**Critical Success Factors Study for Taiwan Bakery Shops**

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Abstract

Bakery products are a must-have food for many people every day. According to the survey, the annual global bakery market exceeds 300 billion US dollars, thus, it is a market with high demand and fierce competition. How to stand out in a highly competitive environment is a business issue for every bakery shop. Whether it is a chain bakery shop or an independent bakery shop, it must face strict selection and screening of customers. The decision of which store to buy for customers may include many factors such as product, location, interior decoration, price, service, advertisement, etc. Each factor can be subdivided into more detailed items. Therefore, how to focus on the most important factor for customers to increase customers' willingness to buy and directly improve sales performance is the only way for bakery shops to win the competition. In order to solve such problems, this research uses the Delphi method to conduct expert questionnaire surveys. From the four aspects of product, sales, store design and service methods, three rounds of questionnaire surveys are conducted on baking industry experts. The results of the research show that the "taste of bakery products" and "appearance (style, size, color) of bakery products" on the product side, the "brightness of the physical storefront" on the store design and the "sales attitude of the service staff" and "whether to provide accumulated reward points", are considered by experts to be the most important, that is, the most critical success factors for bakery shops.

Keywords: bakery shop, critical success factors, Delphi method, expert survey

**I. Introduction**

Eating is a necessary daily activity for everyone. Apart from various restaurants and fast food stores, the most frequently visited place is the bakery shop. In addition to selling various birthday cakes, it also provides a variety of desserts and breads. Therefore, it is a place for many office workers to quickly solve breakfast and lunch. Because the market has a large demand for bakery products, bakery shops of various brands can be seen everywhere in the streets and alleys. The resulting problem is how to stand out and succeed in business under high competition. Some bakery shops may want to use baking technology to create differences in baked products, or develop special product formulas to make baked products unique, and some change the shape of baked products in the hope of creating differentiation to attract customers. On the other hand, the bakery industry will also choose to open bakery shops in places with a lot of people, so the location may also be one of the factors for business success . In addition, some business operators may think that publicity is the key to success, so they set up a large budget for advertising in order to attract customers. Providing considerate services may also attract more customers to come to consume through the word-of-mouth effect. The above-mentioned operating methods of the bakery shop are just a few examples. Among all these business strategies and methods, which are the key factors for the success of the bakery shop operation are the topics to be explored in this study. Discovering the key factors for business success will allow the bakery to invest limited resources in key business factors and improve the operating performance of the bakery. In order to solve such problems, this study adopts the modified Delphi method expert questionnaire survey. First, experts’ opinions are collected to form the questionnaires, including the main components and detailed items of the questionnaire, and then three rounds of expert questionnaires are conducted. In the survey, the questions that did not reach a consensus in the previous round will be made into the next round of questionnaires, and the average and standard deviation of the expert opinions of the previous round will be added to the questionnaire to provide reference for expert revision opinions. Each round allowed the experts to add new question items to improve the completeness of the questionnaire. The expert questionnaire is only carried out to the third round, and even if there are still questions in the third round and no consensus has been reached, the entire expert questionnaire survey will stop.

**II. Literature review**

This section discusses the related literature. Misran et al. (2021) explored the sustainable management factors of traditional family bakeries, and the research used ethnographic technique with seven days of continuous observation, and finally a narrative method to illustrate the research findings, the results show that five key factors can affect the sustainable operation of the bakery, including products, equipment, materials, customers and knowledge transfer. Martínez-Monzó et al. (2013) identified fundamental trends in bread, baking and pastry innovations related to health, happiness and convenience requirements. The authors analyzed how culinary trends affect innovations in bread and similar products, and pointed out that top chefs consider bread and bakery not only as an accompaniment to their restaurant dishes, but also as the basis material for their innovative products. Charoenkool and Tengpongsathon (2018) used the Means-End Chain technique to study the main factors that affect customers' choice of bakery restaurants in Bangkok, Thailand, the results show that bakery shops should focus on convenience and atmosphere, provide a wide space for customers to have dinner, provide delicious food and small gifts can be attract more customers. Kim and Hwang (2020) analyze the business strategies of retail bakeries in China, including Paris Baguette, Paul Bakery and local competitors. The study uses the annual statistical report of China's food industry and uses the case analysis method for research. The results show that Paris Baguette applied the localization strategy to launch products that meet the tastes of Chinese customers, and successfully took root in China. On the contrary, Paul Bakery adopts a product standardization strategy and launches products that follow the French taste, but it fails sadly in the Chinese market. Ratinger et al. (2015) explored the issue of sustainable consumption of bakery products, used online questionnaires to collect household waste of bakery products, and used focus groups and personal interviews to obtain all research data. It turned out that the waste of bakery products was lower than the original forecast, and the importance of price was lower than the general belief. Freshness is the most critical factor for customers to buy products such as bread. Nindiani et al. (2018) explored the customer satisfaction of bakery products and services, using Importance-Performance Analysis (Importance-Performance Analysis), with a sample size of 127 people. The results show that bakeries most need to emphasize the taste index of product quality and the courtesy index of service quality. Kiumarsi et al. (2014) studied the business strategies of small and medium-sized bakeries in Malaysia. The results showed that small and medium-sized bakeries lack structured business strategies. They need to enhance product packaging, product value-added, and strengthen advertising strategies. At the same time, they must also increase sales points, distributors and offer higher sales incentives. Prawatlertudom (2018) explored the decision-making factors that affect customers' purchase of bakery products, and found that advertising and storefront physical experience are the two main factors that affect customer patronage. Raut (2018) surveyed the general situation of the baking business in India through interviews and field investigations, and found that although the baking industry is a traditional industry, there are still many customers. Boonsansaard (2016) Discussed consumers' attitudes and consumer behaviors towards healthy and healthy bakery in Bangkok, Thailand, so as to find out three market segments of consumers of healthy and healthy bakery products, and identify the key success factors that affect consumers' purchase of healthy and healthy bakery products.

**III. Research methods**

This study uses the Delphi method to conduct expert questionnaire surveys. The Delphi method was developed by the Rand Corporation of the United States in 1948 . Dalkey and Helmer first published the Delphi method in academic journals in 1963 (Dalkey and Helmer, 1963); in 1964, Gordon and Helmer published a research report applying the Delphi method to fields other than the military (Gordon and Helmer, 1964), since then, enterprises, governments and medical industries have successively applied Delphi method to decision-making problems of various affairs.

The expert identification of Delphi method is based on "a more complete and in-depth understanding of the research topic than ordinary people". Therefore, the following methods can be selected: (1) professionals in the problem field, (2) those with relevant work experience, or be a member of (3) professional bodies (Holden and Wedman, 1993). Delbecg et al. (1975) believed that the experts of Delphi method, if the homogeneity is high, need 15 to 30 people; if the heterogeneity is high, only 5 to 10 people are needed (Delbecg et al., 1975). Dalkey (1969) believed that as long as the number of experts in the Delphi method exceeds 13, the reliability will be higher than 80% (Dalkey, 1969). According to the above-mentioned expert selection principles, this study invited 15 experts with experience in bakery shop management, a total of 15 people from hotels, restaurants, bakeries, listed food companies, to answer the Delphi method questionnaire, list of experts and background as shown in Table 1.

Table 1 List of Experts for Delphi Questionnaire

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Company type | Position | Seniority (year) |
| 1 | Chocolate shop | Manager | 15 |
| 2 | Pastry shop | Manager | 10 |
| 3 | Listed food company | Director | 10 |
| 4 | Bakery shop | Director | 10 |
| 5 | Hotel | Manager | 20 |
| 6 | Hotel | Assistant manager | 10 |
| 7 | Hotel | Manager | 10 |
| 8 | Hotel | General manager | 15 |
| 9 | Restaurant | Manager | 5 |
| 10 | Pastry shop | Manager | 20 |
| 11 | Pastry shop | Director | 5 |
| 12 | Hotel | Manager | 15 |
| 13 | Hotel | Director | 1 0 |
| 14 | Listed food company | Manager | 1 5 |
| 15 | Listed food company | Director | 1 0 |

In this study, the content of the questionnaire was designed using the modified Delphi method, that is, the questionnaire questions are based on related research on the success of bakery shops from past domestic and foreign literature, and four main aspects were sorted out as the main components of the questionnaire, including products, store design, sales and service methods. The questions of each facet, that is, the key success factors of the bakery store that this study hopes to find out, also refer to the practices that have been mentioned in the existing literature.

The questionnaire survey of this study is divided into four aspects, namely product, sales, store design and service method. There are 10 questions in each facet , and there are 3 "Others" below the questions, which are used by experts to add new questions. The entire expert questionnaire is shown in Table 2 .

Table 2 Delphi expert questionnaire for this study

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | least most | | | | |
| No. | Dimensions and items | | 1 | 2 | 3 | 4 | 5 |
| **Product** | | |  |  |  |  |  |
| 1 | Taste of bakery products | |  |  |  |  |  |
| 2 | Appearance of the baked product (style, size, color) | |  |  |  |  |  |
| 3 | Freshness of bakery products | |  |  |  |  |  |
| 4 | Whether bakery products are healthy (high fiber, low sugar) | |  |  |  |  |  |
| 5 | Are there special ingredients added to baked products? (Omega-3 , Calcium) | |  |  |  |  |  |
| 6 | The price of bakery products is high and low | |  |  |  |  |  |
| 7 | How baked goods are packaged | |  |  |  |  |  |
| 8 | Are baked products made by well-known chefs? | |  |  |  |  |  |
| 9 | Do bakery products emphasize environmental protection? | |  |  |  |  |  |
| 10 | Can bakery products be customized? | |  |  |  |  |  |
| 11 | Other: | |  |  |  |  |  |
| 12 | Other: | |  |  |  |  |  |
| 13 | Other: | |  |  |  |  |  |
| **Sales** | | |  |  |  |  |  |
| 1 | Does bakery products have brand awareness? | |  |  |  |  |  |
| 2 | Are bakery products commercially advertised? | |  |  |  |  |  |
| 3 | Are bakery products easily available? | |  |  |  |  |  |
| 4 | Are bakery products sold online | |  |  |  |  |  |
| 5 | Whether bakery products are sold in physical stores | |  |  |  |  |  |
| 6 | Whether the bakery product is sold with other products (coffee, drinks) | |  |  |  |  |  |
| 7 | Does the bakery product have a well-known spokesperson? | |  |  |  |  |  |
| 8 | Promotions for bakery products | |  |  |  |  |  |
| 9 | Whether bakery products can be used in or taken away | |  |  |  |  |  |
| 1 0 | Are there bakery products available for tasting? | |  |  |  |  |  |
| 11 | Other: | |  |  |  |  |  |
| 12 | Other: | |  |  |  |  |  |
| 13 | Other: | |  |  |  |  |  |
| **Store design** | | |  |  |  |  |  |
| 1 | Is the signboard design of the physical store attractive? | |  |  |  |  |  |
| 2 | The size of the physical storefront | |  |  |  |  |  |
| 3 | display cabinet placement in physical stores | |  |  |  |  |  |
| 4 | Purchase flow design for physical stores | |  |  |  |  |  |
| 5 | The brightness of the physical storefront | |  |  |  |  |  |
| 6 | physical store location | |  |  |  |  |  |
| 7 | Number of physical stores | |  |  |  |  |  |
| 8 | Does the physical store have a chain system? | |  |  |  |  |  |
| 9 | Does the physical store provide parking | |  |  |  |  |  |
| 10 | Does the physical store provide in-house services? | |  |  |  |  |  |
| 11 | Other: | |  |  |  |  |  |
| 12 | Other: | |  |  |  |  |  |
| 13 | Other: | |  |  |  |  |  |
| **Service method** | | |  |  |  |  |  |
| 1 | Is the sales attitude of the service staff friendly? | |  |  |  |  |  |
| 2 | Is the number of service personnel sufficient | |  |  |  |  |  |
| 3 | Are service personnel wearing uniforms? | |  |  |  |  |  |
| 4 | Is there a credit card payment | |  |  |  |  |  |
| 5 | Is there mobile payment available? | |  |  |  |  |  |
| 6 | Is there any virtual currency payment | |  |  |  |  |  |
| 7 | Is there any accumulative points provided? | |  |  |  |  |  |
| 8 | Is there a mass order | |  |  |  |  |  |
| 9 | Do you offer home delivery | |  |  |  |  |  |
| 10 | Whether to provide online ordering | |  |  |  |  |  |
| 11 | Other: | |  |  |  |  |  |
| 12 | Other: | |  |  |  |  |  |
| 13 | Other: | |  |  |  |  |  |

In this study, the importance of each facet question is judged, divided into five levels from 1 to 5, and 1 to 5 points are given respectively. The higher the score, the more important, and the lower the score, the less important. The consistency of expert opinions is measured by using Holden and Wedman 's standard (Holden and Wedman, 1993). When the quartile deviation (QD) is less than or equal to 0.6, it means that the expert opinions are highly consistent; if the quartile deviation is greater than 0.6 and less than 1, it means that the expert opinions are moderately consistent; when the quartile deviation is greater than 1, it means that the expert opinions are inconsistent.

**4. Questionnaire analysis**

This section analyzes and illustrates the results of the first, second and third round questionnaires.

**( 1 ) The first round of questionnaire survey**

The results of the first round questionnaire are shown in Table 3. After the first round of questionnaire survey was collected, expert’s opinions were solicited according to question’s importance, and the quartile deviation of expert opinions was analyzed, which was used as the basis for judging the consistency of expert opinions. The results showed that: (1) product dimension: consensus was reached on the importance of 5 issues, no consensus was reached on the importance of 5 issues, and experts did not suggest new issues. (2) sales aspect: There is a consensus on the importance of 4 issues, but there is no consensus on the importance of 6 issues, and experts have not suggested new issues. (3) store design aspect: There is a consensus on the importance of 4 issues, but there is no consensus on the importance of 6 issues, and experts have not suggested new issues. The importance of the consensus issues is shown in Table 3.

Specifically, 5 consensus issues in the product dimension, the experts' consensus on their importance is as follows: (1) "The taste of bakery products", the importance consensus is 4.9, which is close to the level of 5, converted into an importance percentage of 98%, which is considered the most critical success factor by experts; (3) "the freshness of baked products", the importance consensus is 4.8, which is also close to level 5, and the conversion into importance percentage is 96%, this is the second critical success factor in the opinion of product experts; (5) "whether special ingredients are added to bakery products", the importance consensus is slightly lower than 3, and the conversion into an importance percentage is 60%; (7) "packaging of bakery products", the importance consensus is 4, and the percentage of importance is 80%; (8) "whether the bakery products are made by famous masters", the consensus of importance is 3.2, converted into percentage is 64%.

Another 4 consensus questions in the sales dimension, the experts’ consensus on their importance is: (1) "whether bakery products have brand awareness", the consensus on importance is 3.9, and the conversion into importance percentage is 78%, this is the most critical success factor considered by experts in the sales aspect; (4) "whether bakery products are sold on the internet", the importance consensus is 4.1, and the conversion into an importance percentage is 82%; (6) bakery products "whether to sell with other products", the importance consensus is 3.8, converted to an importance percentage of 76%; (9) "whether baked products can be used inside or taken away", the importance consensus is 4, converted to an importance percentage of 80% .

Next, 4 issues that reached a consensus in the store design dimension, the consensus of the experts on their importance is: (2) "the size of the physical storefront", the consensus on the importance is 3.8, and the conversion into the importance percentage is 76%; (4) "purchasing flow design of physical stores", the importance consensus is 4.2, converted into an importance percentage of 84 %, which is considered the most critical success factor in store design experts; (8) in the store design, “whether there is a chain system", the importance consensus is 3.1, converted into an importance percentage of 62%; (10) "whether physical stores provide internal services", the importance consensus is 3.1, converted into an importance percentage of 62%.

Moreover, in terms of the 5 consensus questions in the aspect of service mode, the experts' consensus on their importance is respectively: (1) "whether the service staff's sales attitude is friendly", the consensus on the importance is 4.9, and the conversion into the importance percentage is 98%, this is the most critical success factor considered by experts in the aspect of service mode ; (2) "whether the number of service personnel is sufficient", the importance consensus is 3.9, converted into an importance percentage of 78%; (3) "whether the service personnel wear uniforms or not", the importance consensus is 4 , converted into an importance percentage of 80%; (5) "whether mobile payment is provided", the importance consensus is 3.6, converted into an importance percentage of 72%. (10) "whether to provide online ordering", the consensus of importance is 4, and the percentage of importance converted into 80%.

Table 3 Consensus questions for the first round

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | least most | | | | |
| No. | Dimensions and items | | 1 | 2 | 3 | 4 | 5 |
| **Product** | | |  |  |  |  |  |
| 1 | Taste of bakery products | |  |  |  | 4.9 |  |
| 3 | Freshness of bakery products | |  |  |  | 4.8 |  |
| 5 | Are there special ingredients added to baked products?  ( Omega-3 , Calcium) | |  |  | 3 |  |  |
| 7 | How baked goods are packaged | |  |  |  | 4 |  |
| 8 | Are baked products made by well-known chefs? | |  |  | 3.2 |  |  |
| **Sales** | | |  |  |  |  |  |
| 1 | Does bakery products have brand awareness? | |  |  | 3.9 |  |  |
| 4 | Are bakery products sold online | |  |  |  | 4.1 |  |
| 6 | Whether the bakery product is sold with other products  (coffee, drinks) | |  |  | 3.8 |  |  |
| 9 | Whether bakery products can be used in or taken away | |  |  |  | 4 |  |
| **Store design** | | |  |  |  |  |  |
| 2 | The size of the physical storefront | |  |  | 3.8 |  |  |
| 4 | Purchase flow design for physical stores | |  |  |  | 4.2 |  |
| 8 | Does the physical store have a chain system? | |  |  | 3.1 |  |  |
| 10 | Does the physical store provide in-house services? | |  |  | 3.1 |  |  |
| **Service method** | | |  |  |  |  |  |
| 1 | Is the sales attitude of the service staff friendly? | |  |  |  | 4.9 |  |
| 2 | Is the number of service personnel sufficient | |  |  | 3.9 |  |  |
| 3 | Are service personnel wearing uniforms? | |  |  |  | 4 |  |
| 5 | Is there mobile payment available? | |  |  | 3.6 |  |  |
| 10 | Whether to provide online ordering | |  |  |  | 4 |  |

The questions that did not reach a consensus in the first round are shown in Table 4, that is the questions with a quartile deviation of more than 0.6. Among them, (1) In the product dimension, there are 5 questions that did not reach a consensus, including "appearance of baked products (style, size, color)", "whether bakery products are healthy (high fiber, low sugar)", "price of bakery products", "whether bakery products emphasize environmental protection", "whether bakery products can be customized". (2) In the sales aspect, there are 6 questions that did not reach a consensus, including "whether the bakery products are commercially advertised", "whether the bakery products are easy to buy", "whether the bakery products are sold in physical stores", "whether the bakery products employ famous spokespersons”, “promotional activities for bakery products”, “is there any bakery products for tasting”. (3) no consensus has been reached on 6 issues in store design, including "whether the signboard design of the physical storefront is attractive", "the placement of product display cabinets in the physical storefront", "the brightness of the light in the physical storefront", "the appearance of the physical storefront". location", "number of physical stores", "whether the physical stores provide parking lots".

Table 4 Questions for which no consensus was reached in the first round

|  |  |  |
| --- | --- | --- |
| No. | Dimensions and items | Quartile deviation |
| **Product** | |
| 2 | Appearance of the baked product (style, size, color) | 1.25 \_ |
| 4 | Whether bakery products are healthy (high fiber, low sugar) | 1 |
| 6 | The price of bakery products is high and low | 1 |
| 9 | Do bakery products emphasize environmental protection? | 1 .5 |
| 10 | Can bakery products be customized? | 1 |
| **Sales** | |  |
| 2 | Are bakery products commercially advertised? | 1 |
| 3 | Are bakery products easily available? | 1 .5 |
| 5 | Whether bakery products are sold in physical stores | 1 |
| 7 | Does the bakery product have a well-known spokesperson? | 1.25 \_ |
| 8 | Promotions for bakery products | 1 .5 |
| 1 0 | Are there bakery products available for tasting? | 1 |
| **Store design** | |  |
| 1 | Is the signboard design of the physical store attractive? | 1 |
| 3 | Display cabinet placement in physical stores | 1.25 \_ |
| 5 | The brightness of the physical storefront | 1.75 \_ |
| 6 | Physical store location | 1 |
| 7 | Number of physical stores | 1 .5 |
| 9 | Does the physical store provide parking | 1 |
| **Service method** | |  |
| 4 | Is there a credit card payment | 1 |
| 6 | Is there any virtual currency payment | 1.25 \_ |
| 7 | Is there any accumulative points provided? | 1 |
| 8 | Is there a mass order | 1 |
| 9 | Do you offer home delivery | 1 .5 |

The first round of questionnaire survey ended, and the experts did not suggest any additional questions. Therefore, the questions that did not reach a consensus in the first round were integrated and made into a second round of questionnaires. The experts were asked to re-evaluate the importance of all the questions .

**(2) The second round of questionnaire survey**

After the first round of questionnaire survey, 22 questions that did not reach a consensus were arranged to make the second round of questionnaire survey. In the second round of the questionnaire, the average value and standard deviation of the expert opinions on the issues that did not reach consensus in the first round were noted, providing a reference for experts to rethink and evaluate the issues that did not reach consensus. After the second round of questionnaire survey was collected, experts selected according to their importance, and the quartile deviation of expert opinions was analyzed, which was used as the basis for judging the consistency of expert opinions. The results found: (1) product dimension: 4 issues reached a consensus, 1 issue did not reach a consensus, and the experts did not suggest adding additional issues. (2) sales dimension: a consensus has been reached on both questions, and experts suggest adding one question. (3) store design aspect: consensus was reached on 5 questions, no consensus was reached on 1 question, and experts did not suggest adding questions. (4) service method aspect: consensus was reached on 4 questions, no consensus was reached on 1 question, and experts did not suggest adding questions. The importance of the consensus issues is shown in Table 5.

Summarily, 4 consensus issues in the product dimension, the experts' consensus on their importance is: (2) "appearance (style, size, color) of bakery products", the consensus of importance is 4.9, which is close to the grade 5, converted into an importance percentage of 98%; (4) "whether bakery products are healthy (high fiber, low sugar)", the importance consensus is 4.8, which is also close to level 5, converted into an importance percentage of 96%; (6) "the price of bakery products", the importance consensus is 4.8, converted to an importance percentage of 96%; (9) "whether bakery products emphasize environmental protection", the importance consensus is 4.2, converted to an importance percentage of 84%.

Five consensus questions in the sales dimension are: (2) "whether bakery products are commercially advertised", the consensus on the importance is 4.2, converted into an importance percentage of 84 %; (3) "whether bakery products are easy to buy", the importance consensus is 4.7, converted to an importance percentage of 94%; (5) "whether bakery products are sold in physical stores", the importance consensus is 4.7, the percentage converted into importance is 94%; (7) "whether there are well-known spokespersons for bakery products", the importance consensus is 3.9, and the percentage converted into importance is 78%. (10) "whether there are bakery products for tasting", the importance consensus is 3.8, and the conversion into importance percentage is 76 %.

There are 5 consensus issues in the store design dimension, and the experts' consensus on their importance is: (1) "whether the signboard design of the physical store is attractive", the importance consensus is 4, and the importance percentage converted into 80%; (3) "the arrangement of product display cabinets in physical stores ", the importance consensus is 4.1, converted to an importance percentage of 82%; (5) "the light brightness of physical stores", the importance consensus is 4.9, converted into an importance percentage of 98%; (6) "the location of the physical store", the importance consensus is 4.8, converted into an importance percentage of 96%; (9) "whether the physical store provides a parking lot", the importance consensus is 3.9, converted into an importance percentage of 78%.

On the importance of the four consensus questions in the aspect of service methods is: (4) "whether credit card payment is provided", the importance consensus is 4.8, converted into an importance percentage of 96%; (6) "whether virtual currency payment is provided", the importance consensus is 3.9, converted to an importance percentage of 78%; (7) "whether accumulated reward points are provided", the importance consensus is 4.9, converted into important (9) "whether home delivery is provided", the importance consensus is 4.1, converted into an importance percentage of 82%.

Table 5 Consensus questions for the second round

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | least most | | | | |
| No. | Dimensions and items | | 1 | 2 | 3 | 4 | 5 |
| **Product** | | |  |  |  |  |  |
| 2 | Appearance of the baked product (style, size, color) | |  |  |  | 4.9 |  |
| 4 | Whether bakery products are healthy (high fiber, low sugar) | |  |  |  | 4.8 |  |
| 6 | The price of bakery products is high and low | |  |  |  | 4.8 |  |
| 9 | Do bakery products emphasize environmental protection? | |  |  |  | 4.2 |  |
| **Sales** | | |  |  |  |  |  |
| 2 | Are bakery products commercially advertised? | |  |  |  | 4.2 |  |
| 3 | Are bakery products easily available? | |  |  |  | 4.7 |  |
| 5 | Whether bakery products are sold in physical stores | |  |  |  | 4.7 |  |
| 7 | Does the bakery product have a well-known spokesperson? | |  |  | 3.9 |  |  |
| 10 | Are there bakery products available for tasting? | |  |  | 3.8 |  |  |
| **Store design** | | |  |  |  |  |  |
| 1 | Is the signboard design of the physical store attractive? | |  |  |  | 4 |  |
| 3 | Display cabinet placement in physical stores | |  |  |  | 4.1 |  |
| 5 | The brightness of the physical storefront | |  |  |  | 4.9 |  |
| 6 | Physical store location | |  |  |  | 4.8 |  |
| 9 | Does the physical store provide parking | |  |  | 3.9 |  |  |
| **Service method** | | |  |  |  |  |  |
| 4 | Is there a credit card payment | |  |  |  | 4.8 |  |
| 6 | Is there any virtual currency payment | |  |  | 3.9 |  |  |
| 7 | Is there any accumulative points provided? | |  |  |  | 4.9 |  |
| 9 | Do you offer home delivery | |  |  |  | 4.1 |  |

Questions of no consensus in the second round are shown in Table 6 , among which (1) there was no consensus on one question in the product aspect, that is, "whether baked products can be customized", and (2) there was no consensus on one question in the sales aspect, that is, "promotional activities for bakery products", (3) there was no consensus on one issue in store design, that is, “the number of physical stores", (4) there was no consensus on one issue in service methods, that is, "whether mass customization is available."

Table 6 Questions for which there was no consensus in the second round

|  |  |  |
| --- | --- | --- |
| No. | Dimensions and items | Quartile deviation |
| **Product** | |
| 1 0 | Can bakery products be customized? | 1 |
| **Sales** | |  |
| 8 | Promotions for bakery products | 1.25 \_ |
| **Store design** | |  |
| 7 | Number of physical stores | 1 |
| **Service method** | |  |
| 8 | Is there a mass order | 1 |

**(3) The third round of questionnaire survey**

The results of the second round of the questionnaire did not reach a consensus on 4 questions, so the third round of questionnaire survey was made , and the average and standard deviation of the expert opinions of the second round of questions were noted in the questionnaire to let the experts know their opinions in the second round , and the gap between other experts, as a reference for re-evaluating the importance of issues that do not reach consensus.

The third round of questionnaire survey collected and analyzed the quartile deviation of experts' opinions and found: (1) product dimension: the quartile deviation is 0, and a consensus has been reached on the question. (2) sales facet: the quartile deviation is 1, and there is no consensus on the problem. (3) store design aspect: the quartile deviation is 1, and there is no consensus on the problem. (4) service mode facet: the quartile deviation is 1, and there is no consensus on the problem.

One issue reached a consensus in the product dimension, the experts' consensus on their importance is: (10) "whether baked products can be customized", the importance consensus is 4.8, converted into an importance percentage of 96%.

Table 7 The importance of the issue reached consensus in the third round

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Dimensions and items | least most | | | | |
| 1 | 2 | 3 | 4 | 5 |
| **Product** | |  |  |  |  |  |
| 10 | Can bakery products be customized? |  |  |  | 4.8 |  |

Results of third round are shown in Table 8, among which (2) there was no consensus on one issue in the sales dimension, that is, "promotional activities for bakery products ", and (3) there was no consensus on one issue in the store design, that is, "the number of physical stores", (4) There is no consensus on one issue in the service method, that is, "whether mass customization is provided".

If there are any unconsensus questions in the third round of the Delphi questionnaire, the fourth round of the questionnaire will not be conducted again. Therefore, although there are three questions without consensus, the entire Delphi questionnaire in this study is completed.

Combining the three rounds of Delphi method expert questionnaires, if the importance of the four facets of product, sales, store design and service method are put together and ranked in order, Table 8 can be obtained, among which there are 5 in the first place in importance, which are the "taste of bakery products" and "appearance (style, size, color) of bakery products " of the product. "the light and brightness of the physical store" in the store design, "whether the sales attitude of the service staff is friendly" and "whether accumulated reward points are provided " in the service. It can be found that experts believe that the key success factors for bakery shops are products, store design and services, rather than advertising and sales. There are 6 products ranked second, namely "freshness of baked products", "whether baked products are healthy (high fiber, low sugar)", "price of baked products" and "whether baked products can be customized". The "location of the physical store" in the store design and the "whether credit card payment is provided" in the service. There are 5 ranked third, namely " whether the bakery products emphasize environmental protection" of the product, " whether the bakery products are commercially advertised", "whether the bakery products are easy to buy" and "whether the bakery products are in physical stores sales". "Purchasing flow design of physical storefront" for storefront design. There are 3 ranked fourth, namely" whether bakery products are sold online", "whether the bakery products are sold online", "the way the product display cabinets are placed in the physical store" for the store, and "whether home delivery is provided" for the service. There are 5 rankings in fifth place, namely the "packaging method of baked products" of the product, "whether the baked product can be used inside or taken away" for sales, "whether the signboard design of the physical store is attractive" and the service " whether the service staff wears a uniform" and "whether online ordering is available". Judging from the top five key success factors of bakery stores above, out of the total 24 factors, products account for 8, sales account for 5, store design accounts for 5, and service methods account for 6. If we look at the 16 factors in the top three, products account for 7, sales account for 3, store design accounts for 3, and service methods account for 3. In other words, the experts believed that the key success factor of the bakery was the product, indicating that the experts believed that without the support of the product, blind promotion and advertising would not help much. See Table 10 for details .

Table 8 Importance ranking of critical success factors for bakery shops

|  |  |  |  |
| --- | --- | --- | --- |
| Importance ranking | Question | Dimensions and items | Importance |
| 1 | product 1 | Taste of bakery products | 4.9 |
| product 2 | Appearance of the baked product (style, size, color) |
| store 5 | The brightness of the physical storefront |
| service 1 | Is the sales attitude of the service staff friendly? |
| service 7 | Is there any accumulative points provided? |
| 2 | Product 3 | Freshness of bakery products | 4.8 |
| product 4 | Whether bakery products are healthy (high fiber, low sugar) |
| product 6 | The price of bakery products is high and low |
| product 10 | Can bakery products be customized? |
| store 6 | Physical store location |
| service 4 | Is there a credit card payment |
| 3 | product 9 | Do bakery products emphasize environmental protection? | 4 .7 |
| sale 2 | Are bakery products commercially advertised? |
| sale 3 | Are bakery products easily available? |
| sale 5 | Whether bakery products are sold in physical stores |
| store 4 | Purchase flow design for physical stores |
| 4 | sale 4 | Are bakery products sold online | 4.1 |
| store 3 | Display cabinet placement in physical stores |
| service 9 | Do you offer home delivery |
| 5 | product 7 | How baked goods are packaged | 4.0 |
| sales 9 | Whether bakery products can be used in or taken away |
| store 1 | Is the signboard design of the physical store attractive? |
| service 3 | Are service personnel wearing uniforms? |
| service 10 | Whether to provide online ordering |

If the scores of the top three important factors are summed up, we can get a comparison as shown in Table 9. From the table, we can find that the importance of product aspect accounts for 43.9%, followed by 18.9% of service method, and the importance of store design accounting for 18.8%, the last one is sales accounting for 18.4%. But the service method, store design and sales percentage are actually very close.

Table 9 The total score and percentage of the top three important factors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Product | Sales | Store design | Service method |
| Sum | 4.9\*2+4.8\*4+4.7\*1 | 4.7\*3 | 4.9\*1+4.8\*1+4.7\*1 | 4.9\*2 +4.8\*1 |
| Total score | 33.7 | 14.1 | 14.4 | 14.6 |
| Percentage | 43.9% | 18.4% | 18.8% | 18.9% |

**V. Conclusions**

A bakery shop is a place frequented visited by many people because it is ubiquitous in the streets and alleys, and it offers many different product choices, which is very convenient for busy office workers. That is to say, because of the huge demand in the market, there are various competing brands everywhere. How to stand out from the crowd of competitors is the main business issue of every bakery shop. In order to explore the critical success factors of bakery shops, this study adopts the modified Delphi method questionnaire survey, which uses four aspects of product, sales, store design and service methods, and obtains the importance of the critical success factors of bakery shops from 15 experts. Three rounds of the questionnaire were conducted, and results found that the most important factors were "taste of bakery products", " appearance (style, size, color) of bakery products" on the product surface, and " brightness of the physical storefront" on storefront design, and "whether the sales attitude of the service staff is friendly" and "whether accumulated reward points are provided " on the service side. The importance of the first four factors is easy to understand, and the last one "whether there are accumulated reward points " is also considered very important by experts. The reason should be that visiting bakery shops is almost an inevitable daily itinerary for many people. If there are accumulated consumption points, one can quickly get a lot of discounts, which will be of great help to attract customers to come and spend. The second most important factors are "freshness of baked products", "whether baked products are healthy (high fiber, low sugar)", "price of baked products" and "whether baked products can be customized", store design "The location of the physical store" and "whether credit card payment is provided" on the service side. The third most important factor is "whether the bakery products emphasize environmental protection " on the product side, "whether the bakery products are commercially advertised", " whether the bakery products are easy to buy", "whether the bakery products are sold in physical stores" and the "purchasing flow design of physical store". From the importance of the top three, it can be found that experts believe that products are the most important key to the success of bakery shops, accounting for about 43.9 % of the importance, followed by service methods accounting for 18.9 %, and then store design accounting for 18.8 %, sales method is the lowest importance accounting for 18.4 %.

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