

# Problems and Countermeasures in the Construction of Campus Catering and Health E-commerce Platform

Yi He, Dan Chen, Zhengqing Zhou, Juan Li

Northwest Minzu University, Lanzhou, Gansu, 730106, China

**Abstract:** Nowadays, there are many cafeterias on campus with a wide variety of options. Many students may often be confused about what to eat and how to eat more cheaply and healthily, in order to ensure that students can eat with peace of mind and also keep track of their basic health status at any time. Taking Northwest Minzu University as an example, this paper first investigates the operation of the campus canteen, and then conducts a comprehensive analysis of the students' dining conditions and basic health conditions. By building and implementing a campus catering and health e-commerce trade platform, problems are identified and improved and continuously improved based on the actual situation. Provide more efficient service guarantees and a comfortable dining environment for the dietary health of teachers and students in school.

**Keywords:** Campus catering, Health, E-commerce platforms, Problems, Countermeasures.

## 1. Current Situation of Campus Canteen Catering

The research content of this paper takes the teachers, students and staff of Northwest Minzu University (Yuzhong Campus) as the research object. With the goal of promoting healthy eating for teachers and students, on-site interviews were conducted on the operation of each dining window in the eleven canteens of the campus. To ensure the effectiveness and accuracy of this interview, the questionnaire survey was conducted in detail under the leadership of the general manager of each canteen. After the interview, the final analysis of the interview situation was conducted.

Firstly, most of the windows in the cafeteria are very satisfied with their business operations, while a few are generally satisfied; Secondly, all windows have received suggestions from students to improve the dishes; Thirdly, most windows have promoted window dishes, while a few have not; Fourth, all windows are willing to join in if there is a software or official account to publicize the food information for them in a timely manner, and regularly feed back the students' evaluation of the food. In summary, the current operation of our school's cafeteria catering is good, but there is still a significant demand for the promotion of dishes and windows, and it reflects that student feedback information cannot be fully processed.

After conducting team interviews with all cafeterias, the situation is as follows: firstly, our school's catering services are still in a "wide and comprehensive" traditional supply mode, with the premise of ensuring food hygiene, safety, and normal dining. University catering is generally contracted out through commercial bidding, introducing qualified catering enterprises and making profits on their own. Contractors, on the other hand, adopt a corporate approach to business operations. In order to pursue cost reduction, they often use small profits and high sales promotions to achieve benefits, resulting in poor quality and flavor of dishes, as well as high prices. Secondly, the business operation of the school cafeteria restaurant is in good condition; Thirdly, due to the increasing number of new merchants added by the school, the student dining area has gradually been transformed into a merchant production area, further compressing the dining

space for teachers and students; Fourthly, students are crowded during peak dining hours. The peak period for students to eat is usually concentrated in the first thirty or forty minutes after noon, with a sharp increase in passenger flow and congestion in the school cafeteria.

The outdated operation and management model, outdated service management methods, and poor taste of dishes in school restaurants are far from meeting the increasing dietary requirements of teachers and students. Although companies that contract school catering are also constantly improving the dining environment, offering discounted packages, and improving service quality, the current business model of campus catering still cannot meet the dietary needs of students.

## 2. The Ideas and Implementation of The Construction of Campus Catering and Health E-commerce Platform

### 2.1. Thoughts on the Construction of Campus Catering and Health E-commerce Platform

#### 2.1.1. Initial ideas for platform construction

(1) Public account: school students can use this official account to query the name of the restaurant, and let school students find their own dishes by ranking the price, popularity, distance, sales volume, etc. After selecting a dish and having a meal, students can make comments and recommendations under the corresponding dish, and share the news of the dish with their friends' circle in one click, allowing more students to choose this dish. Merchants can use backend data analysis to make appropriate modifications and adjustments to dishes in a timely manner, creating dishes that are more in line with the taste of college students.

(2) Applet: On the premise of combining the functions of the official account, the physical health monitoring function of the applet development users will be added, including the analysis of calorie intake of diet, the analysis of calorie consumption of exercise, and the prediction and prompt of female physiological period [4].

### 2.1.2. Functions of official account

#### (1) Health reminder function

The fitness reminder function will be added in the applet, and it will also be combined with the data analysis technology on the student side, and interact with the fitness management software to achieve resource sharing, classify the students' Health data, and serve as an important basis for evaluating the overall health of students. And conduct statistics on students' search information and analyze their dietary habits. At the same time, use public accounts to post health reminder messages and timely inform students of their physical condition.

#### (2) Search and campus card recharge function

Students can input different keywords according to their own needs, find their own dishes through different search sorting, and recharge campus cards through the official account applet.

#### (3) Feedback function

Merchants and students can provide feedback on the software through this feature, and we will reward the feedback merchants or students accordingly.

### 2.1.3. Functions of the applet

#### (1) Dish display function

At the initial stage of the project, the team will cooperate with the school logistics group and the canteen merchants to collect the food information and display the picture, name, sales volume and evaluation of the food on the official account.

#### (2) Student recommendation and dish recommendation function

When learners choose a dish, they can recommend it and receive a certain bonus after a certain number of times. Every day, our team will also screen each dish and place the dish with the highest recommendation on the homepage for learners to refer to. Our team will also regularly analyze the recommended quantity used by each student and the number of related dishes browsed. By analyzing and displaying the user's health status, we will regularly recommend dishes that meet our own health status.

#### (3) Student evaluation and promotion of dish functions

After students choose dishes, they can make judgments or comments on the dishes, and the shop owner can make these judgments as soon as possible. Merchants can make appropriate modifications based on the students' judgments to produce dishes that are more in line with the taste of college students. Students can also forward the dish to their social media to promote it.

#### (4) Merchant Upload Menu Function

Merchants can publish the required dishes according to their own needs, fill in personal information about the dishes, and submit photos of the dishes. You can also perform functions such as changing, revoking, and searching dishes [6].

#### (5) Feedback function

Merchants, students, and schools can use this feature to provide feedback on the software and provide certain encouragement to the feedback merchants or schools.

#### (6) Physical health monitoring function

By combining school physical examination data and personal information entered by students, comprehensive analysis will be conducted to monitor and monitor their health status at any time. At the same time, activities such as "Student Happy Run" will be carried out in collaboration with the school. During the activity period, completing

corresponding tasks can earn integrated education points or be used as a "semester exercise duration" assessment.

#### (7) Female Physiological Assistant (Personal Version)

This function is only available for female users. The time of the next physiological period can be accurately calculated after two physiological period records, so that female users can reduce the burden. At the same time, the canteen merchants will also be recommended to sell brown sugar ginger tea, red jujube Congee and other dinner products.

## 2.2. Implementation of Campus Catering and Health E-commerce Platform Construction

### 2.2.1. Actual situation of platform construction

(1) Official account: it can realize health prompt function, merchant student feedback function, merchant registration, click to enter the applet function.

(2) Applet: It can achieve dish display function, student recommendation and recommendation function, student evaluation and promotion function, merchant uploading dish function, merchant student feedback function.

### 2.2.2. Summary of Platform Construction

This platform has been uploading dish information and improving related functions since May 26, 2022. Currently, it is operating well and has received good user experience evaluations.

## 3. Issues in the Construction of Campus Catering and Health E-commerce Platforms

### 3.1. Difficulty in making dish reservations

During the project implementation process, the team initially envisioned the implementation of the dish reservation function. Through a series of on-site inspections and trial operations, the canteen merchants reported that the use of this function resulted in situations such as ordering without picking up food, information asymmetry, etc. At the same time, it was also considered that most of the canteen dishes were student food, and dishes prepared in advance in winter were prone to cooling, resulting in poor taste, and other situations. Therefore, it is difficult to implement early reservation of dishes.

### 3.2. Canteen labor costs have increased

If the project is successfully implemented, for the cafeteria windows, it is necessary to add a dedicated person responsible for packaging and inspecting dishes. Based on the current operating situation of each cafeteria window, increasing personnel means increasing labor costs and reducing profits.

### 3.3. Replacement of cafeteria merchant windows

Through preliminary investigation and statistics, it has been found that the cafeteria windows of the school are constantly changing every semester, with windows disappearing due to poor operating conditions or personal reasons of merchants, and new windows added in the new semester. The team not only needs to delete the disappeared merchants, but also needs to input the window information of the new merchants into the system before the start of the new semester, which has a certain impact on the normal implementation and operation of the project.

### 3.4. The impact of out-of-school takeaways

After the comprehensive opening of the epidemic, off campus food delivery has attracted students to purchase through significant discounts and innovative promotions. Compared to on campus cafeteria merchants, off campus food has much lower store rent, commission, and various expenses. Therefore, off campus food can lower prices on the same dish while also improving dish quality and reducing production costs.

### 3.5. School Catering Planning Direction

During the initial research of this project, it was learned that the school's catering department is currently affected by various factors, and its sales methods can only adopt the current "wide and comprehensive" traditional sales and supply model. As a result, the implementation of this project will affect the normal operation of the school's catering department, so continuous innovation and integration with the current actual situation can only ensure the sustainable development of the platform.

## 4. Problems and Countermeasures for the Construction of Campus Catering and Health E-commerce Platform

In response to the problems discovered during the implementation of the platform, the following suggestions and countermeasures are proposed:

### 4.1. Continuously updating dishes

The platform will continue to follow up on the actual situation of the dining windows in the school cafeteria in subsequent operations, and regularly make changes to the reduced and newly added merchant information to ensure a good experience for teachers, students, and users of the platform. At the same time, timely promote the new and popular dishes of merchants, and continuously improve the information of dishes, with comprehensive updates of dish photos.

### 4.2. Carry out food collection activities

After the normal operation of the platform, regular collection activities related to food will be organized. The content of the collection is about the dining experience and exquisite pictures of the cafeteria dishes of the school teachers and students. The collected works will be reviewed and selected, and the high-quality works will receive gifts. At the same time, they will be promoted on the social platform of the platform's official website. At the same time, it can also cooperate with the school to carry out activities such as "CD Heartbeat", "Healthy Diet", and "Food Saving".

### 4.3. Check in and accumulate points for a healthy diet

The platform will activate the daily health check-in function. Teachers and students can upload healthy eating information and real-time meal images on a daily basis, complete the corresponding check-in days, and receive gifts from the platform. These gifts are exquisite sports kettles and items that promote physical health, thereby promoting the enthusiasm of teachers and students for healthy eating.

### 4.4. Continuously updating the iteration platform

The platform system will continuously iterate and update according to the actual situation to meet the needs of itself and users. Only by updating and iterating the platform's operation mode, activity development mode, and related sections based on user experience and actual needs can the platform continue to operate.

## Acknowledgment

Fund projects: 2022 Northwest Minzu University National Undergraduate Innovation and Entrepreneurship Training Program Funding Project "Xiao Shi Tong--Catering+Health Integrated Service official account and Small Procedures" (20221074001); 2022 Northwest Minzu University Undergraduate Innovation and Entrepreneurship Training Program Funding Project "Xiao Shi Tong--Catering+Health Integrated Service official account and Small Procedures" (X20221074009)

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