Photo: Ori Hi Ltch

UNDERSTANDING THE PLANT-BASED MARKET IN CHINA: CONSUMPTION TRENDS AND CUSTOMER PERSONAS

A mixed-methods study by GoodGrowth.io | Led by Jah Ying Chung and Ella Wong | April 2022

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Executive Summary

What are Chinese consumer attitudes towards plant-based products and the relationship with their current food consumption habits?

This report is intended for entrepreneurs, companies and ecosystem builders in the plant-based industry. We conducted a mixed-methods consumer study with focus groups, diary studies and a national survey to understand how plant-based products can better appeal to different customer segments in China.

We discovered 5 different customer personas, where 84.2% of respondents identified with at least one of the five: Concerned Parents, Convenience Junkies, Social Foodies, Nutrition Optimizers and Vegetarians & Vegans. While "Social Foodies" were most promising for plant-based meat (PBM) because of their high trial and retention rate, "Nutrition Optimizers" followed as those who prioritize the nutritional contents of their food over other considerations.

We encourage readers to use these key insights, personas and industry recommendations as a starting point for strategic planning when developing PBM products for the Chinese market.

OUR RECOMMENDATIONS

Align PBM products with specific consumer needs, behaviours and drivers.

- **Short-term** activation opportunities include increasing product trials, using novelty campaigns to engage Social Foodies, and attracting Nutrition Optimizers with macro-nutritional advantages.
- Retention and broader adoption in the **mid-term** requires genuine competitiveness with animal products (e.g. price, taste, mouthfeel); see Convenience Junkies
- Mass adoption in the **long-term** will likely require shifting entrenched beliefs of PBM, meat consumption and plant-based nutrition.

Introduction

The last few years have seen increasing attention towards the plant-based meat (hereafter "PBM") industry in China. According to *Statista*, China's meat market generated $72B in revenue in 2022 and is expected to grow 13.0% each year from 2022–2027[1].

The seemingly growing demand for healthier and more sustainable alternatives to meat presents an enticing opportunity for the plant-based industry. It also reflects a major opportunity to establish more sustainable food systems in the country.

A key to unlocking this opportunity lies in engaging the Chinese consumer. A nationwide survey in 2018 showed that over 90% of consumers do not identify as vegan, ovo-lacto vegetarian, or pescatarian[2]. So how should alternative protein companies approach the Chinese market?

Consumer research in this field is still nascent, composed primarily of quantitative consumer surveys in Tier 1 cities such as Beijing, Shanghai, Guangzhou and Shenzhen. While these have provided some initial insights on consumer attitudes (e.g. concerns around food safety, quality and product price; preferences for products that are processed, finished or Western-style; high meat consumption and meat attachment; and low food neophobia levels), we still lack a holistic, qualitative and nuanced view of the range of Chinese consumers and their food consumption behaviours.[2,3,4,5]

This gap of knowledge presents challenges for food companies and startups as they develop plant-based products, with limited insights to inform their positioning and placement strategies. The aim of this study is to help fill these gaps.

See page 42 for footnote references

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About This Report

This report and related research is fully funded by the Food Systems Research Fund. The Fund aims to facilitate and disseminate research that answers the most pressing questions that will help the transition away from an animal product-based food system.

The production of this report is led by Jah Ying Chung and Ella Wong at Good Growth, a research and design organisation focused on supporting the growth of ethical and sustainable food systems in Asia.

To learn more about the research and insights from this report, or if you're looking for support for further consumer research related to the plant-based industry, please reach out to info@goodgrowth.io.

All errors and omissions are entirely our own.

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Overview of Contemporary Chinese Food Culture

For those unfamiliar with Chinese eating culture, below are some prevailing principles that guide eating habits and beliefs, which were prevalent throughout our study.

Communal eating

- Meals are usually consumed in family style, where the whole table shares several dishes. This is done both at home and when eating out.
- It is common for adult children to visit parents every week and bring back leftovers for their upcoming meals.
- Meals are a social and bonding experience, as well as a way to experiment and share new flavours.

Conventional wisdom

- When asked *why* one should or should not eat a certain food, many beliefs stem from traditional Chinese medicine, generally learned from parents/grandparents.
- It is common to hear someone say a specific food is “difficult to digest” or “bad for the liver”. Health concerns are a common reason to limit meat consumption.
- There is a saying: “2 legged animals are better than 4”, reflecting the belief that white meat is healthier than red meat.

Meat consumption

- Home meals are quite balanced between meat, vegetables and starch
- Meat is rarely consumed as a large piece of steak or fillet, but as minced or strips mixed with vegetables or tofu to add taste and texture
- The above is not the case when eating out or during celebrations when ordering whole chickens or piglets are common. Some restaurants even serve meat-themed meals, such as an “all-beef” or “all-goose” feast. There is even a saying: “无肉不欢” – a meal is not satisfying without meat
- Each region in China has its own signature dishes and ingredients. This means the types/cuts of meat used varies as well.

METHODOLOGY

Research Objectives

This study seeks to provide a more holistic, action-guiding picture of Chinese consumers and their perceptions towards plant-based products and plant-based meat (PBM).

In the first phase, we used qualitative methods to understand consumers' mental models, including:

- What are the key drivers behind their food consumption decisions?
- What external factors influence these decisions?
- How do they source and prepare their food on a daily basis?
- What are their perceptions of PBM?
- How can we use these attributes to develop useful customer personas?

With personas in hand, we then identified the implications for marketing plant-based products, including product, positioning and placement strategy.

In the second phase, we sought to validate the personas created with quantitative metrics, including:

1. What proportion of Chinese consumers identify with each persona (may be more than one)?
2. What is the age distribution and self-identified diets of each persona?
3. How enthusiastic are they about trying and buying PBM?
4. What qualities about PBM may encourage them to purchase?

Methodology

STEP 1

"Buddy" Focus Group Interviews

Format: 60-90 minute virtual group interviews

Focus:

- What they ate throughout the day
- Who bought and/or prepared the food
- What considerations affected their food choices
- Shown different plant-based products, asked to rank them by likeliness to try and explain reasoning

Participants: Groups of 3. Ten participants were first recruited, then asked to recruit 2 other friends and colleagues to join the same group

STEP 2

Diary Studies

Format and Focus:

a) Participants submitted photo and video entries of food purchases and preparation and mealtime activities over the course of one week, including weekends
b) They were also asked to find one plant-based product at a supermarket or grocery store of their choice and provide feedback

Participants: 15 selected from the focus groups

STEP 3

Analysis: Persona Development

Focus: Develop several user personas as archetypal representations of potential plant-based meat consumers, seeking out their core drivers and differentiators

STEP 4

Survey

Format: A survey using the Qualtrics platform

Focus:

- Introducing respondents to the concept of plant-based meat
- Their familiarity, attitudes, and consumption behaviours of PBM
- Testing the extent to which their food consumption motivators align with the personas developed during the qualitative stage

Defining Plant-based Meat

How do we define plant-based meat (PBM) to focus group participants and survey respondents?

"Buddy" Focus Groups

During a card sorting exercise, the interviewer showed participants images of plant based meat (image A) and asked if they recognize them. If the participants didn't know what they were, the interviewer would explain that PBM is a food innovation that more closely resembles meat than traditional mock meat.

Survey

Before asking survey respondents questions about PBM, we showed them the following prompt (translated to Chinese), and showed them images B-D.

"One food innovation is called plant-based meat. This type of meat is made entirely from plants and has no animal ingredients. This meat is produced using plant ingredients like proteins, fats, and carbohydrates to mimic the structure of conventional meat, making them closer to meat than traditional soy-based meat alternatives. Recent breakthroughs in producing plant-based meat make these products look, taste, and cook similar to their conventional meat counterparts, allowing them to be used in dishes in much the same way as meat. Several companies have launched products in grocery stores and restaurants."

Photo: Line Tscherning

Sample (Qualitative)

Participants were recruited online through our partner agency, Kaizor. Participants received a payment of 300 RMB for the Buddy Focus Group and an additional 300 RMB for the Diary Study. Diary Study participants were shortlisted from the Buddy Focus Groups to represent a range of individuals.

30
Buddy Group participants

15
Male

15
Female

15
Diary Study participants

7
Male

8
Female

6 participants from each city (18-60 yrs old):

1. Beijing
2. Chengdu
3. Jinan
4. Shanghai
5. Zhongshan

Examples of breakfast, lunch and dinner from some of the participants of the Diary Study.

Consumption Categories

We selected participants based on a range of different meat consumption behaviours to avoid making any assumptions about which groups may be more responsive to consuming plant-based meats.

6
Heavy meat eaters

7
Trying to eat less meat

5
Former vegetarians*

7
Average meat eaters

5
Vegetarian or vegan

*tried being vegetarian but gave up

Sample (Quantitative)

Respondents were invited via Wechat by online survey company, Wenjuanxing, to complete a 15-minute online questionnaire.

1206
Respondents

50.4%
Male

48.5%
Female

Education Level

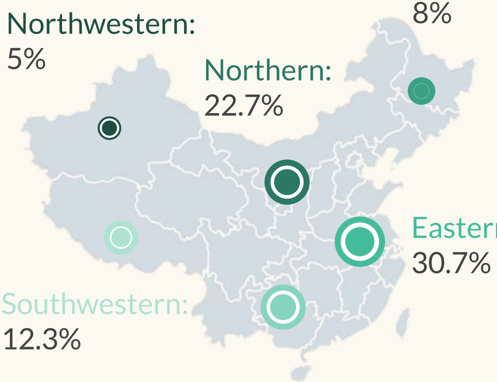
Completed high school: **13.1%**

University (bachelors) or vocational degree: **76.1%**

PhD program & Master's program: **6.7%**

Geographic selection

The respondents of the survey came from different parts of China and can represent the general residents in China.



City tier

The respondents of the survey came from cities from a variety of tiers. For the category "Others", it refers to rural areas below Tier 4.

Assumptions and Limitations

Buddy Group
Buddy Group recruitment was chosen for the sake of both recruiting a larger sample of participants and to encourage honest responses, which Chinese participants are more likely to give in a setting in which they know and trust their counterparts. However, buddy groups can also magnify any peer influences and reduce diversity within groups.

Remote Conditions and Seasonal Effects
Due to Covid-19, interviews were conducted remotely, which may lead to minor losses in communication (such as body language).

The research was conducted in the winter, which may lead to seasonal food preferences, such as hot pot or higher calorie foods.

Surveys
Online self-reported survey data is always limited in terms of its ability to capture real behaviour rather than imperfect recollections or intentions.

There may also be cultural differences when answering on a scale. Studies have shown that Asian cultures are known to use the midrange of a response scale as an expression of modesty (Hui & Triandis, 1989)

Sample and Generalisability
As the purpose of the qualitative phase of this study was to obtain a deeper understanding of Chinese consumer behaviours and attitudes, we used high-touch methods with a 30-person sample, covering a range of diets and cities.

However, since the qualitative findings could not be generalizable to the entire population, we followed up with a quantitative survey to validate personas and other findings with a census-balanced sample (by age and gender).

We used weighting to bring the age and gender balance of the sample in line with Chinese census data. Our sample was demographically similar by region, but skewed towards more urban and better educated respondents.

Photo by Airam Datoon on Pixels

FINDINGS: KEY THEMES

THEME

#1

"Food health & safety" is not just about past food scandals

Health and safety is often cited as an overarching concern for Chinese consumers. In this study, we found that "food health & safety" actually breaks down into several distinct concepts:

Healthiness and additives

Consistent with existing studies[1], perceived healthiness was the strongest predictor of whether consumers said they would buy PBM. Many focus groups participants mentioned additives in PBM as an unhealthy and undesirable feature. Some even pointed to specific ingredients they saw on product packaging, such as edible essence (食用香精).

However, from the food diaries, we found that most participants regularly consume products with additives, like snacks and fast food. It seems that this concern can be overcome by a sense of convenience and/or high product familiarity such as fish balls or packaged seasonings.

"Fake" meat

The next most cited concern in general was regarding "fake" meat. This was likely prompted by past food-related scandals in China, such as dumplings and buns found to contain inedible ingredients. Concerns included so-called "zombie meat," i.e. meat that has long expired; and "mystery meat", the origins of which are unknown.

This sentiment was echoed in some of the responses from participants who said they felt that plant-based products were not "natural", too processed, or "pretending" to be meat. This is further reinforced from our survey where ratings for "realness" and "naturalness" of plant-based meat were lowest compared with other perceived qualities of PBM.

While plant-based products imitating processed meats may be more easily accepted by Chinese consumers, designing the right products and successfully positioning them in consumers' minds (i.e. avoiding association with "fake" or "mystery" meat) will be critical.

Diseases, eggs and dairy

Surprisingly, no participants in the qualitative study mentioned concerns about animal-borne diseases despite the emergence of COVID-19, swine flu and avian influenza.

Similarly, despite major scandals concerning milk and eggs in 2008, no health or safety concerns were raised around these products, both of which were avidly consumed by participants.

> *"去便利店就吃菜包，不放心外面的肉馅，担心是僵尸肉。*
>
> *"If I go to a convenience store I'll eat vegetable buns, I don't feel at ease with outside meat filling, I worry it's zombie meat."*
>
> \- *Participant from Shanghai*

[1]Bryant et al (2019)

THEME

#2

Animal products are seen as vital for growth

There was a general belief amongst participants that animal products, namely meat, fish, milk and eggs, were necessary for a balanced nutritional diet.

This was particularly prevalent in parents with children, who believed meat and milk were crucial for healthy growth and development. One woman switched from being vegetarian back to eating meat when she became pregnant, and parents who had children that did sports would feed them beef to build muscle, particularly for boys. Two vegetarian households would actually cook separate meat dishes for their growing child.

Some participants, however, noted that eating too much meat could lead to high cholesterol, high blood pressure, and a few mentioned hormonal additives. This did not apply to other animal products such as milk and eggs though, which were seen as highly nutritious and necessary (see photo).

和女儿一起 猪肉吃的少一点，一般 给孩子吃鱼吃的比较多，大家都知道 鱼肉营养比较好，低脂肪高蛋白。
小朋友游泳，所以教 练推荐多吃牛肉增加肌肉。长身体的时候，对肉的需求比较大。牛肉脂肪量比猪肉要低，不容易长胖， 鸡蛋每天都要吃。

"With my daughter I eat less pork, in general I give my children more fish, everyone knows that fish is more nutritious – low fat, high in protein.

My children swim, so the coach recommended eating more beef to increase muscle. Growing bodies need more meat. Beef has lower fat content than pork, and it's not as easy to get fat. Eggs you must eat everyday.

\- *Participant from Chengdu*

Fridge of a participant in Zhongshan: it was common to see a large stock of 2 dozen eggs or more. Eggs were the most popularly consumed animal product, with 90% of those surveyed having eaten it in the last month.

THEME

#3

Fast food and big brands are a trustworthy treat

Foreign food influences were observed across cities of all three tiers. Many went to Western or fast food chains such as Pizza Hut, KFC and Korean barbeque when eating out or as a treat to celebrate birthdays.

As big brands are seen as higher end and accountable to international safety and product quality standards, they were also perceived to have better hygiene than smaller local restaurants and were the preferred choice for ordering food delivery.

Children are also a strong driver on this front, as fried chicken, pizza and burgers are often amongst their favourite foods.

Overall, the association with imported foods and flavours could also be seen as an opportunity to flaunt status as well as assure themselves of food safety and quality, both in the case of restaurants and supermarkets.

考虑到卫生问题，不会点中餐。会使用必胜客app和其他外卖app点餐。

"Considering hygiene issues, I wouldn't order Chinese food. I would use the Pizza Hut app or other takeaway apps."

- *Participant from Beijing*

周末会带孩子出去吃点汉堡炸鸡。最近一次，带孩子去了麦当劳吃鸡腿。有时候会吃宵夜 KFC麻辣烫烧烤。

"On weekends, we'll take our child out to eat burgers and fried chicken. Most recently, we took them to eat McDonald's chicken drumstick. Sometimes I'll have a night time snack and eat KFC's spicy BBQ."

- *Participant from Zhongshan*

KFC and other fast food chains are often located in shopping centres for an easy family day out

THEME

#4

“Mouth-feel” is key to Chinese hearts

“口感” (*pronounced: kou-gan*) or “mouth-feel”, referring to the overall sensation arising from chewing and sensing food, is affected by taste, texture and temperature. It is a key feature driving Chinese consumers’ food preferences, and was one of the most important attitudinal predictors of purchase intent.

In some cases, participants bought eggs or beef from certain locations because they were perceived to have a better mouth-feel.

Several participants expressed skepticism about whether plant-based products would be able to replicate the same mouth-feel as animal products, especially for certain types of meat (e.g. fish) or body parts (e.g. innards).

When asked to rate the different qualities of PBM, survey respondents gave one of the lowest ratings for perceived mouthfeel. Poor mouth-feel was also the most common criticism from those who tried plant based products during the Diary Studies, ranging from plant-based yogurt to vegetarian jerky.

Thus, improving the mouth-feel of plant-based alternatives and showcasing it to customers could be an important marketing tactic.

看价格配料口感，看替代肉与真肉相比营养如何，那可以用 这个替代肉和菜。

“I would assess the price, ingredients and mouth-feel, if the nutrition compares to real meat, then can I use this as a replacement.”

- Participant from Zhongshan

这个麻辣素牛肚不是我喜 欢的口感，入口感觉就是豆製品。

“This spicy vegetarian beef tripe doesn’t have the mouth-feel I like, it just tastes like a soy product.”

- Participant from Beijing

Spicy vegetarian beef tripe (red packet) tested by a participant from Beijing

THEME

#5

Soy-based products are familiar but unexciting

The high exposure to soy-based imitation meat “仿荤菜” *(pronounced: fanghun cai)*, which is not the same as common soy products such as tofu and soy milk, seem to have created neutral to negative associations of PBM in the minds of Chinese consumers.

Many participants equated plant-based products with soy-based products, believing that:

- They are not as nutritious as meat
- You should not eat too much because:
    - They could be from GM soy
    - They’re not easily digestible and can be bad for kidneys
    - They have too many additives and require a lot of oil to cook
- They do not taste very good and have inferior “mouth-feel” to meat

Even participants who are vegetarian or meat-reducing, preferred soy products that were closer to their raw form, like tofu or soy milk, and generally only ate imitation meats when they visited vegetarian restaurants.

Several participants in their 40s mentioned that soy products were commonly used to replace meat during food and meat scarcities in the 1970s, and associated these products with poverty and hardship.

所有的产品都是用豆制品做。看到成分表就不感兴趣，添加剂不少，不会考虑。

All these plant based meats are made from soy. Once I see the ingredients, I’m not interested. There are lots of additives; I wouldn’t consider it.

- Participant from Chengdu

Imitation meat snacks at a supermarket in Jinan

THEME

#6

Children and grandparents are key food drivers

Children

Many contemporary families in China have only one child, which often make these “Little Emperors” the centre of attention. Consequently, we found that children are indeed strong drivers behind what food parents decided to buy and cook.

The influence of children on parents is clearly displayed from the survey, with approximately 55% of respondents identifying with the “Concerned Parent” persona, where children’s nutrition and preferences drive their food consumption choices.

During our buddy group interviews, we found that parents would opt for products specifically marketed for children, including products labelled as “child steak” or “kid noodles”, despite there being minimal differences from the standard product.

Eating out or ordering food also focused on appeasing their child’s favourites, such as pizza or burgers. They also said they preferred going to “child-friendly” restaurants.

Grandparents

It is not uncommon for Chinese families to live with their parents or in-laws. As such, grandma (and sometimes grandpa) often helps in grocery shopping or making traditional recipes from scratch (e.g. bread and sausages). It also means that certain dietary needs affect the dishes prepared at home. For example, the family may purchase softer foods so that grandma can more easily chew them.

Many families also visit grandparents on a weekly basis and it is common to bring back leftovers of nostalgic dishes, as well as hometown produce. Hometown eggs, for example, were commonly perceived as more fresh and “natural”.

Old wives’ tales and traditional food beliefs are also passed on intergenerationally, so grandparents are often a source of pressure to eat certain foods. For example, being “encouraged” to consume meat or fish maw while pregnant, or medicinal ingredients such as cordyceps after giving birth.

“Child-friendly steak” bought by a mother from Jinan

THEME

#7

Experimenting with new food happens in social spaces

Conducive social settings

Chinese consumers tend to try new foods when eating with friends and colleagues. This is especially prevalent in settings where food is widely shared, like hotpot and barbeque.

One participant who previously did not eat duck and luncheon meat started to eat these foods after being introduced to them by a colleague. Several participants mentioned that they tried vegetarian restaurants for the first time when they were invited by a friend, and several mentioned participating in group purchases for groceries with their friends and neighbours.

Work is another space where sharing food is a common way to bond. A boss coming back from a trip might bring snacks from a different region, or they might buy a round of goodies to celebrate a special occasion or even just for a meeting. Colleagues often go out or order afternoon tea together. More than half of study participants ate up to 3 meals a day at their company or school canteens, sometimes even on Saturdays. Several even purchased canteen food (e.g. breads) to bring home.

Social media influence

Picking which restaurant to eat from is heavily influenced by recommendation platforms like Dianping. Participants from Zhongshan (Tier 3 city) admitted to driving 3 hours to try highly-rated restaurants in another city.

For those in their 20s–30s, internet celebrities known as "网红" (*pronounced: wang-hong*) also influence food choices. One participant mentioned cooking dishes for his girlfriend by following online videos, and another said that he would only try plant-based products after reading online reviews to make sure they were tasty and safe enough to eat.

Hotpot dinner with friends in Beijing

Takeaways for Stakeholders

Based on the seven key themes, we identified several overarching challenges and opportunities for the adoption of PBM in China:

Challenges

- Concerns around the healthiness of PBM (including additives and the belief that animal products are vital for child development) may prevent consumers from trying PBM products.
- Association of PBM with “mystery” and “fake” meat may erode consumer trust
- Association with traditional soy-based meat replacements decreases attractiveness of PBM
- General dissatisfaction towards mouth-feel of PBM versus real meat likely reduces trial and retention.

Opportunities

- Despite concerns about additives, consumers are still eating processed foods and snacks. Education around PBM’s healthiness and plant-based nutrition, especially compared with animal products, may create more willingness to try.
- Educating consumers on how PBM is made, to tackle "fake" meat and “unnaturalness” concerns
- Co-branding with fast food brands to leverage existing trust in product quality of foreign food companies
- Introducing PBM products in social settings, both physical (e.g. hotpot restaurants) and digital (e.g. Dianping reviews and Douyin cooking videos)

FINDINGS: CUSTOMER PERSONAS

Photo: Kristoffer Trolle

Why Personas?

On a population level, there does not seem to be major push factors driving consumers towards plant-based meat.

As one of the focus group participants said:

这种产品只是适合素食主 义者, 不喜欢吃肉的人，有信仰的人。如果想给孩子吃蛋白 质或蔬菜，就吃真的菜肉。

"This type of product is just for vegetarians, people who don't like meat or religious people. If I want to give my child protein or vegetables, I would just give them real meat and vegetables.

- Participant from Jinan

Instead of a mass marketing strategy, we believe a more targeted approach would be more effective in promoting PBM. This requires a **deeper dive** into the attitudes and motivations of specific segments of the Chinese population.

Photo by Big Dodzy on Unsplash

About Personas

What is a persona?

Personas are fictional characters created based on research findings to represent different types of customers that, in this case, may consume plant-based products.

A persona helps provide us with a lens through which we can develop products and marketing channels suitable to a certain customer segment.

While persona descriptions do not entirely cover the breadth of the customers within the segment, it serves as a guide to highlight common themes around needs, motivations and behaviours, as well as how to approach a particular group.

The defining factor for each of our personas is **what drives their food consumption decisions** — this overrides any other attributes they may have in common with other personas.

How were the personas in this study created?

The motivation behind each persona's food consumption decisions are deduced from responses collected during the qualitative portion of this study.

To validate that the personas we discovered reflected the overall Chinese population, we conducted a census-balanced survey and confirmatory factor analysis. In the survey, we presented three statements that represented each persona's attitudes (towards food consumption), and asked respondents to rate how much each statement applied to themselves.

If a respondent scored an average of 4 or above in each group of three statements, then we categorized them into the corresponding persona. Hence, it is possible for respondents to associate with more than one persona. In addition, we created a separate persona as "vegetarians & vegans" solely based on their self-reported dietary preferences, as we believed that this group would have unique consumption habits compared to meat-eating personas.

Based on their responses, we found that 84% respondents identified with at least one of the five personas.

Personas

NUTRITION OPTIMIZERS

The calorie and macronutrient counter, Women will choose products that help them lose weight, whereas men want foods that will help build muscle.

58%

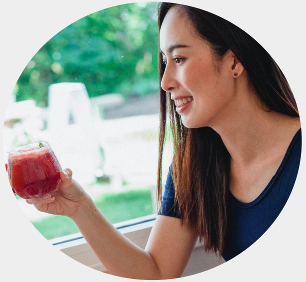
of respondents identified with this persona

CONCERNED PARENTS

Their child's nutrition and preferences are the main deciding factor in what they choose to cook at home and eat on weekends.

55%

of respondents identified with this persona



SOCIAL FOODIES

The social foodie doesn't often eat alone. Trying new things and being able to show off their status or sense of adventure is this persona's raison d'être.

37%

of respondents identified with this persona

CONVENIENCE JUNKIES

Whatever is fastest and easiest is best. This persona is less sensitive to processed foods and additives if the product makes their life easier and tastes good.

29%

of respondents identified with this persona

VEGETARIANS & VEGANS

This category was created solely based on self-reported diet preferences (vegetarian and vegan) from the survey.

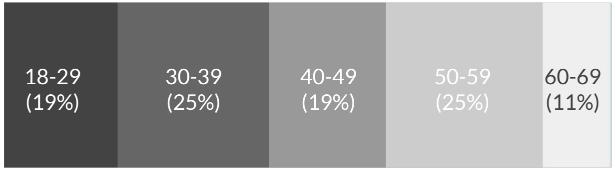
2% & 0.7%

of respondents identified as vegetarians and vegans

Nutrition Optimizer

58% of respondents

Age Distribution



52% Female

54% Omnivore

42% Flexitarian

2% Pescetarian

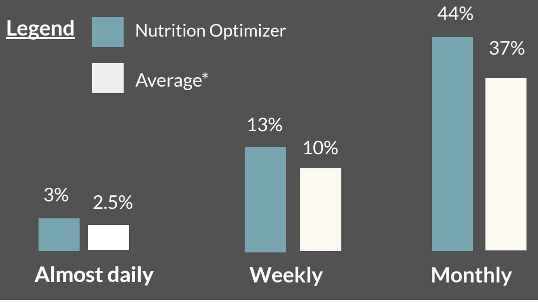
What drives my food decisions:

- I want to stay healthy / fit / look good
- I look at nutrition labels to check protein, calorie and fat content, whatever will keep me within my diet regime (women may skip meals)
- I choose foods based on my fitness goals or medical conditions

Nutritional labels on food stand out to me when I make food purchases.

"I would compare the nutrition of plant-based vs animal products, and check customer reviews on websites and social media in China and overseas"

How often I consume PBM:



How I compare with other personas:

#2 on **INTEREST**

55% are willing to try PBM (if they haven't yet)

#2 on **EXPERIENCE**

67% have tried PBM

#2 on **RETENTION**

56% are willing to buy PBM (after they've tried it)

Photo by Ketut Subiyanto from Pexels

Nutrition Optimizer

58% of respondents

My plant-based perceptions

- I would try it if it helps me keep fit (men), lose weight (women), or improve existing health conditions (older)
- I'll replace meat meals with a plant-based one if it is lower in calories or more nutritious, but just as filling and tasty
- I would do online research before to check safety and health impacts (both positive or negative)

Where I get my food:

No significant difference in behavior compared to other personas

I'm more likely to buy PBM if I think it is:

Tasty

Healthy

Safe

Animal Friendly

Entry point for this persona

Product

- "Fitness meals" — with explicit macro-nutrient information
- Protein products/snacks that can be eaten before or after working out
- Optimising for macro-nutrition content compared to animal products in design phase

Reference products
Protein powder, nutrition-packed congee

Positioning

- Centre messaging around health and fitness
- Use nutrition/calorie labelling and "scientific proof" points, compared with animal protein
- Content that suggests plant-based is healthier/better functionally than real animal products

Placement

- Fitness stores or healthy eating aisle of a supermarket
- Snack machines or cafeteria at the gym or sports venues
- Promotion by pro-athletes and fitness bloggers on social media and online shopping platforms

Concerned Parent

55% of responses

Age Distribution

18-29	30-39	40-49	50-59	60-69	70+
(13%)	(27%)	(23%)	(25%)	(8%)	(1%)

52%	57%	38%	2%
Male	Omnivore	Flexitarian	Pescetarian

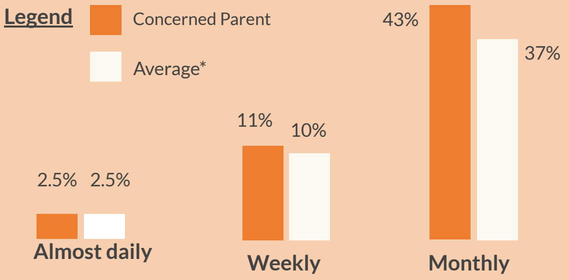
What drives my food decisions:

- The most important thing is for my children to have the right amount of nutrition in their diet
- Meat, milk and eggs are important for my child's growth
- I am more concerned about food safety and additives than other people may be

My children's **nutrition and food safety** is of paramount importance.

"I would try plant-based products, but I wouldn't give it to my children."

How often I consume PBM:



How I compare with other personas:

#3 on INTEREST
50% are willing to try PBM (if they haven't yet)

#3 on EXPERIENCE
64% have tried PBM

#3 on RETENTION
55% are willing to buy PBM (after they've tried it)

Photo by National Cancer Institute on Unsplash

Concerned Parent

55% of responses

My plant-based perceptions

- I may not believe that a plant-based diet can replace the nutritional value of real meat and dairy products, especially for growing children
- I'm curious about whether plant-based products may be a healthier alternative to other things I eat, but I simply don't know much about them

Where I get my food:

MORE likely to buy from supermarket	**LEAST** likely to eat at a fast food restaurant

I'm more likely to buy PBM if I think it is:

Animal friendly

Healthy

Tasty

Safe

Entry point for this persona

Product

- Child-friendly features such as more tender, bite-sized or low in sodium
- Yoghurt or milk-based products may be an easier entry point than "meat", particularly if the product can appeal to a child's taste

Reference products

Plant-based yoghurt, plant-based nuggets

Positioning

- Market the product as a safe and healthy option, making sure that the ingredients and nutrition on the packaging can back up this claim
- Emphasize the use of natural ingredients or the absence of artificial additives
- Use nutrition comparisons to similar products as part of the packaging

Placement

- Positive media from TV or mommy social influencers will help build trust and willingness to try
- Promotional campaigns or tastings at the supermarket may most likely reach this segment

Social Foodie

37% of respondents

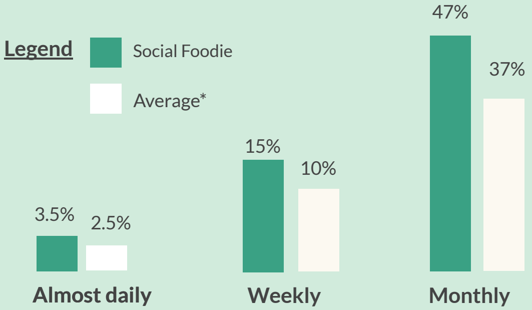
What drives my food decisions

- I love going out to eat at restaurants with my friends
- I am adventurous about trying new foods
- Recommendations from friends and influencers drive my food consumption decisions

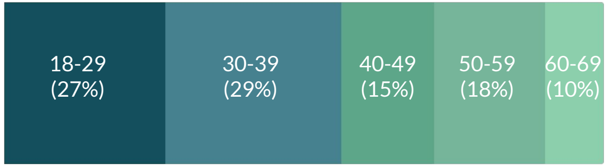
Sharing is caring when it comes to food and information about the latest food trends.

"When I eat out, I'll just have what everyone else wants to eat, and maybe pick 1 or 2 things I like 😉"

How often I consume PBM:



Age Distribution



52% Female

62% Omnivore

35% Flexitarian

2% Pescetarian

Persona Ranking (Out of 5)

#1 on INTEREST
64% are willing to try PBM (if they haven't yet)

#1 on EXPERIENCE
71% have tried PBM

#1 on RETENTION
62% are willing to buy PBM (after they've tried it)

Photo by Sam Lion from Pexels

Social Foodie

37% of respondents

My plant-based perceptions

- I'm happy to give PBM a try: curious to see how it compares to the real thing
- If I'm going to try something different, why not the more unusual products like abalone or spicy beef jerky
- If a friend orders it at a restaurant or brings it to the office, I will try it

Where I get my food:

MORE likely to eat out at restaurants and fast food joints	**MORE** likely to get meals delivered

I'm more likely to buy PBM if I think it is:

Healthy

Entry point for this persona

Product

- Hotpot and barbeque foods, e.g. skewers, fish or meat balls
  -
- The same product available in multiple flavours and marinades for trying and experimenting

Reference products

Hotpot ingredients, veggie meat skewers

Positioning

- Build on the novelty factor and promote it as different from traditional soy-based products
- Market it as cool and trendy, something that influencers are eating
- Leverage the power of collaborations with other brands across industries like fashion / cosmetics etc.

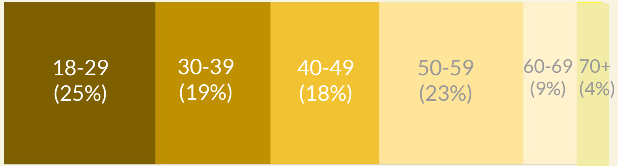
Placement

- Restaurants are a key entry point, especially those that cater to groups like hotpot or BBQ, promote it as a special dish or promotional menu
- Harness the power of internet stars to promote and try the ingredients in their cooking videos and food reviews

Convenience Junkie

29% of respondents

Age Distribution



53% Male

60% Omnivore

3.5% Vegetarian

2% Pescetarian / Vegan

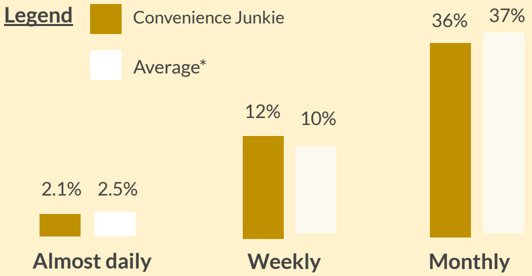
What drives my food decisions

- I usually eat whatever is easiest for me to get my hands on
- When cooking, I will prepare something that doesn't take a lot of time and work
- I may snack a lot, sometimes even instead of proper meals

Ease of access is most important to me when it comes to food.

"Fast and convenient is important to me, I don't really enjoy cooking and just want to eat whatever is easiest."

How often I consume PBM:



Persona Ranking (Out of 5)

#4 on **INTEREST**

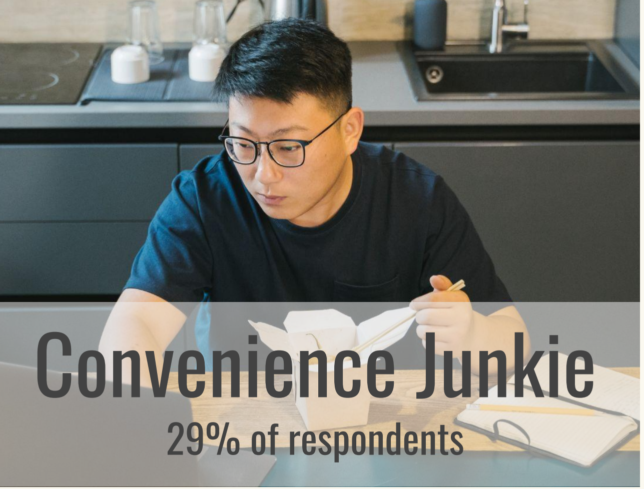
39% are willing to try PBM (if they haven't yet)

#4 on **EXPERIENCE**

58% have tried PBM

#5 on **RETENTION**

43% are willing to buy PBM (after they've tried it)



Convenience Junkie

29% of respondents

My plant-based perceptions

- I’m interested in the ready-to-eat or marinated products, not the “raw” plant-based meats that still require time to prepare
- I’m more likely to eat plant-based meat at a vegetarian restaurant than buy it at a supermarket to make at home

Where I get my food:

No significant difference in behavior compared to other personas

I am more likely to buy PBM if I think it is:

Tasty

Safe

Cool

Affordable

Entry point for this persona

Product

- Instant foods like minced meat or sauces that goes on top of noodles
- Pre-marinated and pre-cut food that can be put straight into a frying pan
- Snacks

Reference products

Prawn crackers, sausages, flavoured noodles

Positioning

- Time indicator on the packaging, e.g. “Ready in 5 minutes”
- Snacks, ready-made food or instant meals that can be promoted as a healthier option

Placement

- Online grocery or food delivery platforms like Hema and Dianping
- Work or school canteens where plant-based meats are incorporated into already cooked meals

Vegetarians & Vegans

2.7% of respondents

Age Distribution

85%
Female

*Of total respondents

2%* Vegetarian

0.7%* Vegan

What guides my food choices:

- I may be Buddhist or Taoist
- I am concerned about my body's health and purity, which includes avoiding meat and additives, and minimising my energy (e.g. caloric) intake.
- I prefer to buy organic and directly from trusted farmers.

Where I get my food:

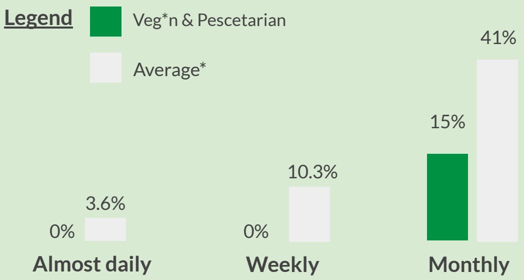
LEAST likely to order takeaway

LEAST likely to purchase groceries online

I simply do not feel the need to eat products that imitate meat.

"I am not that interested in this type of products because of the additives and large amount of oil needed to cook them."

How often I consume PBM:



Persona Ranking (Out of 5)

#5 on **INTEREST**
14% are willing to try PBM (if they haven't yet)

#5 on **EXPERIENCE**
39% have tried PBM

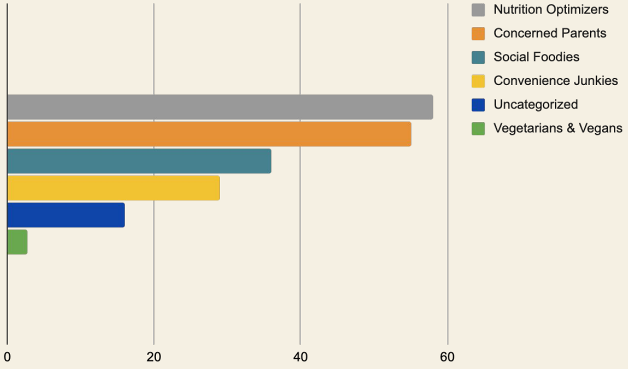
#4 on **RETENTION**
45% are willing to buy PBM (after they've tried it)

Photo by Michelle Lemen from Pexels

Persona Comparisons

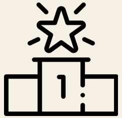
Categorizations

Among those categorized, the **largest percentage** of respondents identified with **Nutrition Optimizers**, followed by Concerned Parents. 16% of respondents did not fit into any of the personas.



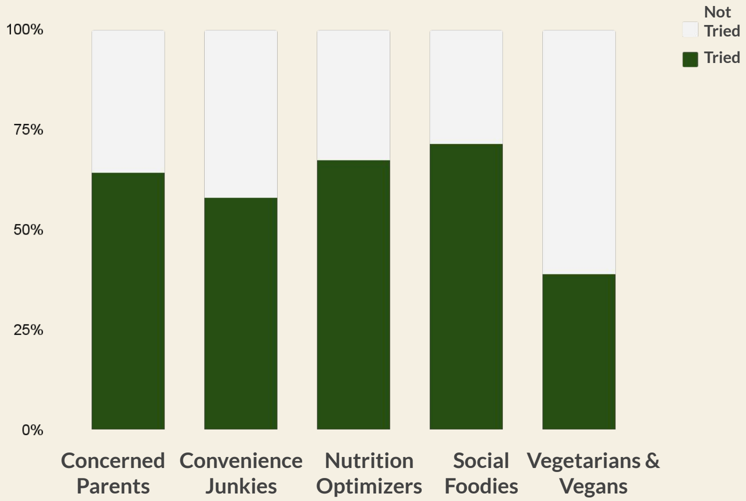
Diets

Convenience Junkies have the most diverse diets:
- 3.5% vegetarian
- 2% pescetarian
- 2% vegan



Social Foodies love their meat: they have the highest percentage (62%) of omnivores with no restrictions on meat.

Experience (% of those who have tried PBM)



There were also some differences in which groups have tried plant-based meat, with the **most Social Foodies having tried it before** while, perhaps surprisingly, only a little over one-third of vegetarians and vegans have trial experience.

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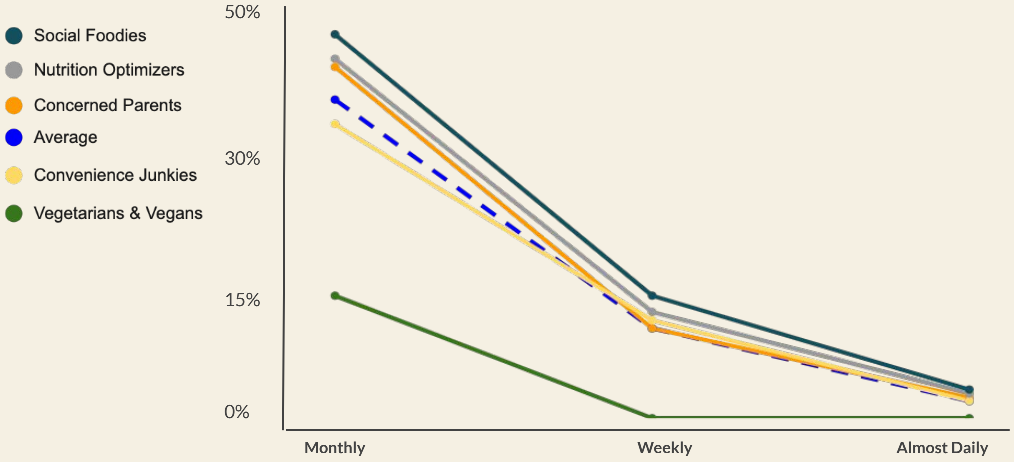
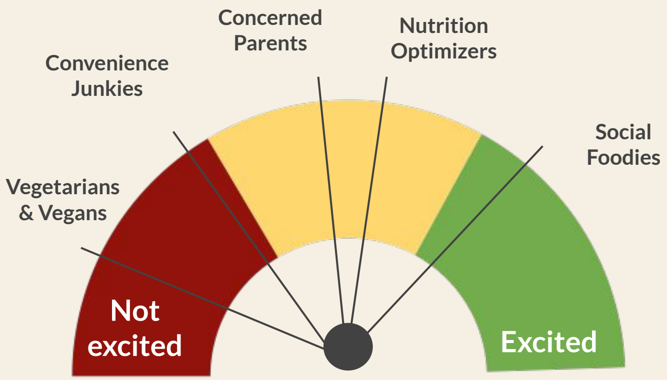
Persona Comparisons

PBM Consumption Frequency



Vegetarians and vegans have indicated they would not consume PBM on a weekly or daily basis at all, while Social Foodies show the highest willingness to consume regularly. Rates for eating PBM almost daily is low across the board (under 4%), showing that PBM is still far from becoming a core food category in China.

Overall Enthusiasm about PBM



When we look at self-reported consumption behavior and trial intent, Social Foodies show the highest levels of enthusiasm compared to other personas. Nutrition Optimizers and Concerned Parents have similar and overall higher levels of trial and purchase intent compared to Convenience Junkies and Vegetarians & Vegans.

CONCLUSION

Photo: Clemens v. Vogelsang

Challenges and Opportunities

The last two years has seen the beginning of growth in China's plant-based meat industry. International brands like Beyond Meat have expanded their operations into China, hoping to drive adoption of their products in a massive but unfamiliar market. Meanwhile, domestic startups like Starfield have emerged, as well as investors and ecosystem builders, who are developing products based on their local knowledge of the market.

Yet, despite the growing excitement from the industry, Chinese consumers are still warming up to this new product category. As we found in our study, familiarity with PBM products is relatively low overall, with only 6.4% who said they were very familiar and 30.4% who were not familiar at all.

It may be tempting for industry players to respond by increasing marketing budgets and running awareness-raising campaigns. However, given that only 48% of consumers who have tried PBM say that they would buy it again, promotional efforts may produce a “leaky bucket”. They may generate growth in trials, but also create churn, as products fail to meet consumer needs and expectations. As seen in our focus groups, few consumers see PBM as a product made for them.

While we identified general challenges and opportunities for the adoption of PBM in China (pg.), the findings of this report clearly indicate that marketing efforts targeted towards specific types of Chinese consumers are much more likely to succeed. At this critical juncture of market growth, we believe that the key question to ask is: **how might we align PBM products with specific consumer needs, behaviours and drivers?**

We conclude this report with persona-based opportunities, looking at the implications for marketing, product and culture shift in the short, mid and long term.

Photo by Ivan Samkov from Pexels

What Might Drive Adoption Across Customer Personas?

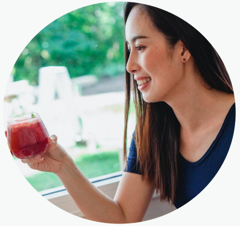
Marketing
Short-term

Product
Mid-term

Culture
Long-term

Nutrition Optimizers:
Promote and improve macro-nutritional profile of PBM

Concerned Parents:
Change beliefs around nutrition of PBM and plant-forward diets for kids



Social Foodies:
Create campaigns that tap into novelty, social and health drivers

Convenience Junkies:
Match animal products on price, taste and convenience

Vegetarians & Vegans:
Change beliefs about PBM "naturalness"

*Size of persona photograph below provides a crude representation of segment size

Opportunities in the Short, Mid and Long-term

Short-term — Targeted Marketing

Direct marketing efforts towards the most promising personas: **Social Foodies** and **Nutrition Optimizers**. Our study shows that these two personas are inherently more willing to try and buy PBM.

Examples:

- Social Foodies: set up product trials in social eating environments, such canteens, office pantries and hot pot/BBQ restaurants
- Nutrition Optimizers: use data and side-by-side comparisons to highlight PBM's macro-nutritional advantages over animal products.

Stakeholders

- Marketing teams
- Retailers and channel partners

Mid-term — Product Refinement

While taste, price and mouthfeel are ongoing R&D challenges, focussing on specific features that speak to customers' core drivers may be a a simpler, interim opportunity to increase adoption.

Examples:

- Nutrition Optimizers: they're looking for "functional" products, e.g. protein powders and health meals, where the macronutrient profile trumps taste.
- Concerned Parents: willing to pay extra for "healthy" products that have child-friendly features

Stakeholders

- Founders
- Food scientists
- Product and marketing teams

Long-term — Culture Shift

Ultimately, mass adoption will require tackling widespread beliefs around the nutritional inferiority of PBM products and plant-based diets. Cultural change will require efforts from across industry, government and civil society.

Examples:

(Some behavioural and belief barriers)

- Animal protein is essential for health, especially for children and puberty
- PBM products are unnatural and unhealthy
- A healthy breakfast consists of eggs and milk

Stakeholders

- Advocates and donors
- Media and influencers
- Marketing teams

References

Footnote References from Introduction on Page 4

1. Statistica. 2020. Consumer Market Outlook — Meat.
2. Zhang et al. 2020. Consumer acceptance of cultured meat in urban areas of three cities in China.
3. IPSOS. 2020. China Artificial Meat Trend Insight.
4. Qing et al. 2014. Consumer Preference for Meat in China: A Case Study of Beijing.
5. Bryant et al. 2019. A Survey of Consumer Perceptions of Plant-Based and Clean Meat in the USA, India, and China.

For more information about the study and findings from this report, please contact info@goodgrowth.io