

teaching note

A Beautiful Misunderstanding – 7c Kitchen

Introduction/Summary

The case discusses the status and treatment of food loss and waste in Taiwan. It highlights the founding and operational details of 7C Kitchen, an organization that collects inglorious fruits and vegetables (ugly F&V) from the local market and prepares them into simple meals and ready-to-eat packages for sale to consumers. The operation of 7C Kitchen, adds value to ugly F&V which would otherwise be discarded, thereby reducing food waste. However, in the course of operation, 7C Kitchen encountered issues of pricing and customer acceptance of ugly F&V, both of which are raised for discussion.

Learning Outcomes

The aim of this course is to use the case organization to help college students understand the status of food loss and food waste as well as the related issues of consumer attitude inspired by the subject diner. First, the course introduces food supply chain and based on stakeholder theory, students will understand through role playing how food loss and waste happen in the food supply chain. Then, through discussions of the case subject “7C Kitchen”, students will discuss some of the ways food loss and food waste issues can be tackled and see if surplus food diners can make an effective contribution.

By the end of this session, students should be able to:

- Understand food supply chain, stakeholders, food loss and food waste, and distinguish between food loss and food waste.
- Discuss the status of food loss and food waste and propose various feasible solutions.
- Understand what the ugly fruits and vegetables are and comment on customer acceptance of ugly F&V.
- Discuss if the surplus food diner concept is a workable solution to tackle food waste.
- Discuss the operational challenges the case diner faces and their possible solutions.

Prior to Class

Prior to the class, students will read the profile of the case, the slides, and reading material on food loss, food waste, and potential solutions. Students must be ready to answer and discuss the following questions/issues:

- Food supply chain
- Stakeholders
- Ugly fruits and vegetables
- Food loss vs. food waste
- Surplus food diner

- Consumer behavior
- Pricing strategy

The issues related to the case diner:

- Please discuss in what stages of the food supply chain do the food loss and food waste occur?
- Please point out the stakeholders of food supply chain.
- What are the effects of food loss and waste on the stakeholders in the food supply chain?
- What is the consumer’s acceptance of ugly fruits and vegetables?
- If you were the operator of the case diner “7C Kitchen”, what would be your pricing policy and how would you market the diner?

Class Instruction

Phase I (60-75 minutes)

The aim of Phase I is to increase students’ understanding and awareness of food loss and food waste, let students take the initiatives to understand the state of the issue, and try to discover the food waste issues in their daily life. At the same time, through role playing the stakeholders in the food supply chain, students are encouraged to consider solutions to the conditions they are role playing.

Students will define the following terms in groups (10 minutes):

- Food supply chain
- Stakeholders
- Food loss vs. food waste
- Surplus food diner

Teacher will propose the following questions and lead the discussion:

1. Ask students if they can distinguish food loss from food waste. (<http://www.fao.org/food-loss-and-food-waste/zh/>)
2. Teachers will present the illustration and introduce food supply chain. Based on the illustration, teachers could invite students to explain food supply chain. Take farm produce as an example. The produce is grown on the farm and harvested by machine or manual labor; the produce then goes through various stages of handling and process, like preliminary cleaning and packaging, or processed into food products; the produce is then delivered to traditional markets or supermarkets through various distribution channels; finally, it is purchased by the consumer. Should the students have any doubt or need assistance, they can search online.

Figure 1

Food Supply Chain



Teacher’s explanation (3 minutes): Food loss and food waste refer to the reduction of food in the subsequent stages of the food supply chain for human consumption. Food loss and food waste occur in coherent supply chains from the initial production process to the final household consumption. The reasons may include issues such as harvesting, storage, packaging, transportation, infrastructure, or market/price mechanisms, and the institutional and legal frameworks. For example, a harvested banana falling from a truck can be considered a food loss. Foods that are suitable for human consumption but are discarded due to deterioration or degraded from long-term storage by retailers or consumers are referred to as food waste. This may be due to misleading food expiration provisions or their over enforcement, as well as improper storage, purchase, or cooking methods. For example, the act of a store’s throwing away a carton of bananas with slight brown spots on the skin is considered a food waste. Reducing food loss and waste is getting global attention and action. Governments, research institutes, producers, distributors, retailers and consumers have different views on how this issue, including the solutions and the capacity of correcting the problem, should be tackled. (Source: <http://www.fao.org/food-loss-and-food-waste/zh/>)

- Each group draws lots to role play the stakeholders in the agricultural food supply chain: producers, wholesaler, transporters, vendors in traditional market, supermarket managers, and consumers. From the perspective of the roles they play, students explain how food loss and food waste can happen. (15 minutes)

Teacher’s summation and guidance (2 minutes):

From the discussions above, we understand food loss can hap-

pen in every stage of food supply chain. The food wastage due to appearance or poor presentation can happen in every stage, from wholesalers buying from the producers to the sales process in the traditional market or supermarket. At the production end, produce can be labeled “off-grade” because it didn’t meet the buying specifications. At the traditional market, it could be poor presentation due to short shelf life and lack of proper storage. In the supermarkets, besides the issue of poor storage, there is the issue of restrictions on the expiration date, leading to the removal of edible food that has past the expiration date been removed from the shelf. What we have talked about here can be called the ugly fruits and vegetables (ugly F&V). Next, let me ask you. Can you accept ugly fruits and vegetables?

Teacher: Let’s look at these pictures (display the following pictures of ugly fruits and vegetables). What kinds of ugly F&V can students accept? Why? Why not? Please discuss in groups. (Student discussion, 15 minutes)

Teacher: How should these ugly F&V be dealt with to reduce food waste? Please take the perspective of the role you play. What can be done within your capacity? (Student discussion, 15 minutes)

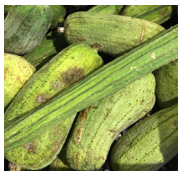
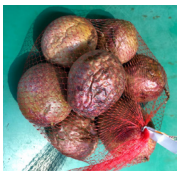

Phase II (60-75 minutes)

Ask groups to explain the background of the case firm “7C Kitchen”. (20 minutes)

- What is a surplus food diner? What are its goals?
- Briefly summarize the status of surplus food in Taiwan based on the case.
- Describe the founding background and goals of 7C Kitchen.
- Describe the operational status of 7C Kitchen.

Table 1

Examples of Ugly Fruits & Vegetables

Items	1	2	3	4	5
Picture					

Assign each of the following questions to one or two groups and ask them to prepare an answer (20 minutes):

- Please discuss in what stage of food supply chain do the food loss and food waste occur?
- Please point out the stakeholders in the food supply chain.
- What is the impact of food waste and food loss on the stakeholders?
- How well do the consumers accept the ugly F&V?
- If you were the operator of the case firm “7C Kitchen”, how would you set your pricing policy? And how would you market the diner?

Let each assigned group present their answers to the class and allow class discussions (15 minutes):

- Please discuss in what stage of food supply chain do the food loss and food waste occur?
- Please point out the stakeholders in the food supply chain.
- What is the impact of food loss and food waste on the stakeholders?
- How well do the consumers accept the ugly F&V?
- If you were the operator of the case firm “7C diner”, how would you set your pricing policy? And how would you market the diner?

Summarize the case study and ask students about what they have learned from this topic and the case study (10 minutes).

Assignment after teaching sessions

Based on the above discussions, ask every student to interview consumers after the session to find out how well do the consumers understand and accept ugly F&V. Learn about the pricing level the surplus food diner’s consumer can accept and explain why. Collect marketing approaches of surplus diners and propose marketing recommendations for 7C Kitchen.

Assessment

Develop multiple choices, true or false, and short answer questions related to topics discussed in class.

Additional Reading Materials for Students:

- Aschemann-Witzel, J., Jensen, J.H., Jensen, M.H., & Kulikovskaja, V. (2017). Consumer behaviour towards price-reduced suboptimal foods in the supermarket and the relation to food waste in households. *Appetite*, 116: 246–258.
- Barrett, N. (2014). How to stop wasting food? *OECD Observer*, 299: 18-18.
- Calvo-Porrà, C., Medín, A.F., & Losada-López, C. (2017). Can marketing help in tackling food waste?: Proposals in developed countries. *Journal of Food Products Marketing*, 23(1): 42–60.
- deHooge, I. E., Oostindjer, M., Aschemann-Witzel, J., Normann, A., Loose, S.M., & Almlí, V.L. (2017). This apple is too ugly for me!: Consumer preferences for suboptimal food products in the supermarket and at home. *Food Quality and Preference*, 56: 80–92.

Kowalska, A. (2017). The issue of food losses and waste and its determinants. *LogForum*, 13 (1): 7-18.

Kulikovskaja, V. & Aschemann-Witzel, J. (2017). Food Waste Avoidance Actions in Food Retailing: The Case of Denmark. *Journal of International Food and Agribusiness Marketing*, 29(4): 328–345.

Peira, G., Bollani, L., Giachino, C., & Bonadonna, A. (2018). The Management of unsold food in outdoor market areas: Food operators’ behaviour and attitudes. *Sustainability (Switzerland)*, 10(4): 1–16.

Stop Spild Af Mad (2018). Stop wasting food. Retrieved 22nd of July 2018 from <http://stopwastingfoodmovement.org/>

Taiwan People’s Food Bank Association (2018). Food waste in Taiwan. Retrieved 22nd of July 2018 from <http://www.foodbank-taiwan.org.tw/food-waste-in-taiwan/>