

A research on the factors influencing Chinese consumers' choice of retail stores when purchasing grain products

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Abstract: Grain products are indispensable necessities in the daily life of Chinese consumers. They hold an important position in the diet structure and cultural inheritance, not only as an important source of nutrition but also as the embodiment of traditional Chinese diet culture. Grain consumption is different from general commodity consumption; it is associated with the life and health of residents, social stability, and the daily necessary consumption of consumers. Therefore, consumers are very concerned about choices when buying grain products. The grain market environment has undergone great changes due to economic development, leading to shifts in consumers' consumption concept of grain food. The current purchasing channels and purchasing methods can no longer meet the potential purchasing needs of consumers. With the promotion of urbanisation and modernisation, the retail industry continues to innovate, from traditional wet markets to supermarkets, convenience stores, and e-commerce platforms, forming a diversified retail environment. This diversified development not only enhances consumers' choice in the shopping process but also puts forward higher competition requirements for retailers. Therefore, studying the factors that Chinese consumers choose retail stores when buying grain products not only helps to understand the motivations behind consumer behaviour but also provides retailers with deeper market insight and provides strong support for the formulation of future market strategies.

Keywords: grain products, Chinese consumers, retail store, marketing strategy

1. Introduction

Grain foods, including cereals, legumes, and their highly processed or semi-finished products, play an important role in our lives. Grains are commonly consumed not only due to their ordinary commodity consumption but also associated with consumers' lives and health, and even affect the stability of society. China has a large population, and despite the constantly improving level of economic development, agriculture is still a solid pillar of its economic development. Therefore, the consumption of grain food is of vital significance to the stable and rapid development of China's political economy. China's total grain output in 2023 will reach 695.41 million tons, an increase of 8.88 million tons or 1.3 percent over 2022. By 2023, the total value of China's household terminal consumption of grain products will reach 1.471.1 billion yuan (USD 203 billion), up 2.67 percent from 2022. Among them, the total consumption of refined grain by residents was 909.1 billion yuan (USD 126 billion), and the market value of the grain industry was 562 billion yuan (USD 77.6 billion), up by -1.16% and 2.11% respectively. Per capita consumption expenditure on rations was 1,057 yuan (USD 146), up 0.15 percent year-on-year and 1.66 times that of 2010. According to statistics, grain consumption among urban residents in northern cities of China was 119.5 kg, higher than in the southern cities (110.9 kg). Among rural residents, grain consumption in the north was 163.1 kg, i.e., slightly higher than that in the south (161.1 kg). The reasons why people in the north like to eat multigrain vary. First, geographical and climatic conditions have an important impact on agricultural production in the north. Most of the northern region is rugged, comprising mostly mountainous, fertile land suitable for growing various multigrain crops, such as wheat, corn, soybeans, and many more. In contrast, the southern region is more suitable for paddy crops, such as rice. Hence, people in the northern region grow more cereals in agricultural production, rendering them to consume more cereals in their daily diet.

Secondly, people in the northern region have a high consumption habit of multigrain in history. The history and culture of China make the grain culture in the north different from that in the south. In ancient times, the northern region was affected by the cold climate all year round, and people needed more energy to maintain body temperature and perform physical work. Thus, multigrain crops have become the main

source of energy for people in the north. This eating habit has been passed down from generation to generation among the local people, forming the tradition of eating more multigrain in the northern region.

Thirdly, the nutritional value of multigrain crops is also one of the reasons why people in the north prefer them. Multigrain crops are rich in protein, dietary fibres, vitamins and minerals and have high nutritional value. In contrast, finely processed staple foods, such as white flour and white rice, have relatively few nutrients. People in the north generally believe that multigrain food can provide richer nutrition besides better meeting the needs of the body; hence, they are more inclined to choose multigrain as a staple food.

In addition, grain culture and taste preferences are also one of the reasons why people in the north prefer multigrain. Dishes in the northern region are usually based on pasta, such as dumplings, noodles and so on. The preparation of these pastas requires the use of flour, which is ground from miscellaneous grains. Therefore, the demand for pasta in the north prompts people to eat more cereals.

With the continuous progress of Chinese society, economic policy is also constantly adjusted, from the past seller's market to the buyer's market, with the policy of unified purchase and marketing gradually fading from the historical stage. Grain enterprises have gradually developed from the state-owned monopoly in the past to diversified sales channels. Especially after China acceded to the World Trade Organisation (WTO), a large number of foreign-funded enterprises have entered the Chinese market, making the sales channels of grain food more complicated and diversified. However, this has also brought much competitive pressure to China's traditional grain food, especially from the competition of imported products.

More than a decade ago, Chinese consumers gave priority to specialty stores when buying grain products. After 2011, with the rapid expansion of supermarkets in China and a large increase in the number of chain supermarkets and foreign brand supermarkets, consumers gradually turn to various supermarkets for the purchase of grain products. In recent years, with the development of the internet, the rise of e-commerce had a great impact on the traditional retail industry. Consumers are more inclined to buy from e-commerce platforms, such as Taobao, Jingdong, and other e-commerce platforms. They believe that there are a wide variety of grain products on e-commerce platforms, and they are inexpensive. However, most consumers still insist on buying from retail stores, and they believe that the quality of grain food is more important. In their view, physical retail stores are more secure. After all, buying in physical stores allows them to be intuitive besides experiencing tangible quality. A survey by 2022 Jiangmen Daily revealed that 60% of people said they would buy grain products in supermarkets, accounting for the vast majority. In contrast, 25% of consumers said that grain products are cheaper online, so they choose to purchase them online. Citizens have a relatively low awareness of grain specialty stores. Hence, only 5% of consumers will buy from grain specialty stores. Approximately 10% of consumers will buy from traditional markets, with the elderly comprising most of them. Therefore, this paper examines the factors why Chinese consumers choose retail stores when buying grain products from seven aspects: price factor (Desmaryani et al. 2024), quality and safety (Alef et al. 2024), service experience (Bansal & Kaur 2024), brand awareness (Erdem et al. 2002), personal disposable income (Gupta & Mukherjee 2024), health and nutritional value (Lai Jun, 2024), word-of-mouth (Hennig-Thurau et al. 2004) and reviews in order to provide deeper market insight for retail stores and provide strong support for the formulation of future market strategies.

2. Literature Review

As the grain food product retail industry develops, the purchasing behaviour of Chinese consumers has also changed. This is because Chinese consumers are experiencing huge changes in their lifestyles, which is affecting the way they buy grain. These factors include:

(1) Price: The price affects the choice of Chinese consumers when buying grain products from retail outlets. Whether consumers are more inclined to pursue affordable products or pay more attention to product quality is the question that the researcher wants to explore.

According to the data of the Beijing Municipal Development and Reform Commission, the wholesale price of japonica rice in Beijing in September 2023 was 2.52 yuan (USD 0.34 /catty), the retail price of farmers' market was 3.13 yuan (USD 0.43 /catty), and the retail price of supermarkets was 2.93 yuan (USD 0.40 /catty). The price is basically the same as in August. A slight increase compared to the same period in 2022. A consumer preference study shows that price and quality are the main factors influencing consumers' food choices, and these factors dominate both online and offline trade channels (Panasenko

et al. 2022)^[1]

(2) Quality and safety: Do Chinese consumers prefer grain products with good quality certification and safety standards when choosing retail stores. The researcher needs to investigate and study the key selection factors of consumers' purchases.

Madzorera et al. (2021)^[2] believed that in the years affected by the epidemic, grain production and grain quality have declined, and consumers are more concerned about the quality of grain in supermarkets. Grain food security and nutrition have been severely affected during the COVID-19 pandemic, especially in low and middle-income countries.

Ecological environment problems: China's grain production faces serious ecological and environmental challenges, such as agricultural non-point source pollution and soil heavy metal pollution.

(a) Climate change impacts, such as climate warming, led to the spread of pests and diseases, affecting crop yield and quality.

(b) Arable land resources decreased. The decrease in cultivated land resources is a serious problem in China, and the year-by-year data on the cultivated land decrease reflects the seriousness of the problem.

(c) International market dependence. China imports a large number of agricultural products, such as soybeans and corn, and is highly dependent on the international market.

(d) The rise of agricultural means of production prices. The sharp rise in the price of agricultural means of production has increased the cost of production and affected the income of grain producers.

Compared to previous periods, grain prices have increased across the board during the outbreak, including beans, flour, and other foods. Grain security and dietary diversity have had a major impact, and attention has been paid to grain product safety (Sridhar et al. 2024)^[3].

(3) Service experience: The researcher needs to study whether the after-sales service and shopping environment provided by retailers will affect Chinese consumers' choice of retail stores when buying grain.

According to the results of structural equation models, personalisation, experience, and relationships affect consumer satisfaction (Santos et al. 2024)^[4]. Young people value personalisation more when choosing a place to shop, while older people value service experience and interpersonal relationships more. Personalised service is a kind of targeted service mode, which is realised according to the user's settings, collects, organises and classifies resources according to various channels, and provides and recommends relevant information to users to meet the needs of users. On the whole, personalised service breaks the traditional passive service model, allows full use of various resource advantages, and actively carries out a full range of services to meet the personalised needs of users. The concept of value service is an attitude reflected in customer service, which can be transformed into the interests or values that customers can feel personally. Usually, customers can feel that the goods they buy are maximised in value and that the money they use to buy them is worth it. Arnold et al. (2005)^[5] suggested that customers are exposed to pleasurable experiences that generate higher levels of emotion than mere satisfaction assessments. This feeling may develop into a long-term loyal follower of retail stores. Customer satisfaction is considered the key to true customer loyalty and loyalty driving profits.

(4) Brand awareness: Brakus et al. (2009)^[6] believed that brand measurement is different, and consumers will consider brand evaluation, brand engagement, brand attachment, customer satisfaction and brand personality. In addition, brand experience directly or indirectly affects consumer satisfaction and loyalty through brand personality association.

When consumers buy grain, what is the influence of brands on their choice of retail stores? Are consumers more likely to buy grain from well-known brands, or are they more attracted to the brand image of a retail store? The exploration of these factors will help improve the retail industry. The examples of the famous grain brands are as follows: Ningxia Saibei snow brand flour 5 kg – the supermarket selling price is 46 yuan (USD 6.36), while the online purchase price is 44 RMB (USD 6); Haoshuai brand rice – retail price of 10 kg in the supermarket is 61.9 RMB (USD 8.56), and the online purchase price of 10 kg is 58 RMB (USD 8.02).

(5) Increase in personal disposable income: Xing et al (2022)^[7] demonstrated that high-income and educated groups pay more attention to the quality of goods and like to buy innovative products. Meanwhile, consumers in second-tier cities are more concerned about the practicality and cost performance of products.

In recent years, with the improvement of China's economic level, the income of Chinese residents has also increased. For example, in the past, when consumers' wages were low, they purchased rice and other grain products from wet markets and grain specialty stores. There were few product options and prices were relatively cheap. Now, if consumers have sufficient budgets, they can choose to purchase high-end grain products imported from various countries.

(6) Increased attention to health and nutritional value: Chinese consumers have paid more attention to healthcare in recent years. With the improvement of consumer health awareness, attention to the nutritional value and health effects of grain products has become more and more important, which will affect consumer purchasing decisions. People might choose to buy saline-resistant organic rice, which is mostly available in modern retail stores and rarely in wet markets.

With improved living standards, people's demands for staple foods have been upgraded from "simply eat enough" to "not only eat enough but also eat well." Hence, many emerging rice brands, such as germ rice and brown rice, are particularly eminent in the development trend. They entice the public with their respective functional characteristics, and jointly drive the consumption of staple food rice online to further increase. For example, brown rice has become a light-grain choice for consumers because of its high fibre, low fat, and high satiety properties. Compared to white rice, germ rice retains the embryo rich in fat, protein, and vitamins, which balance the nutritional value and taste, and has been welcomed by consumers in recent years.

Baş et al. (2024)^[8] believed that increasing consumer knowledge and awareness of organic grains, encouraging social consumption of organic grains, and making organic grains accessible and affordable in the grain market can influence attitudes towards these products.

(7) Word-of-mouth and reviews: Consumers may learn about other consumers' purchasing experiences through word-of-mouth, reviews, social media, and other channels, and such information will affect their decision on the purchasing channel of grain products.

People are more likely to buy from word-of-mouth retailers. Roy et al. (2019)^[9] revealed that the relationship between product sales and word-of-mouth is the most important factor influencing their purchase decisions, and consumers generally prefer products with consistent word-of-mouth, so retail stores often tend to offer reviewers coupon codes or other rewards (i.e., Mickey Mouse keychain, pen holder, etc.). Some may offer gifts, such as mobile phone recharge cards, to pursue five-star (highly praised by all reviewers) reviews.

The emergence of online shopping platforms has affected China's retail store environment and consumer behaviour, particularly how consumers respond. This complex situation is the main focus of this article. Few studies have been conducted to explore the shopping behaviour of Chinese consumers when purchasing grain products. This research project seeks to determine the factors that most influence consumers to choose retail stores when buying grain products and explore why consumers still choose them (continue buying grain products in retail stores) when they have the opportunity to purchase from online shopping platforms.

3. Retail Formats in China — Ningxia Province as an example

China's grain product retail channels can be divided into three categories: supermarkets, traditional markets, and grain specialty stores. Different channels cater to different strata of Chinese people in different periods. Supermarkets mainly comprise chains and ordinary supermarkets. In recent years, Chinese youth generally like to go to chain supermarkets to buy grain products. The traditional market is divided into wet and farmers' markets. Older consumers like to buy their groceries at farmers' markets. Grain specialty stores were more common from 2000 to 2010. However, they have become fewer in recent years because consumers can buy grain products online. Online shopping platforms have a great impact on these small-scale grain stores. At present, the purchase channels of grain products in Ningxia Province are mainly supermarkets and traditional markets. According to the data in 2020 released by the government of Ningxia Province, the supermarket brands in Ningxia are mainly local brands, among which Yinchuan Xinhua Department Store chain supermarket is the representative supermarket in Ningxia, with 59 stores. Other larger supermarkets are Ruihe Supermarket and China Resources Vanguard Supermarket. Ningxia Province is relatively remote, with low economic development, a small regional area, and inadequate personnel density. Hence, some international supermarkets are reluctant to go there; there are few international supermarkets, and Metro is the only warehouse supermarket in the province.

Table 1: Traditional morning market and supermarket sales difference

Traditional morning market and supermarket sales difference	
The traditional Chinese market generally refers to the morning market, generally from 7 am to 11 am. Usually sells a variety of daily necessities, including but not limited to:	As a typical representative of retail formats, supermarkets usually sell a wide range of commodities, including but not limited to the following main categories:
Rice and noodle food: As a necessity in People's Daily life, the demand for rice and noodle food is large, and customers who buy rice and noodle in the morning market can buy it on demand, and the quality and type are visible.	Food and beverages: Supermarkets usually sell a variety of food and beverages, including fresh fruits and vegetables, meat, cooked foods, breads, milk, eggs, groceries, snacks, etc.
Breakfast food: such as steamed buns, steamed buns, pancakes and other traditional breakfast food, these are the most important meal of the day, so it is widely welcomed.	Non-food goods: The supermarket also offers a variety of non-food goods, such as cleaning supplies, cosmetics, health products, personal care products, stationery, toys, etc.
Fresh vegetables and fruits: Fresh vegetables and fruits attract many consumers due to their affordable prices and good quality.	Household goods: The household goods department of the supermarket may include furniture, kitchen utensils, cutlery, bathroom goods, cleaning supplies, etc.
Tea and coffee: As drinks in People's Daily life, tea and caffeine are favoured by consumers for their affordable prices and good quality	Electronic products and home appliances: Some large supermarkets may include electronic products and home appliances, such as TVs, stereos, computers, mobile phones, printers, etc.
Handmade goods: such as hand-woven baskets, hand-made toys, etc., these goods attract consumers because of their characteristics.	Sports and outdoor goods: The sports and outdoor goods department of the supermarket may include sports equipment, fitness equipment, outdoor furniture, barbecue utensils, etc.
the morning market may also sell trinkets, electronic accessories, grain, gadgets, clothing and women's crossbody bags	Personal Care and beauty products: A supermarket's personal care and beauty products department may include shampoos, body washes, cosmetics, etc.
	Other goods and services: In addition to the above goods and services, the supermarket may also provide other goods and services, such as lottery services, Courier services, financial services, etc

Table 1 displays the sales differences between traditional morning markets and supermarkets in Ningxia Province. The morning market is more flexible, with more small commodities, and it is more convenient to buy grain, while the supermarket has a complete variety of commodities, and the quality is guaranteed compared to the traditional market.

In order to explore the choice channels and factors behind consumers' purchase of grain, the researcher needs to study the development mode of online shopping and offline retail stores in recent years.

Li Mingtao, chief e-commerce expert at the China International E-commerce Center, said in an interview (2024) that since online shopping began in China, it has gone through four stages of development. The period from 1999 to 2001 is regarded as the embryonic stage of the formation of e-commerce in China, especially online retail. Approximately 8,848 websites as the representative disappeared with the bursting of the internet bubble because the logistics and payment schemes, including online security mechanisms, were not perfect at that time. After the establishment of Taobao in 2003, the whole To C, i.e., the retail part of the market, became more active. Hence, 2003 to 2008 were the initial stage of retail e-commerce. Then, from 2008 to 2020, after the era of smartphones, the technology embarked on e-commerce, and the shopping carrier was fully migrated to the mobile terminal. The e-commerce platform continued to flourish in 2020. From 2020 to the present, content e-commerce, video e-commerce, or social e-commerce are comprehensively based on video to change the original form of graphics and create a new shopping experience, which is also a new stage of development.

With the development of China's social economy and the rise of e-commerce, the business of grain physical stores faces more challenges. Today, the impact of e-commerce on the real economy has

experienced four waves. The first wave of impact is that e-commerce eliminates the information gap on prices so that consumers can understand the real situation of grain commodity prices. This greatly reduces the profit margin of physical stores while also facing high rent costs. The second impact involves the emergence of a seven-day no-reason return policy, which gave consumers more peace of mind after shopping, and grain retailers often could not easily meet such after-sale demand. The third wave of impact is to attract consumers' desire to buy goods through live streaming, which further squeezes the consumer demand for grain retail stores. Today, the fourth wave is the popularity of the refund-only policy, making more grain retail owners choose to close online stores and focus on offline entities. Unfortunately, the business of physical stores is facing greater difficulties, such as being unable to meet the needs of consumers to return goods and guarantees. Therefore, it is important to examine why consumers still choose retail stores to buy grain products under the current development situation and what are the reasons for insisting on choosing offline retail stores.

4. Methodology

This paper mainly adopts the questionnaire survey method, taking Ningxia as an example to carry out the questionnaire survey, and collect 115 valid questionnaires online. Initially, participants who were invited to fill out the questionnaire came from the researchers' social networks, including classmates, colleagues, friends, neighbours, and relatives. Later respondents came from all over Ningxia, with a wide range of occupations and ages. The study was conducted in Ningxia from January to May 2024. The researchers sent out hundreds of questionnaires, and eventually collected 115 valid questionnaires based on the content of the questionnaires, which were filled out in an informal and relaxed manner, encouraging participants to express their opinions spontaneously.

A total of 115 consumers in Ningxia participated in the survey. Since there are many provinces in China, it is difficult to conduct the survey for each province. Hence, the researcher chose the region as the representative of data publication and collection. However, due to the geographical limitations of the data collection, the participants could not be considered representative of a specific population, so the resulting discussions could not utilise any statistical methods or make assumptions about the impact of their population on others.

The researcher has chosen the method of data collection for the survey, which was conducted via a structured questionnaire. This is because the survey method is the most commonly used primary data collection method in marketing research. Therefore, the design of the questionnaire in this study comprises three parts: Part A focuses on basic information, aiming to understand the basic information of the respondents; Part B is an open question and answer session, mainly to understand the respondents' thoughts on grain product purchase; and Part C is the multiple choice questions of the satisfaction scale, aiming to understand the respondents' satisfaction with the choices of 45 questions in 7 factors.

5. Results and Discussion

Table 2: Reasons to buy grain products at retail stores

Reason	Percent %
Easier to handle returns and exchanges	15%
Field communication needs	11%
time-saving	10%
Shopping pleasure	9%
Samples can be felt in the store	9%
More intuitive understanding of quality	9%
Direct selection of commodity form	7%
Spot goods	5%
Support the local economy	5%
Don't worry about information asymmetry	4%
Avoid long logistics	4%
grain security	3%
Feel more relieved	3%
discount	2%
uncertainty	2%
Reduce online shopping misunderstandings	2%

Table 2 reveals that the most important reason for respondents to choose grain retail stores is that it is easier to handle returns and exchanges in retail stores, and the second reason is that respondents can choose according to their needs on the spot, which saves time compared to online shopping.

Table 3: Reliability analysis

Commodity price	Number of terms	Sample capacity	Cronbach α coefficient
Quality and safety	5	115	0.812
Service experience	8	115	0.884
Brand awareness	6	115	0.866
Disposable personal income	7	115	0.878
Health and nutritional values	3	115	0.738
Word-of-mouth and comment	6	115	0.862
Commodity price	10	115	0.910
Ensemble	45	115	0.978

This paper used SPSS 29.0 to test the reliability of 115 valid questionnaires. The analysis results are shown in Table 3: Cronbach's α coefficient of commodity price is greater than 0.9; Cronbach's α coefficient of quality and safety, service experience, brand awareness, personal disposable income, and word-of-mouth evaluation, 6 were greater than 0.8; Health and nutrition value Cronbach's α coefficient is greater than 0.73. This indicates that the scale designed in this paper has a very high internal consistency in the questionnaire survey, and the measurement items of each variable have a good internal consistency and reliability, and the measurement error is small, which meets the reliability requirements.

Table 4: Validity analysis

Variable	Number of KMO sampling suitability quantities	Bartlett Sphelicity test		
		Approximate chi square	Approximate chi square	Approximate chi square
Commodity price	0.796	177.557	10	0
Quality and safety	0.914	380.845	28	0
Service experience	0.863	286.003	15	0
Brand awareness	0.901	333.581	21	0
Disposable personal income	0.751	78.197	3	0
Health and nutritional values	0.879	267.562	15	0
Word-of-mouth and comment	0.926	552.101	45	0
Ensemble	0.929	3970.261	990	0

The test results are shown in Table 4. KMO and Bartlett tests were used to verify the validity. The KMO values of the eight parts of commodity price, quality and safety, service experience, brand awareness, personal disposable income, health and nutrition value, word of mouth and reviews, and total volume table were shown respectively: 0.796, 0.914, 0.863, 0.901, 0.751, 0.879, 0.926, 0.929, were greater than 0.75. Approximate chi square of 7 factors of the significance scale shows 0.000, which is less than 0.05, indicating that each variable item has good validity and the measured error value is small, supporting factor analysis and meeting the validity requirements.

Due to the large amount of data, researchers chose the first five factors with high mean scores in Table 5 as representatives for analysis. When the respondents chose retail stores to buy grain products, the average score of buying grain products based on word of mouth was the highest, with an average score of 3.31 points. The results show that Chinese consumers will mainly choose to buy from reputable retail stores.

The average score of the price factor and the average score of liking to buy grain recommended by friends are both 3.30, proving that Chinese consumers like to buy grain products with affordable and favourable prices in retail stores besides buying grain products recommended by friends.

Table 5: Mean analysis

	Mean	Standard deviations
You will refer to other consumer reviews and ratings to make purchase decisions	3.31	0.892
You prefer to choose low-price grain	3.30	0.837
You will buy grain at a retail store suggested by your friend	3.30	0.805
You only like to buy products with high quality certification and safety standards	3.29	0.758
You think the after-sales service and shopping environment provided by the retail stores reflect their attention and attention to their customers	3.29	0.846
When buying grain products, you will take the initiative to publish your own purchase experience and comments on the retail stores	3.29	0.906
You think the after-sales service and shopping environment provided by retail stores reflect their brand image	3.28	0.801
You consider product safety standards when buying grain	3.27	0.862

The grain safety average of 3.29 signifies that they believe grain safety is related to their health and that they should carefully choose qualified grain products.

Table 6: Factor analysis

The component matrix after the rotation ^a			
	Ingredient		
	1 Brand value orientation	2 Reputation and price	3 Quality and Service
You prefer to buy grain products provided by retail stores with well-known brand image	0.804		
You are more willing to buy unknown but reliable grain brands	0.770		
You will buy grain at a retail store suggested by your friend	0.685		
You think that the products with high quality certification and safety standards will have a great impact on your purchase decision	0.637		
Personal disposable income- -As your personal disposable income increases, you look more on the types and grades of retail stores when buying grain products	0.606		
You care more about the price of grain products than other products		0.833	
You think that word-of-mouth and comment will have a great impact on the retail stores where you choose to buy grain products		0.730	
You will buy grain at the retail store suggested by your family		0.716	
Brand awareness- -when you buy grain products, you will consider the brand awareness of the product itself		0.692	
You prefer to choose low-price grain			0.776
Quality and safety- -When you buy grain products, you think that product quality is your primary consideration			0.691
You consider product safety standards when buying grain			0.668
Service experience- -When you choose a retail store, you will consider its after-sales service and shopping environment			0.651
Eigenvalues	6.637	1.194	0.864
Percent of variance	51.050	9.183	6.636
Cumulative variance	23.911	46.399	66.869
Alpha Cronbach	0.815	0.823	0.815
Factor means	3.232	3.14	3.22

The average score of retail store service and grain safety is 3.29, which can prove that consumers choose to buy in retail stores because grain safety can be guaranteed, and quality problems in retail stores can be dealt with on-site. Chinese scholar Cui et al. (2022)^[10] found that the excessive content of arsenic, chromium and cadmium in rice will cause greater non-carcinogenic and carcinogenic health risks to residents compared to other substances; hence, consumers should pay attention to quality and safety when purchasing grain products.

Table 6 shows the main factor, the brand value orientation of the retail store, is influenced by two

criteria, with a minimum factor value of 3.232, a characteristic value of 6.637, and a percentage variance of 51.05. This can be explained by the fact that consumers attach great importance to the type and grade of retail stores when buying grain. Consumers prefer to buy well-known cereal brands at well-known retail stores and are also willing to buy at retail stores recommended by friends. As consumers move up the income scale, more and more consumers are willing to make purchases at well-known retail stores. Becerra and Badrinarayanan (2013)^[11] demonstrated that trust in branded retail stores affects consumers' purchase intention and positive recommendation. Brand awareness affects consumers' positive and negative recommendations of a brand.

The second factor, reputation and price, is influenced by two criteria, with a minimum factor value of 3.14, an eigenvalue of 1.194, and a percentage variance of 9.183. This can be explained by the fact that consumers pay more attention to reputation and price when purchasing grain products. They are willing to buy cost-effective grain products in retail stores with good reputations, and they are more concerned about whether the word-of-mouth of grain brands is recognised by more people when purchasing. According to Hennig-Thurau et al. (2004)^[12], the internet enables consumers to share their opinions and experiences about goods and retail stores with many other consumers. Thus, driving product sales and increasing consumers' purchase motivation in retail stores.

The third factor is quality and service. The minimum factor value is 3.22, the eigenvalue is 0.864, and the percentage of variance is 6.636. This can be explained by the fact that consumers are highly concerned about the quality of grain products, and they hope to buy high-quality and inexpensive grain products. Moreover, they have certain requirements for the after-sales service of retail stores; they believe that the quality of grain products purchased in retail stores with good service is guaranteed. An empirical study by Vidal et al. (2022)^[13] also proved that consumers are highly concerned about the quality and safety of offline retail stores, and it is necessary to strictly control the grain in retail stores to prevent health risks.

6. Conclusions

The results of the preliminary study provide a basis for determining the factors with the greatest impact on consumers when choosing retail outlets to purchase grain products. The results of the main survey confirm and show that consumers still prefer to buy grain products from retail stores. Despite the emergence of online shopping platforms, retail stores are still the preferred purchasing place for consumers to buy grain products.

Studies argue that retail stores are easily replaced by online platforms, pushing customers to online platforms, which provide a one-stop shopping venue and a more pleasant environment for shoppers (Balasubramanian and Sridhar 1998). However, according to the results of this study, consumers did not totally forgo the offline retail store market to purchase fresh grain products due to some pull factors, such as the guaranteed quality of offline retail stores, regular discounts, more convenient after-sales, and willingness to buy from reputable brand retail stores. These factors lead to consumers still choosing to buy grain products from offline retail stores.

Although the variety of offline retail stores is not as diverse as online platforms, the price is not as appealing as online shopping platforms. Nevertheless, offline retail stores do create an environment where personal relationships flourish, communities are closer, and even contribute to local economic development to some extent, solving the problem of employment for some residents. Shoppers go to offline retail stores not only to buy goods but also to enjoy the participation of personally selecting grain. On the contrary, the advantage of supermarkets and traditional morning markets is that it is convenient for customers to shop and avoid waiting. Meanwhile, online platform stores may struggle to be competitive in providing customers with a sense of personal engagement.

Retail stores and online platforms can influence consumers' buying behaviour to change their choices. For example, Chinese consumers value price and quality when buying grain products. If offline retailers are to address these issues, they need intervention from the government and local grain bureaus. In order to avoid the high price of grain as a daily necessity, the activities that need to be carried out include: (1) price control by the government to ensure that offline retail stores will not arbitrarily raise prices for some artificial reasons, (2) ensure adequate grain production and sufficient reserves to meet the daily purchase needs of residents, (3) require dealers to set reasonable prices, (4) regular and mandatory quality testing of retail stores to ensure that consumers will not buy expired or quality-compromised grain products, and (5) retail stores to strengthen service security so that customers are at ease while shopping and do not worry about after-sales.

Since Chinese consumers prefer to buy grain products from retail stores with good reputations, the stores must emphasise the stability of grain prices and quality assurance. Although the grain quality prices in specialty stores and supermarkets can be seen intuitively, the quality of grain products should be strictly controlled and the diversification of grain products should be increased to meet the needs of different groups of people. Therefore, retailers should improve their competitive advantages by adjusting prices, improving service experience and enriching product types, minimising the impact of the network platform, and ensuring that consumers are still willing to choose retail stores to buy grain products in the future, and the retail industry can develop stably.

This study has some shortcomings due to its own research ability and knowledge level. It might not be accurate enough to interpret the factors that consumers choose to buy grain products at retail points so that future research can incorporate the following aspects:

Expanding the scope of the study: Future studies should be extended to cover a larger geographical scope and sample size to obtain more generalisable conclusions. This helps to understand the differences in consumer behaviour across regions and cultures.

Consumer psychology and social factors: An in-depth study of the influence of consumer psychological factors (motivation, attitudes, and perceived risks) and social factors (family, social circle, and cultural background) on retail store selection.

Policy and market environment changes: The impacts of different policies grain safety policies, tax policies, etc.) and market environment change (economic fluctuations, epidemic impact, etc.) on consumers' choice of retail stores should be assessed, and adaptive suggestions put forward.

Through the above suggestions, it is expected that future research can more comprehensively and deeply understand the behaviour of consumers who choose retail stores to buy grain products and provide more valuable references for retailers and policymakers.

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