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Under the reality of climate change, environmental sustainability is not just a PR strategy but a necessity. While we cannot neglect the large share of responsibility held by businesses on embracing sustainable practices, this report focuses on the consumers, as consumers have the power to sway businesses by shifting demand to greener alternatives.

However, a consumer’s green purchasing decisions are also dependent on their understanding of sustainability, and we cannot make any assumptions on Chinese perceptions of sustainability. As a result, we surveyed 1,000 Chinese consumers on their beliefs, habits, and understanding of sustainability. In analyzing the survey data, there were many points that came as a surprise, which we highlight in the report.

We found that there is room in the mass market for sustainability, because while there are fewer environmental activists, there are also fewer climate change deniers. The average attitude towards sustainability was one of willingness and openness. However, relatively few are willing to go out of their way to shop green, hence sustainable products should also have direct benefits to the consumer, such as health and safety.

What else became evident is the vast differences in Chinese sources of information on sustainability. For one, while there are some gaps in the average consumer’s knowledge, there is also an evident correlation between Government propaganda towards sustainability and consumers’ understanding of concepts. With the goal to be Carbon Neutral by 2060, the government is leveraging propaganda to sway its citizens habits towards sustainability. As of today, the focus is on reducing food waste and waste sorting, but in order to reach Carbon Neutrality, the government will inevitably ask its citizens to take more actions, and when that day comes, brands better be prepared.
Highlights from the Report

- Waste sorting is the most eco-friendly action in the eyes of Chinese.
- Millennials are the most likely to change their purchase decision due to environmental concerns.
- Larger cities, higher income and educational background are correlated with stronger environmental sustainability awareness.
- Chinese consumers display a keen interest in sustainable F&B products.
- Younger and higher-income consumers show willingness to pay extra for sustainable products.
- Consumers aren't just interested in the product, they are interested in the process.
- China’s plant-based meat market is driven by meat eaters.
- Young consumers are shaping the sustainable fashion industry.
- There is an unmet demand for second-hand clothing in China.
How is “sustainability” interpreted in China?

The term “sustainability” is a very broad concept in the Chinese language and can be interpreted into many different terms. From our social listening, here are some common definitions shared by Chinese netizens online.
Our “green guilt” survey results
About our survey

The aim of this survey is to understand the beliefs and perceptions of Chinese consumers towards sustainability. In addition, we want to learn about their buying behaviours in relation to environmental sustainability, specifically within the industries of food and beverage, beauty, and fashion.

Who were our 1,000 respondents?

- 8% are from upper-middle class (> 20,000 RMB monthly household income)
- 75% are from tier 1-2 cities
- 54% are millennials
Waste sorting is the most eco-friendly action in the eyes of Chinese

We asked Chinese respondents to rank environmentally sustainable actions based on their perceived impact. Waste sorting is recognised as the “most eco-friendly action” as this initiative has been highly promoted by the government over the last two years, highlighting the fact that the government enacts a strong influence on society’s beliefs towards sustainability.

How eco-friendly are the following initiatives?

<table>
<thead>
<tr>
<th>Initiative</th>
<th>1 - Not relevant</th>
<th>2 - Eco-friendly</th>
<th>3 - Very eco-friendly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste sorting</td>
<td>3%</td>
<td>45%</td>
<td>52%</td>
</tr>
<tr>
<td>Buying reusable products</td>
<td>3%</td>
<td>50%</td>
<td>47%</td>
</tr>
<tr>
<td>Buying bio-degradable products</td>
<td>3%</td>
<td>51%</td>
<td>46%</td>
</tr>
<tr>
<td>Reducing food waste</td>
<td>6%</td>
<td>55%</td>
<td>39%</td>
</tr>
<tr>
<td>Reducing packaging</td>
<td>6%</td>
<td>68%</td>
<td>26%</td>
</tr>
<tr>
<td>Buying organic food</td>
<td>16%</td>
<td>64%</td>
<td>20%</td>
</tr>
<tr>
<td>Going vegetarian</td>
<td>28%</td>
<td>59%</td>
<td>13%</td>
</tr>
<tr>
<td>Buying local products</td>
<td>30%</td>
<td>58%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Daxue Consulting Survey (2022), N = 1,000

Waste sorting is prioritised over reduce in consumption and buying alternative or eco-friendly products, even though actions that reduce consumptions have a more sustainable impact to the environment.

Reducing meat consumption is not widely recognised as sustainable in China, in fact, 28% of Chinese respondents believe it is irrelevant to sustainability.
Chinese views on environmental initiatives counter the 3Rs hierarchy

Despite waste sorting and buying bio-degradable and reusable products having been ranked as the most eco-friendly actions by Chinese respondents, these initiatives are not actually as sustainable as other options involving reducing consumption. Below shows a comparison between the perception from Chinese respondents and how different initiatives are prioritised by adopting the 3Rs hierarchy of “Reduce>Reuse>Recycle” - Chinese consumers almost have an opposite perception on how different actions affect the environment.

The global food system contributes up to 37% of all manmade greenhouse gas in the world, including agriculture, land use, packaging, consumption etc. Source: IPCC (2019)

Despite waste sorting being highly promoted by the propaganda in China, it raises questions as to how effective this initiative is and how much of the waste is sorted and recycled.
# The 3Rs hierarchy explained: Reduce > Reuse > Recycle

As livestock agriculture is the biggest contributor to the global greenhouse gas emission caused by our society, any food-related environmental initiatives will always be prioritised – such as reducing meat consumption and buying organic food. With China’s pledge to be **carbon neutral by 2060**, the government has also announced to **cut meat consumption in half by 2030** due to health concerns, which could ultimately result in a reduction of 1 billion metric-ton of CO2 emissions.

### Reduce packaging
- **High priority**
- **Going vegetarian** massively reduces the amount of food resources expended on raising livestock.
- **Buying organic food**
  Organic farming releases 40% less carbon emissions compared to conventional farming

### Buying reusable products
- **Medium priority**
- **Biodegradable materials** decompose naturally through living organisms like bacteria and fungi. However, both reusable or biodegradable products will inevitably end up in the landfill.
- **Waste sorting** can increase the amount and quality of waste being recycled.

### Buying local products
- **Low priority**
- **Buying local products** can reduce “food miles” (emission from transporting food), save energy, and reduce food waste but have shorter shelf-life which could increase waste.

## Diagram

<table>
<thead>
<tr>
<th>REDUCE</th>
<th>REUSE</th>
<th>RECYCLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduce packaging</strong> and <strong>food waste</strong> can drastically reduce carbon footprint. Reduce food waste.</td>
<td><strong>Buying reusable products</strong> can lower carbon footprint, save energy and natural resources, as well as save money in the long-run.</td>
<td><strong>Waste sorting</strong> can increase the amount and quality of waste being recycled.</td>
</tr>
<tr>
<td><strong>High priority</strong></td>
<td><strong>Medium priority</strong></td>
<td><strong>Low priority</strong></td>
</tr>
</tbody>
</table>

| **Going vegetarian** | **Biodegradable materials** decompose naturally through living organisms like bacteria and fungi. However, both reusable or biodegradable products will inevitably end up in the landfill. | **Buying local products** can reduce “food miles” (emission from transporting food), save energy, and reduce food waste but have shorter shelf-life which could increase waste. |
| **Massive reduction in food resources** | **Lower carbon footprint** | **Reduce carbon footprint** |

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Millennials are the most likely to change their purchase decision due to environmental concerns

In general, younger consumers in China have a higher understanding and awareness on environmental sustainability as they are more educated on this topic than their parents’ generation. Additionally, the flourishing exposure to social media where KOLs occasionally bring this subject to light or promote sustainable products.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1 - Never</th>
<th>2 - Once or twice</th>
<th>3 - More than once a month</th>
<th>4 - Every time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Z</td>
<td>11%</td>
<td>43%</td>
<td>42%</td>
<td>4%</td>
</tr>
<tr>
<td>Millennials</td>
<td>10%</td>
<td>36%</td>
<td>48%</td>
<td>6%</td>
</tr>
<tr>
<td>Gen X</td>
<td>17%</td>
<td>33%</td>
<td>41%</td>
<td>9%</td>
</tr>
<tr>
<td>Boomers</td>
<td>21%</td>
<td>29%</td>
<td>37%</td>
<td>13%</td>
</tr>
</tbody>
</table>

89% of Gen Z and 90% of Millennials have altered their shopping decisions due to environmental sustainability concerns at least once over the past six months, whilst over 32% of all respondents have adjusted their shopping behaviour once a month.

Source: Daxue Consulting Survey (2022), N = 1,000
Larger cities, higher income and educational background are correlated with stronger environmental sustainability awareness

Respondents from higher tier cities and high income households are more likely to adjust their shopping decisions over environmental sustainability concerns due to having a stronger purchasing power and better knowledge. Moreover, alternative eco-friendly products may often be more costly, or may only be available in more developed cities.

### In the past 6 months, have you changed your purchase decisions due to environmental sustainability concerns? (by city tier)

<table>
<thead>
<tr>
<th>City Tier</th>
<th>1 - Never</th>
<th>2 - Once or twice</th>
<th>3 - More than once a month</th>
<th>4 - Every time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1-1+</td>
<td>12%</td>
<td>31%</td>
<td>49%</td>
<td>8%</td>
</tr>
<tr>
<td>Tier 2-3</td>
<td>12%</td>
<td>42%</td>
<td>40%</td>
<td>6%</td>
</tr>
<tr>
<td>Tier 4-5</td>
<td>17%</td>
<td>39%</td>
<td>37%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Almost half of our respondents from tier 1 and 1+ cities have altered their purchase decisions over environmental concerns more than once a month. However, our mass respondents have displayed an unpolarized attitude towards sustainable purchases overall.

### Have you stopped purchasing certain brands due to environmental issues? (by income group)

<table>
<thead>
<tr>
<th>Monthly salary (in RMB)</th>
<th>0-5,000</th>
<th>5,001-10,000</th>
<th>10,001-20,000</th>
<th>20,001-40,000</th>
<th>40,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Never</td>
<td>61%</td>
<td>72%</td>
<td>76%</td>
<td>78%</td>
<td>93%</td>
</tr>
<tr>
<td>2 - Once or twice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - More than once a month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 - Every time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Larger cities and income background often imply higher educational backgrounds, as respondents who are more educated tend to have a better understanding of the concept of environmental sustainability.
Chinese consumers display a keen interest in sustainable F&B products

Chinese people tend to perceive sustainable food as healthy. There is also an increasing health awareness in China due to COVID-19 and government’s policies. As a result, Chinese consumers are choosing more healthy food products which are also eco-friendly.

91% of our respondents believe sustainability plays a role when purchasing beauty products. The rising trend of clean beauty in China has also convinced consumers to have higher requirements for safe, healthy, and functional skincare products.

Despite more than half of Chinese respondents acknowledging the significance of sustainability when purchasing fashion products, 11% believe it is irrelevant.

The F&B industry is the most tied to sustainability in the eyes of Chinese consumers, with 97% saying they believe environmental sustainability is important when buying food and beverage products.

What is your perception of the importance of environmental sustainability when purchasing different products?

Source: Daxue Consulting Survey (2022), N = 1,000
2.1 Beauty industry
Chinese consumers’ perception on clean beauty
Younger and higher-income consumers show willingness to pay extra for sustainable beauty products

10% of Gen Z and 6% of Millennials are willing to pay 50% extra for eco friendly beauty products. Likewise, higher-income consumers are the demographic most willing to pay extra for sustainable products, with 27% of upper-class Chinese consumers willing to pay double.

Would you pay extra for environmentally friendly beauty products?

<table>
<thead>
<tr>
<th>By age group</th>
<th>Increase of price by percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Z</td>
<td>10% 76% 10% 4%</td>
</tr>
<tr>
<td>Millennials</td>
<td>11% 80% 6% 3%</td>
</tr>
<tr>
<td>Gen X</td>
<td>17% 76% 4% 3%</td>
</tr>
<tr>
<td>Boomers</td>
<td>21% 71% 6% 2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>By monthly income group (in RMB)</th>
<th>Increase of price by percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5,000</td>
<td>23% 71% 4% 2%</td>
</tr>
<tr>
<td>5,001-20,000</td>
<td>10% 80% 7% 3%</td>
</tr>
<tr>
<td>20,001-40,000</td>
<td>7% 78% 8% 7%</td>
</tr>
<tr>
<td>40,000+</td>
<td>4% 74% 27%</td>
</tr>
</tbody>
</table>

Source: Daxue Consulting (2022), N = 1,000
Consumers aren’t just interested in the product, they are interested in the process

The demand for clean beauty, commonly recognized as products that don’t include ingredients suspected to be harmful to the individual’s health or the environment, is on the rise in China. Beauty products utilising traditional Chinese medicine (TCM) are also a trend of green beauty, which fuse natural and sustainable ingredients that Chinese consumers increasingly favor.

Green beauty is beauty products with sustainable packaging and ingredients.

1. Sustainable packaging:
   Such as refillable packaging, glass, bamboo, and if plastic is used, it must be 100% recyclable or bioplastic.

2. Sustainable ingredients:
   Ingredients must be conscious or “clean” and biodegradable, and not be harmful to both human and the environment. Palm oil or any of its derivatives must not be used nor be linked to mass deforestation.

Kiehl’s, La Roche-Posay and Origins have been leading China’s clean beauty market as international brands. However, it still remains a relatively niche market in China.

With over 89% of Gen Z and millennial consumers willing to pay extra for clean beauty products, this creates tremendous opportunities for brands to tap into the clean beauty market in China.

Source: Daxue Consulting (2022), N = 1,000

Other popular sustainable beauty brands mentioned on Xiaohongshu:
- Miriam Quevedo
- Germaine de Capuccini
- Emma Hardie

Source: Xiaohongshu
The image of “clean beauty” is dominated by foreign brands

Despite many of the brands below being mentioned, **22.5%** respondents remain uncertain about any clean beauty brands. Furthermore, a majority of these brands recognized as sustainable are foreign, implying that **domestic brands in China** have potential to enter the clean beauty market or further innovate into this sector. The use of **TCM** distinguishes Chinese beauty brands from foreign ones.

Source: Daxue Consulting Survey (2022), N = 1,000

**22.5% respondents were unclear**

Percentage of mentions by respondents
The different sustainable actions done by domestic and foreign beauty brands

Below shows the top results from our respondents based on the percentage mentioned, showing a mix of both domestic and foreign beauty brands.

### Domestic beauty brands

- **Dabao** (6.5%)
- **Pechoin** (5.5%)

大宝 Dabao and 百雀羚 Pechoin are both Chinese skincare brands with diverse product ranges and are popular for their affordable pricings and men’s care collections. Pechoin also utilises TCM ingredients in their products, which is recognised as sustainable and “clean”.

- **Chando** (4%)

自然堂 Chando, a Chinese beauty brand utilising rare natural resources from the Himalayas, such as glacier water, snow lotus, and snow ginseng, relies heavily on its R&D concept on combining nature and technology.

### Foreign beauty brands

- **Lancôme** (5%)

Lancôme, owned by L’Oréal, is on the right path to growing sustainably, such as 99% of roses in its products being organic.

- **Estée Lauder** (5%)

Estée Lauder, an American makeup company, has put sustainability as one of its key business strategies. Examples include achieving 100% net zero emissions in and is committed to obtain at least 75% sustainable packaging by 2025.

- **L’Oréal** (4.5%)

L’Oréal, the French cosmetics giant, is one of the world’s most ethical companies. At least 80% of its raw materials are biodegradable, 59% are renewable, and the brand aims to have 100% sustainable packaging by 2025.
2.2 F&B industry
Chinese consumers’ perception on sustainable F&B products
Chinese respondents show an open attitude towards sustainable F&B products

Regardless of income level and age group, Chinese respondents present a high willingness to pay extra for eco-friendly food products. After the COVID-19 outbreak along with government policies and support advocating for public health, there has been an ever-growing health consciousness in China. Likewise, consumers are inclined to purchase environmentally friendly food products also because they believe it is healthier.

Would you pay extra for environmentally friendly food products?

Chinese consumers from all age groups display very similar attitudes towards spending additional for eco-friendly food products.

- 7% of Gen Z and Millennials
- 6% of Gen X and baby-boomers are willing to pay at least double for sustainable food products.

Majority of our Chinese respondents are willing to spend 5-20% extra for more sustainable food products.

However, another survey by McKinsey reported a third of Chinese consumers prefer organic food, but only 1% actually follow through with the purchase, demonstrating a gap between willingness to pay and actual purchase habits of Chinese consumers.

Source: Daxue Consulting Survey (2022), N = 1,000
McKinsey China Consumer Report (2021), N = 2,000
Fast-food chains are top-of-mind when thinking about sustainable F&B brands

Over 18% of Chinese respondents admitted to being uncertain about eco-friendly food and beverage brands, in addition to many of the so-called ‘sustainable F&B brands’ mentioned below are fast food chains. Perhaps this indicates a lack of knowledge and misconception in this subject matter. Consequently, sustainable F&B brands should focus on educating Chinese consumers on what sustainable food is, such as the impact of agriculture and production process they cause to the environment.

Source: Daxue Consulting Survey (2022), N = 1,000

Percentage of mentions by respondents
18.2% respondents were unclear
The mystery behind why Chinese believe fast food giants like KFC are sustainable

Fast-food chains are being labelled as “eco-friendly” by our respondents. However, it is crucial to note that these American fast food giants operate differently in China. Below shows the top 3 results from our respondents based on the percentage mentioned, and some of the initiatives these franchises have accomplished in the country.

**KFC in China:**
- 9.2%
- KPRO – a healthy concept eatery by KFC featuring fresh salad and juice bars, and other healthy dishes
- Ditched plastic trays and uses metal and wooden cutleries

**McDonald’s in China:**
- 7.0%
- Focuses on green supply chain
- Currently has over 800 LEED-certified* green restaurants
- Aims to reduce over 26,000 tons of emissions and 4,000 tons of plastic use per year

**Starbucks in China:**
- 3.5%
- Promotes waste reduction – discount of RMB 4 for bringing your own cups/containers
- Launched its first “Greener Store” in Shanghai using recycled and lower-impact materials like wood from other Starbucks stores.

All three chains, KFC, McDonald’s, and Starbucks have also cut out plastic straws, offered vegan/meatless options (e.g. Beyond Meat, OmniPork, Oatly), as well as have introduced sustainable packaging like using paper bags and biodegradable plastics.

To conclude, there are clear implications linking to these three fast-food chains acting and growing environmentally sustainably as businesses. Although a lot can still be implemented, these actions have proven to other restaurants and F&B brands to follow.

*LEED-certification – a globally recognized symbol of sustainability achievement and leadership.*
China’s plant-based meat market is driven by meat eaters

Chinese consumers are showing interest in sustainable food brands in China, which creates opportunities for both domestic and foreign F&B brands to enter the market. However, awareness and availability of sustainable food remain low, hence sustainable F&B brands could focus on an educational-based market strategy to tap into the new consumer groups.

Apart from the American fast-food giants being listed as eco-friendly, some respondents also suggest eating vegetarian, vegan, organic, local, or homemade food as sustainable, as well as restaurants that use recyclable packaging and utensils.

In the meantime, the increasing health consciousness (especially among younger people) has also led to a growth in Chinese people being open to try plant-based meat (植物肉), even if they are not vegetarians.

19% of respondents would eat mainly plant-based meat with only a small amount of real meat, whilst 4% would completely replace real meat with plant-based meat. Likewise, China is the largest meat substitute market, generating around USD 2.1 billion.

Top plant-based meat brands in China 2020:

Source: DATA100 Insight (2020), N = 930

Attitude towards eating plant-based meat (PBM) products in China as of April 2020

Source: DATA100 Insight (2020), N = 3,770
Health drives China’s estimated 50 million vegetarians to cut out meat

On Xiaohongshu, netizens actively discuss their reasons for going vegetarian and vegan, the most mentioned reasons are to stop the support of animal agriculture, personal health, and due to an overall shift in values. In a 2019 Chinabaogao survey on the motivations of Chinese vegetarians, 36.2% said it was for health, while 23.6% said animal welfare.

“I became a vegetarian not because I wanted to lose weight, but because I want to do my part of not supporting the animal husbandry industry today.”

“I watched a TED talk called ‘101 reason to go vegan.’ Go watch it if interested, the video listed statistical and logical analysis, and this is the TED talk persuaded me.”

Why consume diary milk when 60% of humans suffer from lactose intolerance? For calcium? Data shows that the U.S. is the no.1 diary consumption nation, so why do many of them still suffer from lack of calcium and bone rarefaction?
Some Chinese netizens say vegetarianism is western propaganda

Based on social listening from Xiaohongshu, some Chinese netizens believe that vegetarianism is an indoctrination from the West.

In 2016, the Chinese government published a “Dietary Guidelines for Chinese Residents” (中国居民膳食指南):

- Suggests the daily consumption of meat should be 40-75g per person (compared to 50-100g before)
- Aims to improve the national health of Chinese citizens due to the growing obesity and diabetes rates in China

Consequently, the Western media claimed that the Chinese government will “reduce meat intake by 50% as part of the 2060 carbon neutral plan”, which sparked the confusion of Chinese people.

The Dietary Guidelines had no correlation to China’s emission reduction goals, but simply a guide on how to eat meat in moderation. As a result, this explains why some Chinese netizens would believe that the advocacy of vegetarianisms or reducing meat intake was a repercussion of the West.

“The advocacy of plant-based meat is a conspiracy from the West. The same thing happened previously when the West quoted “eating shark fins kills sharks”, as a way to brainwash Chinese people to stop eating shark fins, therefore excluding China out of the shark fin’s global market. I hope young people today can be more alert. Don’t get fooled and think that you are doing lofty things.”

Source: Xiaohongshu
2.3

Fashion industry

Chinese consumers’ perception on sustainable fashion
Young consumers are shaping the sustainable fashion industry

88% of Millennials and 89% of Gen Z showed willingness to spend extra on environmentally friendly fashion products. Meanwhile, over 75% of Chinese consumers from all income background are also inclined to spend additional, including 20% of upper class consumers who are willing to pay double for environmentally friendly fashion products.

How much extra would you pay for environmentally friendly fashion products?

77% of our Chinese respondents are willing to spend 5-20% extra for sustainable fashion products.

Once again, this demonstrates that the mass market has an unpolarized attitudes towards green consumption.

Source: Daxue Consulting Survey (2022), N = 1,000
China throws away 26 million tons of clothes every year

Due to majority of clothing purchases in China being fast fashion (mass produced, cheap and short-lived garments), the country throws away as much as 26 million tons of clothes every year, with less than 1% of which being reused or recycled. Although the underlying solution would be to buy less clothing, the ever-growing economic development in China will not slow down Chinese consumers on further purchasing clothing, especially in luxury fashion.

The global fashion industry:
- Accounts for up to 8% of global carbon emissions
- The second-biggest consumer of water
- Generates up to 20% of the world’s wastewater

How to reduce fashion environmental impact?
- Buy second-hand clothing
- Donate or try to repair unwanted clothing
- Quality over quantity
- Buy from sustainable clothing brands

Reusing 1 kilogram of clothing can save up to:
- 3.6 kg of carbon dioxide
- 6,000 litres of water
Compared to making garments from virgin resources

Source: UNEP (2021), MDPI (2016)

We need to buy less clothing.

Alan Wheeler
(General delegate of the textiles division at the Bureau of International Recycling)
However, the stigma against second-hand clothes is still strong

Many netizens on Zhihu and other social media platforms express concern with the **level of hygiene** and **uncertainty** of second-hand clothing, and as a result, have a fairly sceptical perception on it.

> “When people see second-hand clothes, they don’t think eco-friendly, they think poverty.”
> 38 year-old Chen Wen, a Hangzhou resident

> 二手衣服?
> 二手衣服/古着衣服到底能不能穿。很喜欢古着衣服，想买古着衣服尝试，但是看到一些文章说，二手衣服有携带病毒的可能性（乙肝、艾滋之类的）而且只是简单的清洗还不能灭菌灭毒。建议不要穿，让我有些动摇不敢穿了。所以想请教知乎上的大神吗？请问二手衣服真的会传染病毒吗？可以放心穿吗？

There is a high possibility that second-hand clothing **carries diseases** (liver disease or HIV). Although it is easy to clean, it is **impossible to remove germs**. I am too afraid to wear second-hand clothing.

> 现在衣服这么便宜，为什么还有人买二手的衣服?
> 搞不懂现在衣服这么便宜，并且卖衣服的这么多，尤其是孩子的衣服，为什么有人会买别人不穿的衣服，并且是不认识不舒服的人的衣服，不怕有传染病吗？

I don’t understand why people would purchase second-hand clothing where you don’t know **who has worn it previously** and whether the clothing **carries any diseases**?
It is highly convenient to make clothing donations in China

Donating and repurposing old clothes are common actions taken by Chinese consumers, whilst selling old clothes does not seem to be as popular, despite being widely accessible on many e-commerce platforms.

Have you done the following initiatives over the past year?

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donated old clothes</td>
<td>69%</td>
</tr>
<tr>
<td>Repurposed old clothes</td>
<td>68%</td>
</tr>
<tr>
<td>Recycled old clothes</td>
<td>30%</td>
</tr>
<tr>
<td>Sold old clothes</td>
<td>21%</td>
</tr>
<tr>
<td>None of the above</td>
<td>5%</td>
</tr>
</tbody>
</table>

Donating and repurposing second-hand clothes are highly accessible in China as collection bins in residential neighbourhoods can be found in most major cities.

Source: Daxue Consulting Survey (2022), N = 1,000

Fast-fashion brands allow in-store donations, while apps make donating even more convenient with door-to-door collections

Retail stores
Both Uniqlo and H&M offer clothing recycling service at all their store locations in Shanghai.

Online platforms
Alibaba’s Flying Ant (飞蚂蚁) provides a clothing recycling service across China via a simple step of scheduling pickup-times.

Baijingyu (白鲸鱼), a public charity platform that advocates environmental protection, offers free door-to-door clothing collection service for recycling used and old clothes.

92 recycle (92 回收), a mobile app platform that offers “real-time recycling” service.
There is an unmet demand for second-hand clothing in China

Only 15% of Chinese consumers have purchased second-hand clothing before, among the younger generations are the biggest consumers. However, 40% are willing to try, demonstrating a room for potential market growth. China has many options for consumers to purchase and resell second-hand clothing, however, the current second-hand market is dominated by Alibaba’s Idle Fish and Zhuanzhuan.

Would you buy second-hand clothes?

By age group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>I have bought it before</th>
<th>I haven't but would like to try</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Z</td>
<td>20%</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>Millennials</td>
<td>17%</td>
<td>43%</td>
<td>40%</td>
</tr>
<tr>
<td>Gen X</td>
<td>8%</td>
<td>31%</td>
<td>61%</td>
</tr>
<tr>
<td>Boomers</td>
<td>8%</td>
<td>15%</td>
<td>77%</td>
</tr>
</tbody>
</table>

Source: Daxue Consulting Survey (2022), N = 1,000

Top platforms for buying and selling second-hand clothing in China:

1. **Idle Fish (闲鱼)** – Alibaba’s version of eBay, represents 70.7% of China’s total resale market
2. **Zhuanzhuan (转转)** – a second-hand goods platform backed by Tencent
3. **Xiangwushuo (享物说)**
4. **Paipai Secondhand (拍拍)**
5. **Goshare2 (只二)** – a second-hand trading platform targeting female consumers.

Source: Downyi (2021)
Instead of throwing away old clothes, why not invest in sustainable clothing?

Patagonia, Adidas, Uniqlo, and allbirds are making good progress and demonstrating some leadership in acting sustainably, according to Good On You – a platform that provides ratings on brands based on social and environmental issues facing the fashion industry to examine a brand’s impact on people, animals, and the planet.

However, the other brands being mentioned below are considered unsustainable, unethical, or have provided little to no relevant or concrete information regarding their sustainably practices. 22.7% respondents were also unable to name any sustainable clothing brands. This suggests that brands could exercise more eco-friendly movements to their manufacturing process and overall brand image, which would appeal to Chinese consumers.
### Chinese respondents’ top choices of sustainable fashion brands

Out of the top seven clothing brands named by our respondents, only three have taken significant steps towards sustainability.

<table>
<thead>
<tr>
<th>Brand</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Li-Ning</td>
<td>12.5%</td>
<td>Being a Chinese sportswear apparel brand with 30 years of history and the face of an Olympic champion, Li-Ning’s main objective follows the fashion trend of <strong>guochao</strong> (国潮).</td>
</tr>
<tr>
<td>Uniqlo</td>
<td>9.7%</td>
<td>Japanese casual wear label, Uniqlo, has taken adequate steps such as <strong>repurposing 620,000 jackets</strong> and <strong>reduced greenhouse gas emissions</strong> by 38.7% in 2020.</td>
</tr>
<tr>
<td>Adidas</td>
<td>3.8%</td>
<td>Adidas practices good policies to audit suppliers, uses <strong>recycled materials, reduced water consumption</strong> and <strong>CO2 emissions</strong>, and many other impacts.</td>
</tr>
<tr>
<td>Anta</td>
<td>3.8%</td>
<td>China’s leading sportswear group, ANTA, is constantly promoting the <strong>R&amp;D of sustainable</strong> and eco-friendly products, collaborated with WWF, SDGs, and others.</td>
</tr>
<tr>
<td>ERKE</td>
<td>3.5%</td>
<td>There is no evidence that China’s leading sports brand, ERKE, is working towards being sustainable. Rather, ERKE is aiming to become a worldwide leading brand.</td>
</tr>
<tr>
<td>Nike</td>
<td>3.4%</td>
<td>Despite being the world’s <strong>largest athletic apparel company</strong>, Nike is not taking enough initiatives towards environmental sustainably and only uses some recycled materials.</td>
</tr>
<tr>
<td>Muji</td>
<td>2.5%</td>
<td>With minimalistic being the philosophy of Japanese retail company, Muji still has a long way to go to being eco-friendly as the brand predominantly uses <strong>plastic</strong> and <strong>polyester</strong>.</td>
</tr>
</tbody>
</table>
3. Hypotheses on the future of sustainable consumption in China
Hypotheses on the future of sustainable consumption in China

How can brands accommodate the changing “greener” consumer behaviour? What can brands do to market sustainability to cater to Chinese consumers? Which industries will be more favoured aligning with the carbon neutral plan by 2060? Daxue Consulting concluded four hypotheses on the future of sustainable consumption in China.

1. As long as sustainability is associated with health and safety, it will be prioritised by Chinese consumers.

2. The government propaganda will be the strongest factors in influencing Chinese perceptions of sustainability.

3. A potential growth for green consumerism exists in the mass market as it is not only driven by environmental activists and there are few climate change deniers in China.

4. In China’s journey to zero-carbon, the transition of the meat industry will be eluded for a longer time.
3.1

Hypothesis 1

As long as sustainability is associated with health and safety, it will be prioritised by Chinese consumers.
Despite Chinese consumers making more sustainable purchases, the concern over health outweighs concerns for the environment. However, products that are healthy tend to align with green consumption, as a result, Chinese consumers are very willing to consume products that have smaller ecological footprints. Green marketers should take into consideration Chinese consumers’ priority for health and safety.

COVID-19 has become a main driver for Chinese people to emphasise the importance of health and safety.

- 72% of Chinese respondents intend to pursue a healthy lifestyle
- 69% of Chinese consumers believe eco-friendly food is more healthy
- 72% of Chinese consumers mind having pesticides in their agricultural products

The increase in health consciousness will encourage Chinese consumers to choose more sustainable food products. One existing case is the government’s concern for health leading to the recommendation of decreased meat consumption.

Source: Daxue Consulting Survey (2022), N = 1,000
McKinsey China Consumer Report (2021), N = 2,000
Accenture China Consumer Study (2021)

According to our research on Chinese luxury brands, we find that Chinese consumers today prefer natural and safe ingredients in products, such as clean beauty or products that contain traditional Chinese medicine (TCM).

**Domestic beauty brands which use TCM ingredients:**
- MAYSU (美素)
- Pechoin (百雀羚)
- Florasis (花西子)

Source: Daxue Consulting The Emergence of Chinese Luxury Brands Report (2022)
3.2 Hypothesis 2

The government propaganda will be the strongest factors in influencing Chinese perceptions of sustainability.
The Chinese government uses propaganda to promote sustainable actions

The goal of becoming “carbon neutral” by 2060 advocates for citizens to take sustainable actions. As a result, posters, ads, and text messages promoting environmental protection are increasingly common in China. The following shows a few examples collected by our team in China.

On Xiaohongshu, posts related to sustainability on Chinese social media have increased by 5 times year-on-year in 2021.

Screenshots of text messages from the government promoting waste sorting and reducing food waste:

- 蜚名健康 有你有我
  市委文明办温馨提醒：保持社交距离，增强防病意识，科学佩戴口罩，注重咳嗽礼仪，推行垃圾分类，绿色低碳出行。

- 文明餐桌，从我做起
  一粥一饭当思来之不易，半丝半缕恒念物力维艰。拒绝浪费，珍惜粮食，从我做起，从今天开始，期待您加入我们的“光盘族”！【中共厦门市委文明办宣】

Waste sorting is mandatory in 46 major cities across China today, aligning with the “Zero Waste Cities” plan.

Common propaganda phrases incentivising people to be more sustainable:

- 文明城市有你有我
  “A civilized city involves both you and me”

- 垃圾分类从我做起
  “Waste sorting begins with me”

- 美化家园，人人有责
  “Everyone is responsible of creating a beautiful environment for our home”

- 不要浪费，珍惜你的食物。
  Don’t be wasteful, cherish your food.

- 实施垃圾分类，绿色生活。
  Carry out waste sorting, travel green and low-carbon.
Chinese beliefs around sustainability correlate with recent propaganda

Thanks to the government’s propaganda, our respondents are most familiar with actions like “waste-sorting” and “recycling” when asked about their familiarity with sustainable actions. Yet, they are less familiar with terms like “organic” and “GMO” which haven’t been mentioned in propaganda and are related to environmental sustainability.

How familiar are you with the following terms?

- **Waste Sorting**: 87%
- **Recycling**: 77%
- **Sustainable**: 75%
- **Biodegradable**: 72%
- **GMO**: 60%
- **Organic**: 50%
- **Fair Trade**: 31%
- **Bio-based Product**: 16%

**Source**: Daxue Consulting Survey (2022), N = 1,000

- **Fair trade (公平贸易)**, is a system of certification that aims to ensure a set of standards are met in the production and supply of a product or ingredient.

- **Bio-based products (生物基产品)** are products that are composed of biological products or renewable domestic agricultural materials or forestry materials.

- **GMO (转基因生物)**, genetically modified organism, is a plant, animal, microorganism, or other organism whose genetic makeup has been modified in a laboratory using genetic engineering or transgenic technology.

- **Biodegradable (可生物降解)** is when a material can be broken down by microorganisms into water, carbon dioxide, mineral salts, and new biomass within a defined period of time.

Brands can stay on-par with propaganda for a win-win

As Chinese consumers’ perception of sustainability adheres to the government, brands can take advantage of this opportunity and promote sustainability-related campaigns in accordance to the regime and consumers’ desires. The concepts consumers are most aware of are waste-sorting, recycling, and carbon-neutrality.

**KFC China** aligns itself with **carbon neutrality & waste sorting**

Waste and plastic reduction initiatives:

- Expanded its **reducing food waste program** to over 120 KFC restaurants
- Installed **assorted waste bins** in 46 cities and provided customers with **sorting guidance**
- Launched a **Plastic Reduction Initiative**: “Be Natural, Be You”
- Created a Super App used by over 28 million people which rewards actions that align with “**The Journey to Carbon Neutrality**”

**Starbucks China** emphasizes **recycling** in its Greener Store

**Greener Store:**

- “Recycle” is mentioned 11 times in the official store description on Starbucks’ website, while “biodegradable” is mentioned once.
- The store uses recycled cups, recyclable kitchen materials, and recycles coffee grounds as fertilizer.
- Wood recycled from Shanghai and Beijing store renovations was used to make countertops and tables.

Source: Yum China (2021)

Source: Starbucks, PR Newswire (2021)
3.3 Hypothesis 3

A potential growth for green consumerism exists in the mass market as it is not only driven by environmental activists and there are few climate change deniers in China.
Green consumerism will become less polarised and more mainstream in China

In comparison to other countries, a majority of the Chinese public have adapted to a **less carbon-intensive lifestyle**. For example, **shared bikes** are a popular method of **low-carbon travel**. Other common precedents include the ownership of electric vehicles and solar panels.

China has the **highest ownership** for both EV and solar panels among other countries like the U.S., UK, South Korea, and France. For those who don’t own these products, Chinese people display a **keen interest for potential purchases**.

---

**Home solar panel ownership and potential**

<table>
<thead>
<tr>
<th>Country</th>
<th>Owns now</th>
<th>Interested in future</th>
<th>Not interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>24%</td>
<td>56%</td>
<td>20%</td>
</tr>
<tr>
<td>USA</td>
<td>16%</td>
<td>46%</td>
<td>38%</td>
</tr>
<tr>
<td>South Korea</td>
<td>12%</td>
<td>56%</td>
<td>32%</td>
</tr>
<tr>
<td>UK</td>
<td>11%</td>
<td>48%</td>
<td>41%</td>
</tr>
<tr>
<td>France</td>
<td>9%</td>
<td>32%</td>
<td>59%</td>
</tr>
</tbody>
</table>

**EV ownership and potential**

<table>
<thead>
<tr>
<th>Country</th>
<th>Owns now</th>
<th>Interested in future</th>
<th>Not interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>70%</td>
<td>23%</td>
<td>7%</td>
</tr>
<tr>
<td>South Korea</td>
<td>53%</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>USA</td>
<td>38%</td>
<td>10%</td>
<td>52%</td>
</tr>
<tr>
<td>UK</td>
<td>41%</td>
<td>6%</td>
<td>53%</td>
</tr>
<tr>
<td>France</td>
<td>35%</td>
<td>6%</td>
<td>59%</td>
</tr>
</tbody>
</table>

---

Source: Dynata, Lightspeed, Mintel (2021), N = 500 internet users
Chinese unpolarized perception on climate change

We have analysed a sample of 100 posts on Zhihu relating to climate change (全球变暖) and find that the mass majority of Chinese netizens present relatively unpolarized perceptions on global warming.

Social listening on Chinese people’s attitudes towards global warming (as of 2022)

45% of posts shared a belief that global warming is **endangering our lives** and are willing to tackle the problem.

21% are environmental activists who express strong views to **fight global warming**.

29% of netizens do not have a clear stance on whether **global warming and sustainability matter**.

Only 5% are environmental nonbelievers or regard global warming as a conspiracy.

When marketing environmentally friendly products such as plant-based meat or sustainable fashion, brands can target the **mass Chinese market** who are neither environmental activists nor climate change deniers.

Source: Zhihu
While there’s few climate-change deniers, there’s also a low number of activists

The relatively low number of environmental activists in China is also reflected in the low number of vegetarians who are driven by environmental reasons. However, the plant-based meat market has penetrated the masses who eat meat rather than being driven purely by those with plant-based diets.

Vegetarianism in India is mainly driven by religious reason and traditional social norms.

Vegetarianism in Germany and the UK is mainly driven by concerns over animal welfare and the environment.

Reasons for reducing meat intake in China

- Health: 64%
- Personal weight: 57%
- Environment: 40%
- Animal welfare: 17%

Flexitarianism is preferred in China over being fully committed to vegetarianism or veganism, which has also accelerated the alt-protein market.

Source: The Hartman Group (2021), N = 4,528, AWA (2021), Statista Global Consumer Survey (2021), N = 2,049
Green consumerism in China will be made up of a mass majority who are neither apathetic nor passionate

Overall, Chinese people demonstrate a **high level of awareness of climate change** as the general public acknowledge that the issue was human caused. Chinese people also display a relatively **high willingness to pay more** for environmental and climate-friendly products, among **food products** demonstrating the highest interest.

<table>
<thead>
<tr>
<th>Product Category</th>
<th>0%</th>
<th>5%</th>
<th>10%</th>
<th>20%</th>
<th>50%</th>
<th>100% or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fashion Products</td>
<td>15%</td>
<td>34%</td>
<td>28%</td>
<td>15%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Food Products</td>
<td>6%</td>
<td>26%</td>
<td>25%</td>
<td>23%</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Beauty Products</td>
<td>13%</td>
<td>36%</td>
<td>27%</td>
<td>15%</td>
<td>6%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Most Chinese consumers are willing to pay between 5-20% extra for sustainable products.

**Conclusion 1:**
There is room for mass market brands to **incorporate sustainability** into their **Chinese business models** as the Chinese mass market has an **unpolarized perception on climate change** and the environment.

**Source:** Daxue Consulting Survey (2022), N = 1,000

**Conclusion 2:**
However, the few number of **environmental activists** in China suggests a **lower success rate** of brands who try to market **sustainability at premium**, as very few Chinese consumers are willing to pay double or more for eco-friendly products.
Hypothesis 4

In China’s journey to zero-carbon, the transition of the meat industry will be eluded for a longer time.
In the future of sustainability in China, the meat industry will not be as focused for transformation as other industries like energy and industrial

The main meat sources consumed in China are pork and chicken, which have significantly smaller environmental footprints than beef. Media and propaganda targeting China’s meat industry is minimal and not related to sustainability, but rather related to the prevention of chronic conditions. On the other hand, industries like the energy and industrial sectors account for over 78% of the global greenhouse gas emissions.

Although China has the highest meat consumption in the world due to its large population, per capita still remains low in comparison to the U.S., Argentina, and Australia.

Total emission from global livestock represents 14.5% of all manmade GHG emissions.

Source: FAO (2022), Our World in Data (2021)

Source: OECD-FAO (2021)
Our mission is to guide businesses to holistic growth in China

Through our market research and strategy consulting, we equip businesses with the knowledge and guidance to achieve growth in China and beyond
The values we embrace

Our clients’ goals are our goals
We see ourselves as an extension of the client’s business in China or their target country, hence, we advise them as if we were in their shoes and investing along with them.

Embrace change enthusiastically
Similar to how markets are constantly changing, our mindset is also always evolving. We value routine only when it helps us improve and we value change because it helps to keep pace with our time.

Intellectual humility gives clarity
Only through the lenses of humility can knowledge be seen clearly. At daxue consulting, we are humble toward science and the truth. We interpret data in a way that lets it speak for itself, even if contradicts our hypothesis.

Freedom enriches creativity & responsibility
Freedom to manage and envision her or his mission increases the sense of responsibility to that mission.

Knowledge is meant to be shared
While our projects team dives deep to provide catered research to clients, the media team shares insights publicly. At the same time, we foster a culture of sharing knowledge in our team, each individual works to increase their own knowledge and freely shares ideas each other.
Our network covers all of China, and beyond

- Three offices in China: in Shanghai, Beijing and Hong Kong
- Employing 40+ full-time consultants
- Full, complete, national coverage
- Efficient and reliable fieldwork execution across China
- Using our expertise to draw precise, reliable recommendations
- Key accounts from around the world
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An agile and data-driven approach towards solving complex research questions

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  We do not outsource

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  Interviews, cold calls, focus groups, surveys, and more

- **SOFTWARE AND TOOLS**
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  Data-driven and cross-checking from many angles

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  Consulting backed up by massive research

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  From market discovery to entry, we keep pace with market changes

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  We encourage frequent meetings and workshops with our clients

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- **CROSS-CULTURAL UNDERSTANDING**
  Mix of foreign-educated Chinese and China-educated foreigners
Our past and current clients

400+ clients with 600+ projects over the past 9 years
Our testimonials

Comments from our clients

“Thanks so much for your hard work over the last several months and the multitude of presentations that you have done to our stakeholders. I highly appreciate the quality of work and also the patience with which you have answered the questions.

Overall the work has been very well received and has been very educational for our teams in Singapore, New York and San Francisco. We will be using a lot of this information as we make critical investment decisions into China over the next several months.

Please do pass on our thanks to the entire Daxue team - hope you do take a moment with the entire team to celebrate the success and outcome of this project! Also, I would be happy for you to use my reference for any future clients.”

Managing Director @ Palmer Hargreaves

“Thank you so much for your and your team’s support regarding our China eCommerce project. The feasibility study was very well delivered and useful to give us insights about China market. As business evolves, we definitely need to keep abreast of the latest developments to cope with the rapid change of the market. In this sense, we will continue to need your support to our business growth.”

E-commerce Manager @ LIDL

“Thank you for your hard work over the last several months and the multitude of presentations that you have done to our stakeholders. I highly appreciate the quality of work and also the patience with which you have answered the questions.

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JAPAC Revenue Strategy Manager @ Twitter

“Thank you so much for your answer. I’ve been through the presentation and I’m very impressed by all the useful detailed information I’ve found. Thank you so much!”

Director Ecommerce Marketing EMEA @ Ubisoft
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Forbes
South China Morning Post

PATHEAS

Le Monde

JDN JOURNAL DE NET

Le Monde

GLOBAL TIMES

South China Morning Post

The Street

SOUTH CHINA MORNING POST

Le Monde

FREQUENT SPEAKERS ON CHINA-BUSINESS TOPICS

Lecturing at Peking University MBA.

Workshop on the China’s food imports

TV interviews on prime time television in Singapore

Daxue on Thoughtful China

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