

A Report for MEWR-NYC Youth Circle

Seeing Through Their Eyes: Perspectives of Existing and Potential Food Donors in Singapore

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INTRODUCTION

Food waste is a vexing global problem, and in Singapore, one way of tackling it may come in the form of a Good Samaritan Law Food Donation Act. This potential revision of our food-related legislation by SFA aims to encourage donation of surplus or unsold food to the needy.

In this light, this stakeholder engagement is a bid to understand the perspectives of some of the key players in our food industry, so as to better ascertain the efficacy of a Good Samaritan Law to spur food donations and how it could be supported if it come to pass.

Due to the extensiveness of the issue and limited resources, this qualitative study is scoped to focus on organisations that are existing and potential food donors. It unravels challenges and enablers that businesses encounter when it comes to donating their surplus food. It also briefly explores the perspectives of religious institutions that engage in food donation efforts.

RESEARCH DESIGN

To gather insights on how different food businesses view food donation, the research team approached companies that broadly fall in the following categories:

1. Bakeries
2. Hotels
3. Coffeeshops
4. Restaurants
5. Central kitchens
6. Retailers
7. Distributors / Wholesalers

To understand how non-profit frontline organisations engage with food donation, we approached individuals from the following:

8. Religious institutions

Before fieldwork was conducted, we intended to conduct in-depth one-on-one interviews with 3 informants in each category, leading to a total of 24 interviews. To uncover challenges that hinder food donation, the team agreed to skew the research sample towards organisations that do not donate their surplus in each category.

As fieldwork unfolded however, and informants recruited through the snowballing technique, the team conducted a total of 29 interviews to better understand insights that emerged.

The end research sample of 29 organisations is still skewed towards businesses that do not regularly donate surplus food. We also managed to have a mix of informants

from both small and medium enterprises as well as international companies. The team encountered difficulties recruiting religious institutions that has surplus food but do not engage in donation however.

Before each interview, interviewers clearly outlined the purpose of this study to informants and how their information would be used. Informants were also assured that their identities, the organisations they represent, and the information they provide would be kept confidential within the research team and used for this research only. Identifiers are therefore excluded in this report.

The interviews were conducted in-person, on Zoom and over the phone, at timings that best suit the informants. The team always requested to conduct the interviews in-person at their offices first, as such interactions could yield important visual cues. Due to our informants' busy work schedules and varying comfort levels with in-person meetings given the pandemic, Zoom or phone interviews were offered as alternatives. The interviews lasted an average of 1-1.5 hour each.

Based on our interviews with 29 informants, 23 case studies were written up. Each case study outlines an organisation's profile. It also explores their main sources of surplus food, the challenges and enablers they face when it comes to food donation, and their take on the potential implementation of the Good Samaritan Law, if any.

In situations where the profiles and sentiments of 2 organisations are very similar, only one case study was written.

CASE STUDIES: BAKERIES

1. King's Bakery / The Once-Bitten-Twice-Shy Bakery

King's Bakery is a chain with about 10 outlets across Singapore. Most of their products are breads with toppings or fillings such as black sesame, chocolate, garlic ham, and cheese. The bakery also sells breads without fillings such as multigrain toast, flaxseed bread, and cranberry walnut bread, and cakes like banana cakes and sponge cakes.

Products are baked daily in their central kitchen before transported to different outlets. The surplus that King's Bakery encounters are mainly unsold products. To reduce surplus, outlets sell their products at lower prices when closing hour draws near. Any leftovers at the end of the day are documented and disposed of.

This is a change from the business's previous policy. King's Bakery had formerly allowed their retail employees to take home unsold breads. This stopped after a few workers were found abusing it. As Amy explains, "We did give to our workers before, but some of them were not honest. For example, some wanted certain breads for themselves so they told customers that these were sold out, and then they take them home. Or they sold them at the side. So now, we don't give our breads to our workers."

To assuage their mistrust, King's Bakery has since implemented the preventive measure of not allowing workers to take home unsold products.

The business does not donate surplus food too. They donated in their first year of business, but stopped after one unpleasant incident with a charity. According to Amy, "The charity who received (surplus breads) did not pass on proper instructions, so the recipients received breads that were mouldy or they had upset stomachs. So, we stopped. Because of that, we no longer give. It became a matter of our products had a problem, and that we were not hygienic. It became our fault."

This past experience has sparked questions on the operations of charities if the company were to donate food. Like Amy says, "We finish our work day at 9+pm. By the time a charity collects our surplus and gives, I don't know when recipients will receive our breads. And where are these items stored at the charity? We don't know. If it (food donation) affects the recipients, it will affect us, and damage our reputation."

Other than these misgivings about a charity's operations, King's Bakery also questions the ability of beneficiaries to store their breads properly. As Ana explains, "When we did our donation, I guess the products went to the elderly. They may not be receptive towards storage instructions or some households do not have proper refrigeration facilities. Because of this, we stopped donating."

"We do not want food waste and people to go hungry, but it (food donation) was not a positive experience," she adds.

Because of these reservations, King's Bakery has – for the last seven or eight years – taken the precautionary measure of throwing away unsold products.

For the bakery chain, concerns about storage conditions raise to the forefront because of the short shelf life of their breads. The business does not use preservatives. Most of their products also have fillings, and are hence more susceptible to bacterial growth.

With refrigeration, the shelf life of their products could be extended. As Amy says, “If you don't consume our breads on the same day, you need to refrigerate them and they can then be kept for 3-5 days. But none of the charities does that, I think.”

In light of the government initiative to have sizable food-waste generators segregate their waste for treatment by 2024, King's Bakery intends to recycle their unsold products. They would be transported to the central kitchen and collected to be recycled.

The business sees recycling as a better option than giving their edible surplus to workers or donating it to charities. Recycling here, is not perceived as the next-best resort. When pressed on how the Good Samaritan Law will affect King's Bakery take on food donation, Amy says, “We will still not donate, because we have the alternative which is food waste recycling.”

Snapshot

Business profile:

- Bakery chain with about 10 outlets across Singapore

Main food items/services:

- Breads with and without fillings, cakes

Source of surplus:

- Unsold products

Main efforts to reduce surplus:

- Having discounts near the end of the day

Donation status:

- Does not donate at all, throws away all surplus

Barriers to donation:

1. Suspicion towards charities relating to their storage facilities, distribution time, and passing on of adequate handling instructions
2. Suspicion towards beneficiaries relating to their willingness to keep breads in fridges, and possession of fridges

3. Sees food waste recycling as a better option than giving away edible surplus to workers or donating it to charities in light of these suspicions

Overall quote:

- “We do not want food waste and people to go hungry, but it (food donation) was not a positive experience.”

2. Tasty Breads / The Give-to-Friends Bakery

Tasty Breads is a small bakery in a residential area. It has existed for more than 20 years, mainly selling buns with a variety of fillings from kaya to red bean, coconut to chicken and luncheon meat. They also have breads without fillings, such as French loaves, sliced wholemeal and white bread. The bakery carries cakes, such as pandan cake, and pastries like egg tarts as well.

Tasty Breads operates round the clock. By 8pm on a weekday however, many of their buns are already sold out. Their kitchen is at the back of the shop, and goods for the next day are made at night.

The edible surplus that Tasty Breads has are mainly unsold buns with fillings, and that do not happen every day. These buns with fillings have a shorter shelf life, compared to plain breads or cakes. Plain breads and cakes can be kept for longer to be sold.

To reduce surplus, the boss Ong gives his poorer customers a one-to-one promotion when they come at night. The shop also collects bread ends, and sell these to a fish farm as animal feed.

Ong also gives his surplus buns with fillings and pastries like egg tarts to a friend who works in a factory. This has been going on for 20 years. As he puts it, “His salary is very low. He comes in the early morning and I give him breads that I can’t finish selling. These have fillings. He distributes it to his friends or other workers in the factory. Most of these people are migrant workers, and they have really low salaries. Give to them to eat.”

He prefers to give to migrant workers than the elderly because of a fear of being investigated. He says, “We don’t donate to elderly because we are afraid that their immune system is weaker. If anything happens to them after eating our breads, it’s troublesome. It may not be our fault. Just that on that day, they don’t feel well.”

Ong also expresses a need to understand how a charity works if he were to consider working with them. As he explains, “If we were to cooperate with a charity, it really depends on how they intend to store the bread and how long before they distribute to beneficiaries. It’s best that they have a fridge. Breads with fillings can be stored in a fridge and this way, they last longer and sometimes, taste even better. [...] They have to know how to discern the quality of the bread.”

For now, he prefers to give directly to his friend. “This has been going on for 20 years. It’s based on trust. [...] We will not give foods that are inedible. You have to do business with a conscience.”

The only precaution Ong takes is to verbally remind his friend to finish the breads on the same day. “There is no email or any document. I trust them. I will inform them to finish the breads on that day itself. We are not doing this for money. We just don’t want to waste food. It’s labour and time that went into their making.”

On how the passing of a Good Samaritan law may affect his take on food donation, Ong says, “Of course, if there is such a law, it’s better. I will feel more assured. But I have been giving my unsold breads to my friend and it has been smooth-sailing. Nothing happened. I don’t think it will change how I have been giving.”

Snapshot

Business profile:

- Neighbourhood bakery in west Singapore

Main food items/services:

- Breads without fillings
- Breads with fillings
- Cakes

Source of surplus:

- Unsold breads with fillings
- Bread ends

Main efforts to reduce surplus:

- Having discounts for poorer customers
- Selling bread ends to a fish farm

Donation status:

- Gives to a poorer friend, who in turn redistributes to other migrant workers

Enablers to informal donation:

1. Mutual trust between him and his friend: donation of safe food on the part of the business, and consumption of food within the same day on the part of the recipients
2. Verbal reminders to consume foods on the same day beneficiaries receive them

Barriers to working with charities:

1. Reservations about their storage facilities, distribution time, and ability to discern quality of bread
2. Reservations about giving to elderly beneficiaries because of their weaker immune systems

Overall quote:

- “I trust them (beneficiary).”

3. Jade Bakery / The Play-It-Safe Bakery

Jade Bakery is a neighbourhood bakery at a mature residential estate. They mainly sell hard and soft buns, with fillings like coconut, kaya, egg mayo, and char siew, and pastries like Swiss rolls, tarts and pies. They also have plain bread.

The business opens from 7am and closes at about 8pm. They bake their products daily and their main source of surplus are the unsold products at the end of the day. These are then transported to coffeeshops that sell them till the next morning, or donated to a charity. The bakery itself does not carry overnight products. For coffeeshops that sell these surplus breads, James explicitly told them to throw away any leftover by 10am the next day, even if they look safe for consumption.

It is only recently that Jade Bakery started making regular donations to a charity. Once a week, a woman from the charity will collect surplus bread from the bakery, and distribute these within the night to the elderly in the estate. These beneficiaries are those who are not working and who have no family to support them.

Before James, the owner of Jade Bakery agreed to donate, he had asked the charity questions such as who the beneficiaries are. He then made recommendations on what types of breads would be suitable. He generally donates foods that can be kept for longer or those that have less sugar, such as cranberry and walnuts buns. As James says, "Give them corn bread, banana cake, butter cake... For these, we are sure that if the elderly doesn't finish the next day and leave for another 2 days, they are still edible. They won't turn mouldy. Luncheon meat those types, we will not give. Anything that will turn sour, we won't give. If they cannot finish and keep, and have no fridge, trouble will come."

James also advised the charity on the quantity of bread to give for each elderly person, so that the donated food will likely to be consumed soon. He told the charity to remind the elderly to finish the breads for their breakfast the next day as well. Like he explains, "The buns are all freshly baked, if you can, distribute in not too big quantities, and distribute within the night, and let them finish for breakfast."

He also requested for an email from the charity before working with them, as a way to mitigate any potential liability that may arise. As James says, "The black and white... I requested for it from them (the charity). It's like, maybe the organisation will write say, the food is to be distributed to elderly, don't keep the food etc. It's to certify."

"I need a black and white to save myself," he adds. "I don't want to invite any trouble."

The 'trouble' that James worries about include being investigated by SFA or NEA if cases of poisoning arise, and being advised to spend time and money on upgrading his operations.

Unlike Jade Bakery, not all bakeries in the estate that the charity has approached are willing to donate their surplus. On the reason why, James thinks that it is because of a fear that donation will affect their sales. These bakeries would need to better

understand precisely who the charity is donating to – whether it is to those who really need the food or those who can still make a living.

When asked why his bakery doesn't reduce production instead of having surplus, James says, "As a customer, you want to step into a shop, and it's full of products, you feel attracted then you want to buy. You wouldn't want to go to a shop when there are only a few items left. You will look around. You will think they are overnight items. [...] Definitely, we will have some leftovers. I like to do a lot, to attract people. They are happy to come to my shop to buy."

Snapshot

Business profile:

- Neighbourhood bakery in a mature residential estate

Main food items/services:

- Breads with and without fillings, and plain breads
- Cakes

Source of surplus:

- Unsold breads with fillings
- Makes more breads than can be sold, thinking that a full display will lead to the perception that products are fresh and customers will be more enticed to buy

Main efforts to reduce surplus:

- Selling unsold breads to coffeeshops for cheap on a consignment basis

Donation status:

- Donates to a charity weekly

Barriers to working with charities:

1. Reservations about their storage facilities and distribution time
2. Reservations about giving to elderly beneficiaries because of the perception that they may not have fridges
3. Worries about being investigated by NEA or SFA if cases of poisoning arise, taking up time and money

Enablers to overcome these barriers:

1. An email by the charity to outline how they intend to distribute bread to beneficiaries and to mitigate any potential liability
2. Liaise with charity to recommend what foods would be safer and more suitable for their beneficiaries, when to distribute, and how much to distribute

3. Advise charity to remind beneficiaries to consume breads within their shelf life

Overall quote:

- "I need a black and white to save myself."

4. Baked Goods / The Trusting Bakery Chain

Baked Goods is an artisanal bakery chain, with about 10 outlets in Singapore. They sell different types of breads and pastries such as quiches and pies. Breads have a one-day shelf life, and cakes generally last for about 3 days. Baked Goods has mostly breads, and products such as doughnuts, as surplus, compared to their savoury products, cookies and cakes.

Their edible surplus amount to about 2-3% of their total production every day. Like a lot of bakeries, the chain plans for surplus, especially in the bread category. As owner Stef says, “I try not to run out of products too early. It’s not a good thing to be selling out bread at four o’clock when my shops open till eight o’clock in the evening, so we try to have surplus on purpose. [...] The bread items, [...] actually the cost is not very big. So, we do plan for surplus, particularly in the bread category.”

Some of the bread surplus is used in menu items the next day, such as eggs benedict and crostini. The business also donates its surplus breads. When it was a single shop, they worked with a woman from a church that collected the surplus bread and distributed to poorer beneficiaries. As Baked Goods grew however, it became more practical to work with a bigger charity that has the logistical capabilities to collect surplus from their different outlets. That was when Food Bank entered the picture, collecting breads from their outlets at least 3 times a week.

Coming across as being well-run and credible is one factor that led the business decide to work with Food Bank. As Stef quips, “Their values were important. Not only the values, but their logistics and internal setup was reasonably streamlined.”

Baked Goods is unaware of where their surplus goes to. They also trust the charity to adhere to food safety and quality standards needed in their distribution. “We rely on their standards and their quality systems. And so, I'm not concerned at all, but it's probably something we should be more aware of. [...] Because at the end of the day, it’s still my product, even though it’s going through a second pair of hands.”

The employees of Baked Goods are also allowed to take home leftover bread loaves. Some staff in turn, occasionally redistribute some leftovers to residents in the community. The owner of Baked Goods does not mind this at all.

On how the passing of the Good Samaritan Law may be supported, Stef feels having guidelines on how different edible surplus could be repurposed into new products or reused would help businesses operate more efficiently. As he says, “If there were guidelines that come with your SFA or NEA license... It’s like, if you have this type of waste, what can you do with it? Like, if you got fish heads and guts, this is what you can do with it... I think that would be an immense help. That would stimulate people to actually think about it (surplus), rather than just throw it in the rubbish bin. It’s too easy to throw everything into the rubbish.”

Snapshot

Business profile:

- Artisanal bakery chain, with about 10 outlets in Singapore

Main food items/services:

- Breads
- Pastries
- Cakes

Source of surplus:

- Mainly unsold breads and doughnuts, lesser amounts of cakes, quiches, pies and other savouries
- Planned surplus: makes more breads than can be sold

Effort to reduce surplus:

- Converts some leftover breads into menu items for the next day

Donation status:

- Donates to a charity at least 3 times weekly
- Gives to employees, who may in turn, redistributes to residents in the neighbourhoods

Enablers to donate:

1. Trust the charity because the business believes in their values
2. Trust the charity because the business perceives it as well-run, efficient, and has adequate logistics capability

Suggested enabler for food businesses to donate/reduce waste:

1. More specific guidelines tied to business licenses, that help businesses to think about operating more efficiently

Overall quote:

- “We rely on their (charity’s) standards and their quality systems.”

CASE STUDIES: HOTELS

1. Senses Hotel / The Fear-Liability Hotel

Senses Hotel is a five-star hotel in central Singapore. With the current pandemic situation, the hotel has converted their traditional buffet services into ala carte style. With this change, food waste is lessened, as much of the items are cooked to order and not prepared in bulk beforehand.

The kitchen usually finishes their non-perishables. Dry items last longer, for months, and have a high likelihood of being used. For perishables, the kitchen orders 10-15% of buffer stock to cater for last-minute or unexpected events. When there is no event, such as now, these ingredients are used for staff meals. Slow-moving stocks are in general, converted into “dish of the day” and pushed by wait staff to customers to drive consumption.

Snacks and beverages in hotel rooms, when they approach expiry and are yet untouched, are sent to the kitchen to be turned into dishes. Wine for instance, that is starting to turn sour, is used for cooking.

There are about 200kg of spoiled perishables that ends up as food waste every month. Senses Hotel currently disposes of their food waste through the following methods: a digester, a composter, and working with a community of food scraps collectors.

Instead of a huge array of buffet dishes for their picking, guests who arrive for their morning breakfast are now served a bakery basket, a salad, juice and a plate of fruits. They get to order one main meal per person. There is a small percentage – between 1-2% of the guests – who have expressed dissatisfaction with the change. The hotel expects that with time, there will be a stronger call for buffets to return.

When food was served in buffet style, the kitchen would forecast for guests who have made reservations and expected walk-ins. Edible surplus came in when demand fell short of their expectations. Events may result in surplus food as well. This surplus may then be disposed, or blast chilled for the hotel’s own use.

The hotel has explored donating edible blast chilled cooked food, but has decided against that because of a fear of liability. As Shawn, head chef at Senses Hotel, says, “At present, we do not donate because of liability issues. If out of goodwill, I donate... If anything happens, trace and come back to us, the hotel will ask why we donate. [...] We are a big business. We cannot afford to be linked with a foodborne illness. It would feel like the whole world is collapsing.”

They are also concerned with the capacities of charities to collect, store and distribute blast-chilled cooked food. As Shawn quips, “When you come to collect, what kind of truck are you using? Are you using a chiller truck or just a normal van? Will food be exposed to fluctuating temperatures? [...] The charity also needs to take note of how they collect, store and redistribute.”

Shawn also suggests that charities interested to distribute blast-chilled cooked food can store food samples to protect themselves and hotel donors, but admit this might be a challenging investment for them.

On his views towards the passing of the Good Samaritan Law, Shawn suggests more accountability by only involving hotels that have the ISO 22,000 certification, which attests to them abiding by high food safety standards. Such standards may protect potential hotel donors and beneficiaries, and guidelines such as what items can and cannot be donated, of high- or low-risk, may help the process of donation.

Snapshot

Business profile:

- A 5-star hotel in Singapore managed by an international hospitality company

Main food-related items/services:

- Restaurants

Source of surplus:

- Overproduction at buffets and events (pre-covid), plate waste, spoiled perishables

Main efforts to reduce surplus:

- Surplus food may be blast-chilled and used for staff meals

Donation status:

- Considered donating edible blast-chilled surplus food but decided against that because of fear of liability
- Disposes surplus food by using a digester, a composter, and working with food scraps collectors

Barriers to donate surplus cooked food:

1. Fear of liability

2. Concerns about charities' capabilities to collect, store and distribute blast-chilled cooked food

Suggested enabler to donate:

1. Further assuring beneficiaries and protecting donors by only allowing hotels that have attained the ISO 22,000 certification to donate

2. Having guidelines on items that can be donated and those that can't

Overall quote:

- "We do not donate because of liability issues."

2. State Hotel / The Eco-friendly Hotel

State Hotel is one of the most eco-friendly hotels in Singapore. A 5-star establishment, State Hotel has pioneered sustainable initiatives such as installing a gas-powered plant to provide 30 percent of its electricity needs and introducing plant-based food options in its menus. Other measures include using certified sustainable seafood, sourcing a portion of herbs from its rooftop garden, and replacing plastic bottled water with water in recyclable packaging.

The move to position itself as a hotel with sustainability at its core is in part, a business decision. Like Tristan, the F&B director says, “If you want to stand out in a crowded marketplace and be different, I think you need to go beyond the normal sort of pillars of hospitality. [...] We felt that going down the path of being more sustainable and being more ethical, was a great opportunity that in the short term, can make us more attractive to our customers, but also be a bit more environmentally aware about the impact we have.”

Reduction of food waste is done by working with trusted, sustainable suppliers in a collaborative way. Beside choosing sustainable seafood, State Hotel shows flexibility in the product range they accept. They provide suppliers with guidelines such as the pricing and number of kilograms of fish they need, and then trust suppliers to judge and deliver fish that are in season and in abundance. Unlike some restaurants, the hotel does not limit themselves to specific sizes of seafood only. These seafood are then converted into menu items such as “fish of the day.”

As Tristan quips, “There's a lot of basic fundamentals of going down to a more sustainable business model of engaging with your suppliers, rather than us against them against the customer.”

There are generally four types of food surplus that hotels face: surplus that gets created as chefs prepare food, general waste when items expire or spoil, plate waste by customers, and edible surplus due to overproduction during events and buffets (especially during pre-Covid days).

Before the pandemic, State Hotel donated edible surplus items at its buffet tables, such as fried rice, curry, and noodles. When these items reached the 4-hour safety limit, the hotel immediately put them in the blast chiller, vacuum sealed, and labelled them with information such as date, time, ingredients, and the chefs who blast-chilled them. The organisation Kerbside Gourmet collected the food twice a week, and in a partnership with Southwest Community Development Council, redistributed the food to needy families. About 10 tonnes of edible surplus were repurposed in this manner in 2019, instead of ending up in the landfill.

“For us, it was great, we didn't have to dispose of the food. And for them, they got to eat a nutritious meal, which was great. So, win-win for everyone. We had excess and they had demand,” Tristan adds.

Currently, because of operational changes due to the pandemic, the amount of edible surplus and in turn, donation has dropped.

To minimise their liability, State Hotel requires charities they work with to sign a disclaimer that says they are not held accountable for situations of foodborne illnesses. There has been no negative experience so far. As Tristan says, “We just need to cover ourselves. We are a business. [...] We do ask them to sign a disclaimer.”

Being an ISO 22,000-certified hotel, the hotel adheres to strict food safety standards. They have a Hygiene Manager, and his job scope includes going around collecting samples of food for testing by an independent microbiologist. This is especially so, for events with more than 100 guests. These samples are for documentation, to ensure food is safe. They are also for traceability, if the hotel encounters situations where guests complain about feeling unwell after consuming their food. State Hotel views these safety checks as a way to safeguard their business.

Before the pandemic, the hotel also worked with local start-up Treatsure, to allow diners to take away buffet items at \$10 per box, during the last hour of their restaurants’ meal times. Food waste that cannot be repurposed generally goes to the hotel’s digester.

Snapshot

Business profile:

- 5-star hotel in central Singapore, managed by international hospitality company

Main food-related items/services:

- Restaurants

Source of surplus:

- Overproduction at buffets and events (pre-covid), plate waste, spoiled perishables, surplus that is created during food preparation

Main efforts to reduce surplus:

- Works collaboratively with trusted suppliers to get seafoods that are sustainable and in season, and shows flexibility such as willing to accept different sizes
- Partners with Treatsure to reduce surplus at buffet tables

Donation status:

- Donates edible surplus food, including blast-chilled ones, to an organisation that collects them twice a week and redistributes them to needy families
- Liability agreement signed before food donation takes place
- Surplus that cannot be repurposed goes to a digester

Overall quote:

- “There's a lot of basic fundamentals of going down to a more sustainable business model of engaging with your suppliers, rather than us against them against the customer.”

3. Jazz Hotel / The Call-for-More-Guidelines Hotel

Jazz Hotel is a 5-star hotel group, with sustainability goals such as halving its environmental footprint by 2030. The hotel group is keen to halve the amount of food waste it sends to landfills by 2030, and intends to achieve that in 2 ways: reducing excess production and working with organisations to donate surplus edible food, converting food waste into animal feed, and composting.

During pre-Covid days, Jazz Hotel in Singapore generated most surplus food at buffets and events. The surplus food at buffets, together with plate waste produced when consumers took more than they could eat, were simply disposed. Surplus cooked food at buffet trays were deemed to be unsafe to be consumed and not donated. An average of 400-500 tonnes of food waste was produced monthly.

While the establishment does not serve buffet-style meals currently due to Covid-19 restrictions, they expect the dining concept to return, as they are seeing more requests from guests.

Before the pandemic sets in, Jazz Hotel was in talks with Project Chulia Street to blast-chill some food items from their buffet tables and redistribute them to migrant workers. It was the ground-up initiative that requested for them to blast-chill the items before donation could take place. Talks ceased however. As Sharon, a manager for corporate responsibility in APAC, explains, "Covid came really quickly after discussions. I think logistically it's going to be really difficult for them to get food in for migrant workers, who were their primary beneficiaries, so that kind of caused a pause for that."

The hotel group has recently drawn up a donation guide for their properties in the region as well. The guide outlines possible partners their properties in each country could work with, and makes known whether there is a Good Samaritan Law in different countries, and if not, agreements that are needed to be worked out and signed with partners before food donation is possible.

According to Sharon, countries with a Good Samaritan Law encounter most ease when donating food to charities. Like she says, "That's where we have a really nice template for our hotels, that our legal team has vetted and are comfortable about. And our chefs have gone to their (charities') kitchens to see how they operate and distribute food, and they feel comfortable as well. In turn, the partner also comes by our hotel to provide training for food they would accept and what the process should be."

As Benson, the director of food and beverages operations in Southeast Asia, says about the importance of minimising liability for their business, "We represent 6000 hotels when we're dealing with one property, so the risk is huge compared to a small operation. We need to make sure there are very strict guidelines being put in place by local authorities, NEA being in Singapore. Then obviously, that'll help to indemnify the properties when they are donating."

According to Benson, these include storage conditions of donated food, such as temperature range and time limit in which they are stored.

Consumer demand for 5-star hotels to have all-you-can-eat buffets creates pressure on establishments to compete to provide that. As Benson says, “They (tourists) might stay in Malaysia today, and Singapore tomorrow, and Thailand the day after... Obviously not now, but in the past. Their expectations would be that if they get that sort of opulence from one hotel, they’re going to expect to get it in the other, right? [...] It’s tough to drive change across multiple borders. It’s definitely not an easy one. Especially when you work in an industry where the guest is always right.”

Snapshot

Business profile:

- Multinational hospitality company that manages a broad portfolio, including a 5-star hotel in central Singapore

Main food-related items/services:

- Restaurants

Source of surplus:

- Overproduction at buffets and events (pre-covid), plate waste, spoiled perishables
- About 400-500 tonnes of food waste generated a month, in pre-Covid days

Main effort to reduce surplus:

- Hotel group has drawn up a regional guide for possible partnerships to reduce and repurpose food surplus, whether through donation or composting

Donation status:

- Exploring the possibility of donating blast-chilled cooked food to a charity
- Unaware of Treatsure, and unsure if people coming to takeaway buffet food for low prices will convey a positive brand image

Enabler to donate:

1. Aims to halve the amount of food waste it has by 2030

Barriers to donate surplus cooked food:

1. Fear of liability
2. Prefers having more specific guidelines on food donation by NEA, such as storage conditions

Suggested enabler to donate:

1. Having a Good Samaritan Law and working with partners to better understand what the donation process should be

Overall quote:

- “We need to make sure there are very strict guidelines being put in place by local authorities, NEA being in Singapore. Then obviously, that’ll help to indemnify the properties when they are donating.”

CASE STUDIES: COFFEESHOPS

1. Orchid Coffee House / The Apprehensive Coffeeshop

Orchid Coffee House is a coffeeshop at the outskirts of central Singapore. It's frequented by residents of terrace houses and workers from industrial buildings nearby.

The coffeeshop is leased to the owner of the drinks stall, Dan. He in turn, sublets individual stalls to other food tenants, who sell items from economical rice to Malay food. As the owner of the drinks stall, he and his employees also sell small food items such as packets of buns, toast and eggs, and dim sum such as yam cake.

Dan does not have surplus for dim sum, eggs, and drinks. The surplus that he has are the packs of buns that he displays at the front of his stall. He gets these from a supplier and their expiry dates are clearly indicated on the packaging. On occasions where the buns are expiring and are yet unsold, he will either throw them away or give them to his staff or to migrant workers who he knows and who work nearby. Dan may also return them to his supplier, who redistributes to other migrant workers.

He only gives the expiring buns to migrant workers he knows. They started off as regular patrons of his stall, and occasionally, there are exchanges of favours. For instance, they may help him to fix small electrical problems at the coffeeshop for free. Such interactions breed familiarity and trust, facilitating donation.

On why he is not donating to other migrant workers or other needy groups for instance, Dan explains that it is to protect his stall's reputation. As he says, "I don't know if they will consume it or give to another person. I worry if they come back and say I sell expired breads. [...] Of course, I worry about reputation if anyone complains."

To ensure that donation of surplus buns is carried out safely, Dan verbally reminds the migrant workers he gives to, of their expiry dates. As he puts it, "Normally I tell them, 'This is expiring today. You still can eat it. After tomorrow, don't eat.' I give to those I know. I try not to give to those who I don't know."

As a subletter, Dan places no restrictions on whether his tenants are able to donate food or not. One of his tenants – a Malay food stall – for instance, sometimes give away unsold cooked food at the end of the day to regular customers. Like Dan, that stall only donates to people they are acquainted with, who they consider "family."

Dan however, worries that if tenants get complaints about their food donations and are ordered to shut doors for a period of time, it may affect his business revenue.

For Dan, having the Good Samaritan law will give him more assurance about food donation. After all, he has once thrown away 40-50 breads because he was unsure if potential beneficiaries will keep them for longer than desired. As he says, "I was

worried if they (workers) will keep for another 2 days... I don't know if they will eat or keep them. Eventually I decided to give it back to supplier or throw away."

"I think it's a good thing. If I just throw food away, it's a waste. If the Good Samaritan Law comes to pass, it's a plus to be protected," Dan adds.

Snapshot

Business profile:

- Drink stall and coffeeshop in a private residential estate and industrial area

Main food items/services:

- Drinks
- Dim sum, eggs and toast
- Packs of buns

Source of surplus:

- Buns

Donation status:

- Donates to migrant workers
- Gives to his staff if they want them
- Throws away or returns them to supplier

Barriers to donations:

1. Reservations about whether potential beneficiaries will store the buns for longer than desired
2. Fear of reputation damage if beneficiaries complain about the bread and word spreads

Enablers to donate:

1. Trust between migrant workers and him – only donates to migrant workers he knows
2. Verbal reminders to beneficiaries to consume donated food before they expire

Overall quote:

- "If the Good Samaritan Law comes to pass, it's a plus to be protected."

2. Shun Shun / The Do-Business-With-Conscience Teochew Porridge Stall

Shun Shun is a Teochew porridge and rice stall situated in a row of shophouses along a busy main road. The family business has been around for more than 30 years, and most of their customers work at an industrial area nearby. They sell a variety of dishes such as steamed fish, minced pork, ota, and different types of vegetables, to go with Teochew porridge or rice. They also sell drinks like homemade barley, which is freshly made daily.

The stall has a kitchen at the back, and its staff cooks at regular intervals throughout the day. Shun Shun closes shop at 9pm and may have unsold surplus at the end of the day. To reduce surplus, they stop cooking by a certain hour and give more food to customers as closing time draws near. Leftover foods are then either eaten by the staff themselves or thrown away. Leftover homemade barley is either distributed to employees of neighbouring food stalls or thrown away. The stall does not donate their unsold surplus cooked foods.

The business prides itself on serving fresh food. Beside the consideration of food safety, one other reason for not donating their unsold surplus is also the perception that leftovers are undesirable. As Meiling, the owner, says, "It's not good to give leftovers to others. That's like giving them rubbish. If you want to treat other people, treat them good food. I don't mind cooking fresh food."

She adds, "Otherwise, I can't get over my own conscience. When you do business, you have to do it with conscience."

Another reason behind not donating surplus food is related to distribution. As she says, "How to distribute to others? If we ask someone to come collect, say, a food delivery guy, it's wasting his labour because there is not much surplus and we will feel embarrassed for him to do that."

Instead of throwing surplus foods away, Meiling is comfortable however, with her employees having the leftovers as she is certain they are aware of food safety guidelines and will consume them on the night itself. She may also take some of the surplus back as supper for her own children.

Snapshot

Business profile:

- A family rice and porridge stall located near an industrial area

Main food items/services:

- Variety of meat and vegetable dishes
- Drinks such as homemade barley

Source of surplus:

- Leftover unsold meat and vegetable dishes

- Leftover homemade barley

Main efforts to reduce surplus:

- Stops cooking by a certain time
- Giving more food to customers who come close to the end of the workday

Donation status:

- Does not donate
- Staff may eat the leftovers themselves or throw them away

Barriers to donate:

1. Perception that leftover cooked food is undesirable for donation

2. Difficulty with distribution: who to donate, distribution and consumption within the 4-hour cooked food safety limit, and amount of surplus food may not be worth the effort required for distribution

Overall quote:

- "It's not good to give leftovers to others. That's like giving them rubbish. If you want to treat other people, treat them good food."

3. Food Nation / The Hands-Off-But-Watchful Coffeeshop Operator

Food Nation has more than 50 coffeeshops and food courts in both residential areas and shopping malls across Singapore. They are one of the leading food court operators on the island.

Except for the drinks and dessert stalls, Food Nation leases out all other stalls to individual tenants. Stalls have to submit their menus and prices to them for approval, and abide by rules such as certain operating hours. Food Nation monitors the hygiene of their tenants too, such as ensuring premises are rodents-free. This is the typical business model for major food court operators in Singapore.

Food Nation claims to have little surplus for their drinks and dessert stalls. Each stall manages their own inventory of items such as bread and desserts. Items like toasts and cold desserts are made upon order and thus there is not much surplus for those. Ingredients for cold desserts are from cans and can be kept for longer too. For hot desserts such as red bean soup and green bean soup, while these are premade, staff cease preparing them by 5 or 6 pm to reduce surplus. Each stall usually has none or a few pieces of dim sum left by the end of the day.

Food Nation is willing to freshly prepare food items such as toast to donate to charity organisations, but expresses reluctance to donate their surplus. Beside citing the 4-hour safety limit for cooked food, there is also the perception that leftover food is undesirable. Like Harry, Head of Operations at Food Nation, says, "What's good about leftovers? If you want to treat people, treat them good food!"

"I don't think it's good to donate surplus foods, like cai peng (economical rice). I saw a stall before, throw all the leftovers together into one big tub. They have some little food left after closing, so they pass it to the cleaner," Harry speaks about his experience of seeing one of his tenants donate food. "That's like feeding animals."

In general, tenants of Food Nation that prepare food to order have no or lesser surplus daily than stalls that prepare food in advance, such as economical rice stalls. While the operator does not place restrictions on the donation efforts of its tenants if they have surplus, they worry about being implicated if cases of food poisoning arise. As Harry puts it, "They (tenants) have to be cautious. I don't want my tenants to donate and someone gets poisoning and then say the food comes from us. Then it's a problem. And we reserve the right to pursue the case."

Snapshot

Business profile:

- A leading coffeeshop and food court operator, with more than 50 outlets across Singapore

Main food items/services:

- Leases out individual stalls

- Operates the drinks and dessert stalls

Source of surplus:

- Little surplus from dim sum and hot desserts

Main efforts to reduce surplus:

- Stops cooking by a certain time

Donation status:

- Does not donate
- Does not place any restriction on tenants if they donate surplus food, but worries about their own reputation if situations of food poisoning occur

Barriers to donate:

1. Perception that leftover food is undesirable for donation

Overall quote:

- "I don't want my tenants to donate and someone gets poisoning, and then say the food comes from us. Then it's a problem."

CASE STUDIES: RESTAURANTS

1. Crazy Toast / The Efficiently-Run Mall Café

Crazy Toast is a chain of cafes throughout the island. While their main products are toasts, soft-boiled eggs, and beverages like coffee and tea, the business also sell foods such as laksa, nasi lemak, mee siam and mee rebus. Their cafes are usually located at shopping malls.

According to their marketing director Joe, the company generates a lot more inedible food waste than edible waste. Inedible food waste, to them, are egg shells, coffee grounds, tea grounds, and bread ends. Each outlet disposes of such waste at the shopping mall they are in. Crazy Toast has about 70 outlets and on average, 10kg of such waste daily.

The company is happy to give away these inedible food waste for uses such as composting, but have not found any individual or organisation that finds collecting them financially feasible yet.

Crazy Toast has little edible food surplus otherwise. Fresh produce such as tomatoes, carrots, and cucumbers arrive and are stored at each outlet every two days. Noodles can be kept for longer. Food items such as chicken wings are fried only when there are orders. Kaya lasts for several months. Hardly any of these are thrown away.

Staff at Crazy Toast's outlets also adopt a cautious attitude when forecasting. They may give more servings of food to customers who arrive later in the day so as to reduce surplus too. As Joe says, "My staff are also very good at saving cost. It's not uncommon that for items that take time to prepare, say laksa, around say, 8pm, sold out means sold out. They won't make a new batch."

It is likely that edible surplus food at the end of the day will be eggs. Eggs are pre-cooked. To reduce surplus, staff at each outlet gauge the flow of customers and cook less eggs as closing hour draws near. They may only boil just 3-5 pieces for instance, with 1-2 eggs as leftovers by the time they close shop. There are also incidents where customers forget to collect their takeaway beverages after ordering.

These surplus foods are either thrown away or distributed to staff of shopping malls, such as security guards or workers of neighbouring food stalls. Staff of Crazy Toast also receive surplus foods from staff of other food stalls. There is generally no worry about giving or taking such gifts of surplus food.

In general, being efficient in managing food surplus is an important priority for businesses. As Joe puts it, "Inherently, food cost is your profit also. Even if food cost increase by 1%, that's actually your profit margin. If you minimise your food waste, that's your profit margin. There's an inherent impetus by business to reduce food cost. It goes straight into your profit margin if you can manage your food cost. There's a very direct correlation."

In his view, tax incentives may encourage businesses to donate. The fear of reputation damage for brands despite the Good Samaritan Law coming to pass may persist however. As he says, “Social media is more powerful than law sometimes. It just takes one guy to post... Don’t care the law protects you, the reputation risk is much more of concern.”

Joe calls for other ways of providing for food-insecure families instead of giving them surplus foods as well. Like he puts it, “I think Singapore manages its food waste quite well. It is not rampant. There are families who are hungry, and we can solve that in other ways.”

Snapshot

Business profile:

- Operates a chain of about 70 cafes across Singapore

Main food items/services:

- Toasts, noodle and rice mains, and beverages such as coffee and tea

Source of surplus:

- Egg shells, coffee grounds, tea grounds, and bread ends
- Cooked eggs, takeaway beverages at the end of the day

Main efforts to reduce surplus:

- Stops cooking or cook less by a certain hour
- Willing to sell out food items

Donation status:

- Dispose egg shells, coffee and tea grounds, and bread ends at malls
- Disposes or gives surplus eggs and beverages to other workers and tenants at malls

Barriers to donate:

1. Little edible surplus foods except bread ends

Suggested enablers to donate:

1. Think tax incentives may encourage other businesses to donate, but calls for other ways to provide for poorer beneficiaries as well

Suggested obstacle to donate:

1. Fear of reputation damage through social media despite passing of Good Samaritan Law

Overall quote:

- “If you minimise your food waste, that’s your profit margin.”

2. Soul / The Buffer-for-Slightly-More Restaurant

Soul is a trendy upmarket restaurant in central Singapore. A meal at that eatery may cost around \$60-70 per pax, inclusive of drinks. Before the pandemic, it is not uncommon to see the restaurant booked for events by banks, government agencies, and investment companies, or by individuals for weddings on weekends.

The restaurant liaises with wholesalers and suppliers for their ingredients. Delivery for their ingredients typically takes place twice a week. This, plus the fact that Soul has limited storage space and that restaurants in general attract pests, push their staff not to order too much at one go to minimise surplus and loss.

Once ingredients arrive at Soul, kitchen staff begin preparing them for storage. Some herbs like chives and spring onions for instance, are washed, plucked, or sliced, and kept in the fridge to be used within two days. Meats such as chicken and beef are trimmed to size, seasoned, portioned and stored, according to different dishes on the menu and their forecasted order quantities.

Food surplus usually occurs when actual demand for particular dishes falls short of forecasted quantities. As Mark, general manager of Soul, explains, “If it’s a high demand dish, you prepare for maybe 20 portions a day, and maybe two- or three-days’ worth at a time. And maybe that day, it rains, and we have fewer than expected customers. Maybe only 10 customers order that dish. So you have 10 extra portions, right? If you don’t sell them by second day, there’s very little chance of it getting sold already, and they have to go into the bin.”

Processed raw food in the fridge is considered unfit for consumption by the end of third day, because of food safety reasons. They are hence, discarded.

“All restaurants would want to operate a super tight ship in terms of wastage. As much as possible, forecasting is super tight,” Mark quips. “Wastage affects the bottom line. The head chef does do his own charting to understand what is the amount of food sales and where are our food costs. It must be in proportion.”

When forecasting, the impetus to reduce wastage is weighed against the aspiration to provide customers with choice. As Mark explains, “You always want to give people the option that they can order anything they want. So, it ends up yes, I have to prepare a little bit more. And which means, I run the risk of that being wastage.”

While Soul buffers for more food when forecasting, they attempt to drive consumption when certain foods are not selling fast. Vegetables are pickled to last longer, for instance. Another way is by having ‘specials’ on their menu. Staff are regularly briefed on what foods are slow-moving and converted into new items. They then adopt strategies such as recommending customers to choose these when ordering.

Occasionally, staff may also cook surplus foods to eat together at the restaurant itself. No employee is allowed to take uncooked surplus food home, as the management is worried that such behaviour may encourage overordering and pilferage.

For events that Soul hosted before the pandemic, the restaurant typically discouraged overordering. Family guests of weddings usually take leftovers home.

Soul expresses an openness to cooking surplus and donating them but cites a number of concerns. First, they have to get buy-in from their kitchen staff to put in extra work time. Their willingness would affect the quality of donated cooked food, which in turn, affect their brand reputation.

Second, there is the issue of logistics. As Mark says, “Where would I send this food to? Or who is going to come? Is food going to be transported in a food-safe manner?”

He desires assurance that donated cooked food would reach potential beneficiaries quickly and in good condition, for food safety reasons and to protect the brand. Like he says, “Any food that's been sitting in a vehicle for say, an hour and a half, you can imagine it's not great quality already, let alone someone who is potentially, out of goodwill, going to multiple restaurants and picking up food.”

On what might encourage restaurants to donate, Mark suggests having tax incentives or cuts to the licensing fees of restaurants.

Snapshot

Business profile:

- Popular restaurant in central Singapore

Main food items/services:

- Middle-eastern fare and drinks

Source of surplus:

- Unsold food when demand falls short of forecasted quantities

Main efforts to reduce surplus:

- Converting surplus into new items: pickled dishes and ‘specials’
- Staff occasionally cooks and eats together at the end of week

Donation status:

- Does not regular donate, typically disposes of surplus unsold food

Barriers to donate:

1. Need buy-in from staff to put in more work time
2. Logistics of donation: method and time in which cooked food will reach beneficiary

Suggested enabler to donate:

1. Tax incentives and cuts to licensing fees may encourage businesses to donate

Overall quote:

- “You always want to give people the option that they can order anything they want. So, it ends up yes, I have to prepare a little bit more.”

CASE STUDIES: CENTRAL KITCHENS

1. Longevity Kitchen / The Cautious Economical Rice Central Kitchen

Longevity Kitchen has a number of different brands, but mainly runs a chain of economical rice stalls at various coffeeshops in Singapore.

Every day, a company in Johor Bahru will cut various types of vegetables and pack them in 2.5kg or 3kg bags. They also cook sauces and gravies, which are then packed in 1kg bags. These vegetables, sauces and gravies will then be delivered to Longevity Kitchen's economical rice outlets, according to their orders.

Longevity Kitchen also has a central kitchen in Singapore. In this central kitchen, raw meats are usually kept frozen until when needed. Employees help to defrost meats and prepare semi-finished products. They cut, marinate, and pack meats into 2 and 3kg bags before delivering to the outlets daily.

At the economical rice stalls, staff will prepare for lunch hour from 9am to about 1130am. They cook and display various dishes for customers to choose from. They try to sell what is on display before new dishes are to be brought out. The head chef of each stall will ascertain when to prepare new dishes according to how the business is doing. Generally, in line with NEA's guidelines, if there are dishes that haven't been sold but have been displayed for more than 4 hours, the stalls will throw them away.

The staff at each outlet generally stops cooking by 730pm, to reduce surplus. 95% of the time, there will be no leftover meat. But on occasions when there are leftover meats, they may be used to make stew (cai hui) the next day. Surplus usually comprises various vegetables and tofu.

When there is unsold surplus at the end of the day, staff may eat it themselves. Longevity Kitchen allows staff to eat it at their workplace or bring back for their personal consumption. For food safety reasons, they are prohibited from packing the surplus for anyone else. If employees do not take the surplus, it will be thrown away.

Leftovers at each stall, according to manager James, account for less than 10% of the total amount of cooked food.

While Longevity Kitchen does not donate their unsold food, they occasionally sponsor meals for beneficiaries. Food would be freshly cooked, packed in boxes and delivered to charity organisations, with a 'consume-before time' sticker on each box.

On whether the Good Samaritan Law will affect their current operations, James replies, "We have to heed the NEA guideline of 4 hours. We have to dispose of our cooked food then. When it comes to donating unsold products, we feel that our foods are not so suitable, because their lifespan is too short. If we donate our unsold food and it takes some time to reach the beneficiaries, the food may turn bad. That's why we wouldn't suggest donating our unsold dishes, to prevent food poisoning."

Snapshot

Business profile:

- Operates a chain of economical rice stalls across Singapore

Main food items/services:

- Economical rice

Source of surplus:

- Unsold food after 4 hours of display and at the end of the workday

Main efforts to reduce surplus:

- Only bring out new dishes when old ones sell out
- Stop cooking by a certain hour

Donation status:

- Does not donate, in light of the 4-hour food safety limit
- Employees may consume unsold surplus food
- Throws away unsold surplus food

Limitations to donate:

1. There is a 4-hour safety limit between the time food is cooked and the time it reaches beneficiary for consumption

Overall quote:

- “If we donate our unsold (cooked) food and it takes some time to reach the beneficiaries, the food may turn bad.”

2. Cosy Kitchen / The Where-is-the-Need Caterer

Cosy Kitchen is one of Singapore's biggest catering companies. They source their supplies from both locally and overseas. The reason behind their decision to buy local is an environmental and not a financial one, as locally-sourced foods are often more expensive than imported ones. As Jensen, managing director of Cosy Kitchen says, "A lot of businesses I know are not even bothering about environmental sustainability, because to them, business cannot even sustain."

Orders to the Cosy Kitchen are closed two days before an event. This helps the business to forecast more accurately the amount of ingredients needed for production, order what is needed, and prepare for the event.

Approximately less than 10kg of edible surplus may be generated daily. Staff will eat these as their meals. There is a close watch on inventory management system, such as what foods may be expiring, so as to reduce surplus and minimise loss. As Jensen quips, "Why I ask them to document (surplus) is because I want to keep an eye on the operations. So I know they won't anyhow cook then waste, because that is cost to my business. And every day, the chef will make a decision on how much more to cook for staff meals, so actually, there is close to no waste."

Cosy Kitchen does not give surplus edible food besides giving it to their staff, citing the 4-hour safety limit for cooked food as the reason. They are located in an industrial estate.

When orders reach customers on the day of their event, surplus foods may occur when consumers have overordered. Caterers in general may tell customers to consume the cooked food by a certain time, and some may advise against packing leftover food, for safety reasons. As Lina, a director at another catering company, explains, "To a common man, it's to reduce food waste. To a caterer, if other people come in (to the event), pack food home, don't warm up the food properly, and get food poisoning, they will point fingers at the caterer. So, there are caterers that deter that kind of behaviour."

Cosy Kitchen has shown interest in donating freshly cooked food to potential beneficiaries in west Singapore, but was informed by a MP that there is no need to. As Jensen explains, "What we do best is in processing cooked food and distributing that, like a soup kitchen. But from what I understand, there is no real need now. There is no lack of choice, so actually, they (beneficiaries) throw a lot of food away. There may be two or three groups giving to them, so the challenge is that, there is no central coordination. Every soup kitchen, whether it's temples, churches, or VWOs like Willing Hearts... It's not coordinated."

"Individual soup kitchens may not have a clear idea of who is covering what and what the actual need is," he adds.

Better coordination between charities and better understanding of beneficiaries and their food needs will cut surplus. As Jensen says, "If you want to donate, you need

to know where the need is. And how to donate? What to donate? [...] There could be areas where cooked food is needed rather than non-perishables. A better understanding of where the real needs are, is needed, so that there is less waste. Because the stupidest thing will be if we oversupply where there is no need.”

Such coordination could extend beyond charities to other stakeholders in the food industry, such as food delivery companies and food rescuers. Jensen suggests this could be done via a digital platform such as a mobile application, to improve the matching of supply and demand of food needs, and the logistics needed.

Cosy Kitchen has also been involved with various charity events, such as by sponsoring cooked food at migrant workers events, and Feeding the 5000 festival.

Snapshot

Business profile:

- Leading caterer in Singapore

Main food items/services:

- A variety of cuisines and bento sets

Sources of surplus:

- Edible surplus generated in the preparation of orders
- Overordering by customers

Main efforts to reduce surplus:

- Employees may eat the surplus
- In cases of event cancellations, food may become staff meals for some caterers
- Some caterers advise customers on the adequate amount to order

Donation status:

- Does not donate, in light of the 4-hour food safety limit

Limitation to donate surplus cooked food:

1. There is a 4-hour safety limit between the time food is cooked and the time it reaches beneficiary for consumption

Enabler to donate freshly cooked food:

1. Desire to contribute as a soup kitchen in a more coordinated fashion with different stakeholders in the industry, from suppliers to delivery companies

Obstacle to donate freshly cooked food:

1. Perceived lack of coordination between charities: the area the caterer is based in is already served by other soup kitchens and they are unaware of where the need is

Overall quote:

- “A better understanding of where the real needs are, is needed, so that there is less waste.”

CASE STUDIES: RETAILERS

1. Sky Mart / The Want-to-Donate Online Retailer

Sky Mart is a food delivery company that entered the online retail space a few years ago. The company has over more than 10,000 restaurants on their food delivery platform, and more than 13,000 riders as their employees. On their mobile application, a consumer is not only able to order food delivery, but purchase groceries as well.

To ensure speedy delivery, the business has close to 10 warehouses across the island, with stocks from various retailers such as Cheers, Mark's and Spencer's, and 7-11. They stock goods like cereals, cakes, breads, biscuits, sauces, drinks, canned products, and fruits. Sky Mart buys these stocks from various suppliers and sends them out for delivery from their warehouses whenever there are orders.

Stocks at the warehouses are checked daily, and warehouse managers are notified every day which goods are expiring. When goods reach their expiry dates and are still not sold, they will be removed and disposed of for food safety reasons. These are usually perishables.

Because of their limited warehouse space, it is not only perishables that may be removed. Unpopular food items that have a longer shelf life may be removed as well, to make space for other items, such as new product releases.

Sky Mart is willing to donate edible surplus food items that have to be removed from their warehouses, but have not thoroughly explored that option yet. There are a number of concerns on their mind when it comes to food donation however.

First, there is worry about liability. As Wan, a manager at Sky Mart asks, "If the end user receives something and becomes sick or unwell, what is the likelihood that we would be sued? [...] When we talk about liability, of course we want to do good, but we don't want to do good at the risk of being punished."

Second, the company claims that it does not currently have the manpower to sort through removed products, to see which are still edible and suitable for donation. Like Wan says, "We want to do good, but we are wary of being caught in a resource-intensive activity. We don't have the manpower to sort through 100kg of food and groceries and inspect them for donation. It's how and who will do the validation of certifying them safe for consumption. If it's done by a third party, the liability on us will decrease."

Third, Sky Mart questions how donation can be carried out. While they have the logistics capability to deliver donations to individual beneficiaries, they are reluctant to bear the cost of delivery. If it is a one-off donation programme, the business is willing to devote more resources to it as well, compared to a recurring effort.

“We are open to looking at ways to be more sustainable,” Wan adds. “If these obstacles are removed or navigated, it will incentivise management and other departments to be good Samaritans.”

Besides the above-mentioned concerns, Sky Mart also thinks that having tax incentives for donation would encourage businesses like them to donate.

As Wan says, “All these goods supplied by our platform have been purchased. We purchased them, and if they are not sold, we bear the costs of having been purchased those goods. Now, if we donate to a good cause, and we are not asking for us to be paid, but if charitable donations can offset income tax to a certain amount, I think this would greatly incentivise charitable activities.”

Snapshot

Business profile:

- Food delivery platform, with an extensive logistics fleet and an online retail store

Main food items/services:

- Groceries stocked at warehouses

Source of surplus:

- Expired perishables
- Unpopular and expiring non-perishables

Donation status:

- Does not donate, but open to doing so

Barriers to donate:

1. Fear of liability
2. Shortage of manpower to sort warehouse excess
3. Uncertain of how to carry out donation: cost of logistics and to which beneficiary

Suggested enabler to donate:

1. Feels that having tax deductions will encourage businesses to donate

Overall quote:

- “We want to do good, but we don’t want to do good at the risk of being punished.”

2. Care Supermarket / The Sell-Till-We-Can't Supermarket

Care Supermarket is one of Singapore's top supermarket chains. The major food segments they handle are ambient products, and fresh produce.

In terms of their operations for ambient products, the supermarket chain works with key distributors in Singapore. Their trading terms are based on a returnable basis. If products can't be sold and have less than 1-3 months of shelf life left, the chain returns them to distributors. As Hui En, a director at Care Supermarket explains, "Everything is given back to suppliers before the food expires. What they do with it is a black hole. I tried to find out, but it was difficult to get answers."

Care Supermarket also has its own house brands when it comes to ambient products. These OEM products are owned by the supermarket itself and when surplus occurs, they cannot be returned to manufacturers.

For fresh products, Care Supermarket buys from local wholesalers that import fruits and vegetables to Singapore. Such arrangements are not based on a returnable basis.

The supermarket chain also imports fresh produce directly from overseas suppliers, instead of buying through local wholesalers. This gives them greater visibility and control over the handling of produce, so as to maximise the time produce can be on their shelves. As Hui En explains, "When we work with local importers and distributors, we have no visibility of how long the food has been sitting in their cold room. [...] When we go as direct as possible, we gain visibility. I know exactly when the apples have been packed, and I know how long they have been sitting in the cold room, and I know what to do to maintain the freshness."

The bulk of food waste that the supermarket has comes from fresh produce. Like Hui En says, "These fruits and vegetables are still alive on our shelves, and as hours pass, the produce is going to deteriorate. This is the bulk of where our food waste really comes from. We cannot return to suppliers, so we will have waste."

Once fruits and vegetables are displayed on shelves instead of being kept in chillers, the cold chain in which they are stored gets broken and their deterioration is hastened. Not every supermarket chain has the resources to have chillers in all their outlets. Care Supermarket mainly stores fresh produce in their central warehouse and deliver them multiple times a day to their outlets, to keep them for longer.

Besides unsold fresh produce, Care Supermarket also encounters accidents where there are issues with imported produce upon arrival. Such accidents happen on an average of once a year. Bananas for instance may arrive ripe instead of green, leaving the supermarket insufficient time to sell them and unaware of which charity is able to distribute them in time. As Hui En quips, "If the bananas haven't softened, you have 1 day to get it out. You are talking about 1080 cartons, and each carton is 100 pieces of bananas. We can donate these... I tried once, with about 100 cartons of bananas. I approached an NGO and asked them to take them today, because by tomorrow they are very, very yellow. They never reply."

Besides the short time for such edible surplus to be donated safely, some overseas exporters place limitations on donating them as well. In order for the supermarket to claim for loss of goods, the exporters may require them to dispose of the products and submit a weigh ticket. As Hui En says, “The ugly truth is, when such things happen, when it involves the entire cargo, the overseas exporters don’t want you to sell or salvage it in a way, if it’s determined that it’s not suitable for supermarkets to retail. They prefer that, because everything has to be accounted for.”

“Our hands are tied. I know it can be donated but I cannot do it, because the exporter wants full compliance to the way we dispose or treat his food,” she adds.

One measure to cut down surplus of fresh produce include slashing their prices or having a reduced-to-clear section at stores. Some surplus fruits may also in turn, be processed into cut fruits and sold at higher prices. Other produce may be displayed till they rot and as such, deemed unsafe for consumption and disposed of.

Having a reduced-to-clear section and promotions to clear stock is a business attempt to generate profits. Donating is not priority, as it doesn’t produce earnings. As Hui En says, “The only time I throw, is when that piece of fruit cannot be eaten anymore. It’s not going to be safe. The moment I decide to donate, for me it’s zero value. I’ve lost my chance to get someone to buy it at a lower price.”

“Businesses are looking for the next best value. Donation will not come straight to our mind,” she says. “Businesses want to avoid donation as much as they can, not because they don’t want to help but because the food produce is cost to them.”

Produce at the reduced-to-clear section may also be transported back to their central kitchen to be transformed into staff meals. The same goes for expiring OEM products.

In general, Care Supermarket minimises waste by having a good inventory management system. As Hui En says, “A lot of retailers work on just-in-time delivery. We don’t hold a lot of inventory just because we think someone is going to sweep off a lot of goods. A lot of NGOs have that in mind – that we are overbuying, but we are actually not.”

“I don’t want to overbuy or underbuy. It’s a science and art to perfect that.”

Care Supermarket spoke of being involved in two donation attempts. They have a supplier who supplies them red bean buns and will collect back unsold ones every morning. An NGO once approached Care Supermarket for these unsold buns, and with that in mind, Care Supermarket asked the supplier if the supermarket could collect and donate these. The supplier agreed, but after some time, requested to stop the donation, citing suspicion of the charity reselling their bread. Care Supermarket offered to put a mark on the packaging of the bread, but the supplier declined.

Hui En also reveals that concern about brand image could be a reason behind some suppliers preferring not to donate as well. As she puts it, “It’s like every day, there’s surplus. Is it nobody wants to buy? I know some brands may be concerned.”

The other donation attempt involved the community court. The institution has set up a food bank to provide food for foreign workers who are unable to work and have no income. A director at Care Supermarket worked with the charity Food Bank to provide fresh foods for these needy, by buying reduced-to-clear products from Care Supermarket and stocking them at a small fridge at the community court. The fresh foods at the fridge get cleared by the foreign workers and cleaners there every day.

On if the passing of the Good Samaritan Law will affect Care Supermarket’s take on donation, Hui En comments, “For our context, it is not that relevant. But any kind of protection is always better than having none. So, I am sure, in a way, donors will have more confidence when they donate.”

She stresses the importance of food businesses operating with a conscience, more than having the law itself. As she puts it, “When we deal with food, it’s all about having a conscience. Whether we are selling or donating it, we want to make sure the food is safe for the person taking it.”

Snapshot

Business profile:

- Major supermarket chain

Main food items/services:

- Ambient products and fresh produce

Source of surplus:

- Ambient products with less than 1-3 months of shelf life
- Unsold fresh produce: surplus at outlets and issues with products on arrival

Main efforts to reduce surplus:

- Returns expiring ambient goods to distributors
- Having promotions and a reduced-to-clear section at stores
- Processing fruits at reduced-to-clear section into cut fruits
- Converting expiring OEM products and unsold edible produce like seafood and meats into staff meals

Donation status:

- Attempted donating fresh produce
- Attempted liaising with a supplier and charity to donate surplus breads
- Disposes unsold produce that has turned bad

Barriers to donate:

1. No monetary incentive for donation – attempts to sell fresh fruits and vegetables till they turn bad

2. In certain cases of issues with edible goods upon arrival in Singapore, supermarket is pressured to comply with overseas exporters' practices of disposing goods in order to claim money for loss

3. In certain cases of issues with edible goods upon arrival in Singapore and unsold fresh surplus, supermarket has trouble identifying which charity or business wants and has the resources to quickly redistribute or use them

Suggested obstacles to donate:

1. Suppliers fear charities are reselling donated goods on the side

2. Companies fear news of having unsold surplus leaking into the public and damaging their brand image

3. Companies fear liability in situations of food poisoning if they donate

Overall quote:

- "Businesses are looking for the next best value. Donation will not come straight to our mind."

3. Everyday Supermarket / The Willing-to-Give-Fresh Supermarket

Everyday Supermarket is a major supermarket chain. Similar to Care Supermarket, the business works with distributors for ambient items, or non-fresh products. For fresh produce, or perishables, they buy from local producers and overseas suppliers.

According to the company, there may be a small percentage of spoilage when imported goods arrive in Singapore. Food loss also occurs when products in stores get damaged. For instance, customers may damage the products as they choose. As Denise, a senior manager at Everyday Supermarket says, “There are all kinds of creative customers like, exchange eggs, or try to pack more grapes into the plummet they are buying and leave the other poor box emptier... During those handling, fruits especially, will be spoilt, whether it’s your more volatile kinds like strawberries or blueberries. Sometimes, we have customers who may want to prick the fruits.”

Another source of surplus comes from expiring foods that are yet unsold. Instead of simply returning all the unsold ambient products to distributors, the supermarket chain currently donates to two main charities: Food Bank and Food from the Heart. The charities themselves collect from the supermarket’s outlets every month.

Everyday Supermarket’s donations include canned foods, noodles and biscuits. On why these products are marked for donation, Denise shares their concern for food safety. As she says, “Things like that have clear expiry dates, because we want to protect the end users, the beneficiaries.”

For fresh produce that are slightly blemished, the supermarket tries to sell them at lower prices. As Denise says, “If there is some blemish or scratches, we pack them and try to sell them at a lower cost. We try to salvage them. We try to sell as much as we can. But when they have turned bad, we have to quickly take down and throw. We always try to hang on and sell as much as possible. Only when it’s already cannot, we have to throw away.”

The supermarket chain is willing to donate fresh and frozen products. As Denise puts it, “Having fresh food like fruits and vegetables is healthier than you know, always the canned food. We want to have a balance to the kind of products we donate to the community.”

They have not done so however due to different factors. First, because of the logistics needed to store and distribute fresh and frozen products, food safety becomes an even greater concern. As Denise says, “Fresh and frozen usually need certain temperature range for storage. Even if I manage to pass to you and you collect in a cold truck... During the distribution, is it under hot weather? And maybe some beneficiaries don’t have fridges. If they don’t keep them properly, it can spoil. Sometimes, the charity may be busy, so they might hold on to the stock for some time before having the opportunity to distribute, and by that time, it’ll turn bad.”

The supermarket chain does not have the manpower to sort and ensure all the fresh produce that they can donate is of good condition as well. As Denise says, “When

we donate, we may be able to do some sample checking. Our challenge would be, when they reach the charity, there might be some understanding that these are not 100% good. The charity may need volunteers to sift out those that are not in good condition. Usually our manpower is very limited, they won't be able to do a lot of sorting. This is quite realistic.”

The average yearly amount of total food waste for the supermarket is 2000-3000 tons. In 2020, it was about 3000 tons. They are mostly fruits and vegetables.

Snapshot

Business profile:

- Major supermarket chain

Main food items/services:

- Ambient products and fresh produce

Source of surplus:

- Expiring ambient products
- Damaged and unsold fresh produce: surplus at outlets and spoiled products on arrival

Main efforts to reduce surplus:

- Returns expiring ambient goods to distributors
- Having promotions and a reduced-to-clear section at stores
- Processing fruits at reduced-to-clear section into cut fruits

Donation status:

- Donates ambient products monthly to two charities
- Disposes unsold fresh produce at reduced-to-clear section that has turned bad
- Willing to donate fresh and frozen produce

Barriers to donate:

1. Food safety concerns for fresh and frozen products: reservations about charities' logistics, distribution time, and communication to beneficiaries

2. Food safety concerns for fresh and frozen products: reservations about beneficiaries' storage ability, if they have fridges

3. Shortage of manpower to sort through fresh produce to ensure intended donations are in good condition

Enabler to donate:

1. Desire to make a difference to the food needs of needy

Overall quote:

- “We want to have a balance to the kind of products we donate to the community.”

CASE STUDIES: DISTRIBUTORS / WHOLESALERS

1. Express Distributor / The Protected Distributor

Express Distributor sells over 5000 different items, from dried goods such as salt, rice and sugar to frozen goods like French fries to meat. These items may be imported from overseas or sourced locally. They have a huge and varied clientele base, from supermarkets to hotels, restaurants to coffeeshops, and have their own logistics fleet.

There are a few main ways in which surplus foods get generated. First, supermarkets may reject the goods they supply to them because of mistakes such as printing errors on the packaging of the product. As Marcus, one of the owners of Express Distributor says, "If there was a printing error on the packaging and the supermarket doesn't accept it, and I can't paste a sticker over the error... For example, let's say, FairPrice can't take it but I can't sell it anywhere else, because I've already packed it under the FairPrice brand. If you are not in manufacturing, you can't repack the product, then it is just sitting there. I can't sell it, I can't clear it, I can't repack it, I can't do anything, and that's when you get surplus."

Second, supermarkets may return unsold products as their shelf life gets shorter. According to distributors' contracts with supermarkets, the latter are generally able to return items left with a shelf life of less than three months. These returns are usually not returned by the carton, but singly in loose packaging. As Marcus puts it, "There may be 2 tins of a certain item per outlet. If the supermarket has 150 outlets, that's about 300 tins."

Whenever possible, Express Distributor resells returns from supermarkets to other customers, such as coffeeshops, cafes, and restaurants. Their varied customer base allows for such flexibility and minimises loss on their part. When rejected goods can't be sold, they donate them to an adopted charity. Thus far, the business has donated various items, like mushrooms, drinks, salt, and pasta. There is no evident trend as far as their owners can tell. As Marcus says, "It's really random. Sometimes it (a product) sells, sometimes it doesn't. If it doesn't, we really just donate out."

Smaller-sized distributors that do not have such a varied customer base face more difficulty with reselling goods returned by supermarkets. If they don't donate as well, these goods may be incinerated when they expire.

While Marcus thinks the Good Samaritan Law will protect donors so that they won't worry about liability, he also suggests having tax deductions to boost donations. As he explains, "Because some will still say, even though there is a Good Samaritan Law in place, 'I don't want the risk or people to know my brand has items I want to throw away. Then I rather throw away regardless of whether there is a Good Samaritan Law.' To encourage donation, there can be a cash incentive where if I give goods in kind, I get some rebates back and I am more strongly encouraged to donate."

The charity that Express Distributor donates to accepts both fresh and packaged products. They work with family service centres, elderly homes, children's homes, migrant workers organisations, among others. When they receive donations, they sort the products according to different variables, such as whether it is halal or vegetarian. Volunteers de-label products when brands prefer people not to know they donate. They redistribute foods on an average of twice a month to different organisations.

One issue the charity faces is the lack of regular, consistent donations. This makes what they redistribute month by month harder to plan.

Both donors and beneficiaries also sign indemnity forms with the charity before donation takes place. The charity sees signing indemnity forms with donors as a means to offer protection to donors so as to convince them to donate. It also views the indemnity forms they sign with beneficiaries as a way to protect themselves.

The terms for both indemnity forms are similar. As Marcus says, "Essentially, it is the Good Samaritan Law without the Good Samaritan Law in place. It says, 'You are donating in good faith. We will not sue you and you are not liable to be sued.' It's the same thing for the other side. It's the same as the Good Samaritan Law, just without the 'chop' of the government."

Snapshot

Business profile:

- Leading food distributor, with about 5000 different items

Main food items/services:

- Dried goods
- Chilled and frozen products

Source of surplus:

- Rejected goods by supermarkets due to packaging problems
- Returns by supermarkets due to short shelf life

Main efforts to reduce surplus:

- Reselling returned goods to other customers such as cafes

Donation status:

- Donates unsold, returned goods to a major charity

Enablers to donate:

1. Willingness to donate and minimise waste
2. Signed indemnity forms have encouraged companies to donate surplus food

Suggested enabler to donate:

1. Having tax deductions will encourage other companies to donate

Overall quote:

- “Essentially, it (indemnity form) is the Good Samaritan Law without the Good Samaritan Law in place.”

2. Ocean Distributor / The Willing-But-Concerned Distributor

Ocean Distributor is a major seafood distributor in Singapore. They source from all over the world, and their products range from crabs to scallops, fish to prawns, sea cucumbers to clams. Their customers include supermarkets, restaurants, caterers, staff canteens and coffeeshops. The two main sources of surplus foods are rejected goods from customers such as supermarkets and restaurants, and expiring or expired products in their warehouse.

Supermarkets reject goods for reasons such as damaged packaging, while restaurants reject goods because of the sizes of the delivered seafood. As owner Chang explains, “Restaurants will be more specific when it comes to sizes. Sometimes they want this particular size, but our supplier came to us with the wrong size, either under or oversized, say fish or prawns.”

“Supermarkets are more concerned about packaging. Sometimes, products are supposed to be vacuum-packed but when they arrived, they are not vacuum-packed and are not so appealing in terms of appearance, and so, they return to us. [...] People will say it’s not vacuum-packed, but it is still in good condition,” he adds.

When Ocean Distributor encounters these returns from supermarkets, they will try to repack the goods. In cases when repacking is difficult, they will sell them to other sales channels at lower prices or dispose of them. The company is willing to donate these items, but has not done so regularly.

As Chang says, “When supermarkets return these products, they don’t return in one carton. They are in loose packaging. Like, 5 packets of this, and 5 packets of that. It’s hard to sell to other clients. If there is an organisation that can accept these loose packaging, and don’t mind our product range, they are in good condition to donate.”

Ocean Distributor’s warehouse has more than 2000 pallets of goods. Sometimes, inventory errors occur and they face expiring or expired products. These are usually disposed of, but occasionally, the company gets in touch with the charity Willing Hearts, who is also their customer, to see if they are keen to accept goods that are close to expiry. This happens only about 2 times yearly.

They liaise with Willing Hearts as they are aware that the charity cooks every day and will not have any issue with the storage of frozen seafood. They have considered giving to Food Bank, but felt that the organisation does not have a big enough space to store frozen food, and is hence unsuitable to donate to. Ocean Distributor is not aware of any other suitable charity for their surplus.

Expired goods are thrown away. Because these expired products have been kept in the freezer, most of them are likely to be still edible however. As Chang says, “Some products we can’t give because they are expired, so we dispose of them. But to be honest, products that have been kept in freezer for two years, they’re still edible. But if there’s an agency to check that they are safe for human consumption, that will be good. Because once products expire, we have to dispose.”

Ocean Distributor is willing to consider donating these expired products if a government agency is willing to check and certify them to be safe for consumption. Like Chang puts it, “If someone, if SFA, can step in to do a test or certify they are safe for consumption, maybe we can donate these to charity.”

They are willing to provide the logistics needed for such tests. Currently, the business throws away about 100-200kg of expired, expiring, and rejected goods every month.

The business uses best-before dates to determine if goods are expiring or expired. As Chang explains, “In Singapore’s context, ‘best-before’ equals to expiry date. So, on a product there will be the production date, and the best-before date.”

Snapshot

Business profile:

- A major seafood distributor with a clientele base that includes supermarkets, catering companies, restaurants, coffeeshops, and staff canteens

Main food items/services:

- Frozen seafood from around the world, and canned abalone

Source of surplus:

- Rejects from supermarkets due to packaging issues
- Rejects from restaurants due to wrong sizes
- Expiring and expired goods in warehouse due to inventory errors

Main efforts to reduce surplus:

- Attempts to sell rejected goods to other sales channels at lower prices

Donation status:

- Very occasionally donate rejected and expiring goods to Willing Hearts
- Willing to donate to other organisations
- Willing to donate expired frozen food if an agency is willing to certify them safe
- Throws away 100-200kg of expiring and expired goods every month

Barriers to donate:

1. Lack connections with suitable charities: unaware of which charity besides Willing Hearts would be keen in their surplus, and has adequate cooking, storage, handling or distribution capabilities for frozen seafood

2. Possession of expired frozen foods that might be suitable for consumption, but are disposed of under prevailing guidelines

Overall quote:

- “Even if I have things to donate, I couldn’t even get the right people to get them, because of their storage issues.”

3. Veg Hub / The Giving Importer and Wholesaler

Veg Hub is one of Singapore's biggest fresh foods importers and wholesalers. They import around 200-300 types of fresh vegetables and fruits from countries such as Malaysia, China, Indonesia, Thailand, Vietnam, Netherlands, New Zealand, and Taiwan. While their main clientele are other wholesalers, they also deal with wet markets and supermarkets.

In their operations, there are a few ways in which surplus foods get generated. First, imported goods may fail SFA's tests for chemical contaminants. Tests are usually carried out more frequently on goods that have a shorter shelf life, such as leafy vegetables, spices, and herbs.

Second, a percentage of imported goods may turn out to be spoiled. This may be due to mistakes made by their suppliers, such as when packing houses didn't select or package goods properly. Shipment delays may also affect their quality.

Third, Veg Hub may have excess goods in their warehouse that can't be sold in time. Veg Hub has a cold store for leafy greens that are stored for up to a week, and a dry section for goods like pumpkins that are stored for up to 2 weeks. The business orders weekly. They gauge what demand for different items might be in a few weeks, and cater for an average of 20% buffer of stocks. Clients may also reject goods, for reasons such as not aesthetically beautiful enough.

Fourth, suppliers may make mistakes with their customs permit declarations, such as under-declaring the amount of goods being imported. While this is rare, such incidents may result in goods being detained and subsequently disposed.

When goods fail SFA's tests for chemical contaminants, they will be thrown away at a central bin at Pasir Panjang Wholesale Market. For imported goods that arrive edible but substandard, the company will first try to sell them at lower prices to other businesses such as wholesalers that have the manpower to trim them or central kitchens that may buy produce in bulk. They may be given to their workers, or donated to charities, before throwing them away as a last resort.

Excess warehouse stocks, which include buffer stocks and those that are edible but rejected by clients, are donated to three charities due to their limited warehouse space. The three charities are Sunlove Home, Willing Hearts, and Lions Club of Singapore. Like Maria puts it, "From our experience and judgement, if something is still edible, we will give. [...] If not, we throw them away."

Veg Hub works with these three charities, simply because these charities have approached them. These charities have their own vans and collect the donated products themselves three times weekly. Veg Hub has not experienced any problem working with them so far. They do not undertake any measure, such as liability forms, to protect themselves as well. As Maria says, "It (donation) is based on trust."

The business has declined to work with another charity however, citing their suspicion of the charity selling donated products on the side as one reason.

When probed if having a Good Samaritan Law may increase their donation, Maria says, “We may donate more only if there’s a need. If charities request more, we will give more. But sometimes, they don’t need so much. If you give more and they don’t need it, it’s wastage also.”

Veg Hub is however, open to working with other charities. The reason they haven’t is only because no other charity has asked them for donations. Willing Hearts even started out as their customer, before becoming their beneficiary. As general manager Maria says, “No other charity has approached us.”

When the three charities they work with very occasionally decline their donations however, for reasons such as having enough stocks and wanting to switch up their menus, Veg Hub may throw away the surplus.

Once, the company also tried calling up other charities to donate excess vegetables but experienced difficulty in finding takers. As Maria says, “Some charities really reach a point where they don’t need more donations.”

For Veg Hub, goods that are more than 5% rotten will be thrown away at the central bin. The total amount of disposed produce is about 1-1.5% of their imported products in 2020. The percentage was slightly higher in previous years. The company judges 2-3% of thrown-away goods as “too much.”

According to Maria, she estimates about 5-10% of the vendors in Pasir Panjang Wholesale Market donates. Most of the non-donors are usually retailers who do not buy as much produce as major wholesalers like Veg Hub does, and hence, will have far lesser surplus foods.

Individuals at Pasir Panjang Wholesale Market have also been observed to pick up goods from the central rubbish bin. Because goods thrown into the bin may include both slightly damaged goods and goods that have failed SFA’s chemical contaminant tests, that can be risky. As Maria warns, “Sometimes SFA may throw goods that have failed the fertiliser or pesticide tests into that bin, and if you pick from the refuse, you don’t know... The chemical content of the goods may be high, and you won’t know.”

Maria also attests to incidents where people have tried to sell products that have failed SFA’s tests, but asserts that SFA is implementing stricter measures.

Snapshot

Business profile:

- Leading importer and wholesaler of fruits and vegetables in Singapore

Main food items/services:

- Fresh fruits and vegetables imported from different countries

Source of surplus:

- Goods that failed SFA's chemical contaminant tests
- Substandard goods upon arrival in Singapore, such as damaged or spoilt
- Warehouse excess
- Mistakes by suppliers on their custom permit declarations

Main efforts to reduce surplus:

- Selling edible substandard surplus at lower prices to different sales avenues
- Reminding suppliers to declare goods accurately

Donation status:

- Gives edible surplus to charities and their own workers
- Throws away edible surplus very occasionally, when charities decline their donation

Enablers to donate:

1. Trust between business and selected charities
2. Willingness to donating to other charity if approached

Barrier to donate more:

1. Uncertain which other charity need donations, if any

Overall quote:

- "No other charity has approached us."

4. Hua Sheng / The Donate-Better Wholesaler

Hua Sheng is an established wholesaler that deals mainly with dried goods, such as almonds, walnuts, pistachios, raisins, scallops, mushrooms, fish maws, and sea cucumbers. They also have canned foods, like canned abalone, and preserved sausages. Being in the import and export business, their clientele includes food service businesses like factories, manufacturers, central kitchens, and restaurant suppliers. They may also sell to traders, or export goods to other importers. They have a retail shop as well, where they receive individual customers.

The surplus they face at times, are imported goods that are difficult to sell, where there is a lack of demand. This is mitigated by the longer shelf life of their goods and their storage in chillers however, which gives the business more time to sell them.

To reduce surplus, Hua Sheng will also usually sell the goods that are slow-moving or close to expiry for cheap to different sales channels, and usually successfully. As Lucas, manager of Hua Sheng says, “For us, we have our channels to sell those goods that are nearing expiry date, it’s just a matter of price, making some losses, but we will, most of the time, I won’t say 100%, be able to move the goods so that there won’t be wastage, and also try to get back as much cash as possible.”

The company very occasionally donates to Food Bank if the latter requests for specific items. This has only happened about 2-3 times over the years. When this happens, they will not donate expiring surplus goods. They prefer to donate products in good condition, with at least a year till their expiry dates. This is to ensure that the charity has time to distribute and that donated goods will reach beneficiary safely.

As Lucas says, “If by the time they are expired when they reach end users, it’s not nice. I feel bad to give near-expiring goods. [...] If we want to donate, we donate something better - things that they (end users) want and like.”

They receive a lot of customers who came to the company to deliberately buy food for donation to temples, mosques, and more recently, the migrant worker community. The amount they buy may vary from say, 50 to 300-400 packets of nuts or dried foods. These happen more often during events like Chinese New Year, Ramadan, and Deepavali. For these customers, Hua Sheng sells the goods at very good rates, even at cost prices. These customers know about Hua Sheng through word of mouth, and according to Lucas, they know what certain communities need and buy accordingly.

The company is open to donating food, but says they are unaware of what is needed by which beneficiaries. They have heard of situations where there is disparity between what is donated and what different recipients need, resulting in wastage. As Lucas says, “We are not sure what kind of foods are good for donating. [...] What would be good to find out is, what exactly do the people – the needy, low-income families – really need, and how we can address it better.”

“What should we donate? Must it be halal, must it be vegetarian, must it be this, must it be that? We wouldn’t know,” he adds.

Donations to beneficiaries should go beyond basic necessities, but be of nutritional value and account for beneficiaries' needs. As Lucas says, "What they (beneficiaries) need is maybe to move on to another level, nutrition level. What is nutritious, what is required to maintain a healthy lifestyle, things like that."

He suggests using digital platforms such as social media channels to communicate and coordinate between what needy communities like to get, say fresh foods, and what donors offer.

Because they mainly deal with dried goods that are not easy to spoil, Hua Sheng does not see how the passing of the Good Samaritan Law will affect their operations. They see it as more relevant for businesses dealing with cooked food, where the risk of foodborne illnesses is higher and may hinder some from donating.

Snapshot

Business profile:

- Established wholesaler of dried goods in Singapore

Main food-related items/services:

- Dried goods and canned products

Source of surplus:

- Expiring goods and expired goods that have gone bad

Main efforts to reduce surplus:

- Selling expiring goods at low prices, usually successfully

Donation status:

- Donates specific items to Food Bank when requested
- Does not usually donate expiring foods
- Customers sometimes buy products from them at low prices or cost prices for donation, especially during events

Barriers to donate surplus:

1. Does not know what are needed specifically and to which group of beneficiaries

Suggested enabler to donate:

1. Having more clarity on what different beneficiaries need, and the amount needed, and matching this with what potential donors could offer, to prevent waste

Overall quote:

- "If we want to donate, we donate something better – things that they (end users) want and like."

CASE STUDIES: RELIGIOUS INSTITUTIONS

1. Straits Mosque / The Community-Oriented Mosque

Straits Mosque is a mosque at a residential estate, with a number of donation initiatives. During Ramadan, the religious institution would serve food to congregants daily. There would be porridge at 130 and 430pm, and rice and side dishes in the evening, during Iftar, the daily evening break-fast session. The rice and side dishes would be served in trays that could be shared by four people at a time. The food would be cooked by a catering company. This was pre-Covid days.

There is a Social Development Officer at the mosque, and one initiative he is in charge of where rations of foods such as white rice, Milo, vegetable oil, biscuits, baked beans and sardines are distributed to needy families every month.

Straits Mosque also gives beneficiaries food coupons. These beneficiaries redeem cooked meals from a nearby food centre themselves. Hawkers from the food centre then collect the payment from the mosque.

The surplus that Straits Mosque faces is during Ramadan, during the daily evening break-fast. Instead of packets of food, food arrived in pots from caterers and was served in trays in pre-Covid days. Each tray allowed four people to share food, helping to manage surplus. As Fadli, chairman of the mosque, explains, “If the number of people is more than we catered for, then we will reduce the portion for every tray. Say, I order for 500 pax but I can serve 600 pax in 150 trays. It may not be a lot of food for everyone, but everyone will get to eat.”

“That’s how the culture here is. It’s so nice that it is helping us to ensure our visitors are happy before they leave. I came across experiences when we ordered packets and there were not enough, or if we ordered too many, they were wasted,” he adds.

Leftover food portions for each day during Ramadan were monitored and used as references to forecast for the next day. Congregants after night prayers may take the food home. Low-income families living nearby were also contacted and asked if they were interested to take the leftovers. Volunteers and staff at the mosque would verbally remind them to check the cooked food before consumption and to eat it soon. As Fadli says, “We tell them, ‘Make sure when you go back, go eat. If it’s not good, don’t eat.’”

The mosque expresses no worry about donating both packaged and cooked food. Packaged food has clear expiry dates, which are easy to refer to. For cooked food, while the mosque is aware of the 4-hour safety limit in place, they, together with beneficiaries, use their own judgement to ascertain if the food has turned bad. As Fadli says, “Right now, there is a 4-hour limit for caterers. But after 4 hours, people still keep and heat. If food is still good, you can still eat it. That’s the rules that NEA set, but of course, as humans, we must see if the food has really turn bad. That’s the guideline but it depends on individuals.”

Fadli doesn't think the passing of the Good Samaritan Law will affect the mosque's food donation activities much. He however emphasises that such a law about giving has to be gentle, or fair to different parties involved, more than about pinpointing blame. As he says, "This law is about giving, so it must touch the hearts of those who donate and those who receive. It must be subtle, and touch the hearts of both sides. It must protect those who take too, and be balanced and fair to everyone."

"It shouldn't be too hard, and it's not about putting the blame on each other. It must be gentle and very smooth. If the government implements this, my suggestion is to be gracious to both sides, and not push the law to people," he adds.

Snapshot

Profile:

- Mosque at a mature housing estate

Main food-related items/services:

- Works with a caterer for Iftar, or daily break-fast during Ramadan
- Distributes packaged food rations to beneficiaries every month
- Distributes food coupons to beneficiaries who use them to redeem for cooked meals at a food centre nearby

Source of surplus:

- Cooked food surplus during Ramadan

Main efforts to reduce surplus:

- Serves food in trays for more flexibility when allocating portions
- Contacts and gives surplus cooked food to low-income families nearby

Donation status:

- Has a number of donation initiatives
- No negative experience so far, including donating surplus cooked food during Ramadan

Suggestion to increase acceptance of the Good Samaritan Law:

1. Rolling out the Good Samaritan Law in a way that feels gentle and fair, rather than in a manner that feels aggressive and about pinpointing blame

Overall quote:

- "If the government implements this, my suggestion is to be gracious to both sides, and not push the law to people."

2. Royal Mosque / The Considerate Mosque

Royal Mosque is a mosque in central Singapore. Like other mosques, it organises Iftar, a break-fast session that happens every evening during the month of Ramadan, and Sahur, breakfast for congregants who spend the last 10 nights of Ramadan at the mosque.

Royal Mosque orders these foods from a catering company. They know of other mosques who buy ingredients from wet markets or receive food donations to cook themselves.

Like other mosques in Singapore, Royal Mosque also donates food rations of dry and canned food to needy residents in the community. They distribute porridge to nearby residents (regardless of beliefs) in the leadup to Ramadan as well, to inform them that there will be nightly prayers at the mosque and seek their understanding.

The surplus that Royal Mosque encounters is mostly the excess porridge from their distribution rounds, and the leftover cooked food during Iftar and Sahur during Ramadan. These cooked food during Iftar and Sahur usually comprises rice and side dishes such as stir-fry vegetables and chicken curry, and their surplus stems from a mismatch between forecasted demand and the number of congregants who show up to eat.

The amount of surplus that stems from Iftar varies. There are occasions when there is no surplus. At times, there could be even be enough surplus food for about 50-80 pax.

Surplus food from Iftar and Sahur would be packed and distributed to congregants after prayers. Iftar for example, usually begins at 715pm, with prayers right after. Most congregants, after attending this prayer session, may also choose to stay for the next set of prayers at 830pm. When prayers end around 945-10pm, some congregants may take home the extra food.

Some cooked food items may run the risk of being spoilt by this time. But while the mosque is concerned about food safety, they see the congregants as taking the food at their discretion.

They have also tried once, using an app to inform residents nearby that they had extra food and people were welcome to collect them. Some people showed up. The mosque is keen to explore ways to be more efficient about their food donation and distribution.

If there are still leftovers after redistribution, they would be thrown away.

When probed on how the passing of the Good Samaritan Law may affect their activities, Hilmi, chairman of Royal Mosque says, "I don't see how the law would affect us adversely."

He however, emphasises that distribution of surplus food be done with sensitivity to the recipients. As he quips, “The tone in which food donation is done should be considered. The recipients’ dignity should also be considered. We don’t want to come to a point where recipients say things like, “Oh, you don’t want and now, you want to give me.”

Snapshot

Profile:

- Mosque in central Singapore

Main food-related items/services:

- Pre-covid, cooked rice and side dishes for Iftar, daily break-fast during Ramadan, and Sahur, breakfast for congregants who spend the last 10 nights of Ramadan at the mosque
- Pre-covid, cooked porridge to distribute to congregants after mid-day and afternoon prayers during Ramadan
- Pre-covid, distributed porridge in the lead-up to Ramadan to inform residents – regardless of their beliefs – that there will be nightly prayers and seek their understanding
- Distributes packaged food rations to beneficiaries every month

Source of surplus:

- Cooked food surplus after Iftar and Sahur during Ramadan
- Surplus porridge that are left undistributed

Main efforts to reduce surplus:

- Gives leftover food to congregants after prayers during Ramadan
- Once used an app to contact and distribute surplus cooked food during Ramadan to residents

Donation status:

- Donates food rations of dry and canned food to needy residents

Suggestion to increase acceptance of the Good Samaritan Law:

1. Carrying out donation in a way that takes into considerations the recipients’ feelings and dignity

Overall quote:

- “The recipients’ dignity should also be considered. We don’t want to come to a point where recipients say things like, ‘Oh, you don’t want and now, you want to give me.’”

INSIGHTS

All businesses try to minimise food waste, because it is cost and affect their profit margins. At the same time, some businesses also deliberately plan for buffer or surplus food. This plan for buffer or surplus food may be viewed as a good business strategy. For instance, bakeries may keep their shelves still stocked with products close to the end of their workday, wholesalers purchase about 20% more as buffer stock, hotels prepare more food than needed at buffet tables and events, and restaurants may forecast for best-case scenarios when estimating the number of customers so that they won't run out of items on their menus too early.

These strategies are ways to provide consumers with a sense of abundance or choice, with the end goal of enticing them to buy. As the owner of Jade Bakery explains, "As a customer, you want to step into a shop and it's full of products, you feel attracted then you want to buy. [...] Definitely, we will have some leftovers. I like to do a lot, to attract people."

And like the owner of the bakery chain Baked Goods says, "The bread items, [...] actually their cost is not very big. So, we do plan for surplus, particularly in the bread category."

Similarly, eating places like Soul cook on demand, which reduces the likelihood of unsold cooked food. But because they engage in certain preparation processes such as trimming and seasoning meats to store in the fridge every few days, they may still generate a small amount of surplus. As their general manager says, "A restaurant can never have exactly enough for the customers that come, you always want to kind of give people the option that they can order anything they want. I should have something for, you know, a customer like 95% of the time, because nobody wants to disappoint a customer. So, it ends up yes, I have to prepare a little bit more in order to give the customer the option. And which means I run the risk of that wastage as well."

The art of forecasting involves striking the optimal balance between not missing out on potential sales while minimising food costs. It goes hand-in-hand with efforts to drive consumption when products are slow-moving, such as restaurants telling wait staff to recommend customers to order items that have already been partially prepared (such as marinated meats lying in the fridge) but are not selling fast enough.

To handle the unsold edible surplus that gets generated, businesses may choose to donate food, and they do so with varying degrees of adherence to NEA's food donation guidelines.

According to NEA's food donation guidelines, it is recommended that the redistribution of bakery products be limited to non-cream cakes, pastry without fillings and plain bread. On the ground however, there are bakeries that choose to donate breads with fillings instead of plain bread. Plain bread generally has a longer shelf life compared to buns with fillings, and therefore stands a higher likelihood of

being sold in time. Some bakeries therefore, may not have surplus plain bread to donate.

Bakeries that donate breads with fillings do so however, by undertaking various strategies to ensure food reaches beneficiaries safely. One way that small neighbourhood bakeries protect themselves against their non-adherence to NEA's food donation guidelines, may be to frame their behaviours as "giving" rather than "donating."

Similarly, when conventional buffets were allowed, State Hotel blast-chilled certain cooked items from their buffet tables once they reach their 4-hour limit and followed a stringent procedure to donate these foods. And they did so, even without any explicit, detailed recommendation on donating cooked food in NEA's food donation guidelines.

While these stories reveal how some businesses use NEA's food donation guidelines more as reference rather than gospel when ensuring food safety during donation, they also suggest how NEA's guidelines can be enhanced in the interest of increasing food donation.

CHALLENGES TO DONATION

1. Suspicion towards charities

One factor influencing businesses' decision not to donate is their reservations about the ability of charities to handle donations safely and not cause harm to their beneficiaries. This pertains to items with short shelf lives and those with specific storage needs, such as breads, fresh vegetables and fruits, and frozen food.

Such misgiving is most evident in the case of King's Bakery, who donated surplus buns through a charity years ago, but stopped after beneficiaries of the charity received mouldy goods and blamed the company.

The areas where these concerns are most pertinent for these businesses are: how charities collect and store donated goods, when they distribute these to their beneficiaries, and if they pass on adequate handling instructions such as checking and consumption before a certain time.

Some businesses are also wary because of a fear that charities would profit from their products. This seems to be the case for a bread supplier that Care Supermarket works with. The supplier had agreed to donate their surplus at Care Supermarket to a charity for a period of time, but stopped, citing their fear of the charity reselling their products as one reason. Similarly, Veg Hub decided against working with a particular charity due to this fear.

2. Suspicion towards beneficiaries

The second factor that hinders businesses from donating is their reservations towards the end recipients of the donated food.

The areas that they show most worry are beneficiaries' storage capabilities and their willingness to follow through with handling instructions. This is especially so for products such as breads that do not contain preservatives, but whose shelf lives could be extended with refrigeration. Some businesses believe that poorer beneficiaries may not have fridges.

Keeping in mind the general health of different groups of people, businesses also reveal an uneven degree of wariness toward beneficiaries. The neighbourhood bakery Tasty Breads for instance, prefers to give to migrant workers rather than elderly persons, because of their fear that the latter have compromised immune systems and may end up unwell despite consuming safe, edible breads.

These reservations – whether towards charities or beneficiaries – first come from a fear of liability. Sky Mart, Senses Hotel, and Jazz Hotel all cite such worries as influencing their decision towards not donating. A chef at Senses Hotel for instance, says, “We are a big business. We cannot afford to be linked with a foodborne illness. It would feel like the whole world is collapsing.”

And as a manager at Sky Mart quips, “When we talk about liability, of course we want to do good, but we don't want to do good at the risk of being punished.”

Besides a fear of liability, these reservations also come from a place of worry about reputational damage. This is brought up by Orchid Coffee House. Similarly, Crazy Toast claims they are aware of brands with such concerns. Like the marketing director of Crazy Toast says, “Social media is more powerful than law sometimes. It just takes one guy to post... Don't care the law protects you, the reputation risk is much more of concern.”

Lastly, these reservations towards charities or beneficiaries stem from some businesses' desire to ensure food safety on the part of the end beneficiaries. It is part of how they see themselves as operating with conscience.

As a director at Care supermarket says, “At the end of the day, for us, when we deal with food, it's all about conscience. Whatever food, whether selling or donating, we want to make sure the food is safe for the person who is going to take it.”

3. Perception that food recycling is a better option

The suspicion that businesses towards charities and beneficiaries contribute to the view that food recycling is a safer option than donating, rather than the next best resort. As the case study of King's Bakery shows, not only is this in line with the government initiative to have sizable food-waste generators segregate their waste for treatment for 2024, it also minimises their risk of liability and reputational harm if they donate.

4. Difficulty with finding suitable and interested charities

For goods that require specific storage conditions, such as frozen goods, distributors may face difficulty in ascertaining which charity is keen and capable of collecting, storing, and distributing these safely. Ocean Distributor, for instance, is unaware of any other charity besides Willing Hearts that cooks and do not have an issue with collecting and storing frozen seafood.

This difficulty may also crop up for businesses that deal with fresh produce. While wholesalers like Veg Hub donate, they encounter occasions when the charities they work with may have enough vegetables and decline donations. Once, they tried looking for different elderly homes to donate excess vegetables to but experienced issues in find charities that needed them. As the general manger of Veg Hub says, “Some charities really reach a point where they don’t need any more donations.”

Similarly, Care Supermarket once encountered an accident in which a big shipment of bananas arrived ripe instead of green. Given the short shelf life of such perishables, they quickly contacted a charity to see if they were keen to collect and distribute those, but they did not get a reply. They are unsure why they didn’t get a response.

5. Perception that cooked leftovers are undesirable

Besides practical concerns about safety guidelines around cooked food, such as the 4-hour limit, cooked food vendors also reveal a perception that cooked food – by virtue of them being leftovers – are undesirable for donations.

Like the owner of Shun Shun Teochew porridge stall says about her unsold leftover vegetables on display, “It’s not good to give leftovers to others. That’s like giving them rubbish. If you want to treat other people, treat them good food.”

Such sentiments, coupled with valid concerns about food safety, lie behind how cooked food stalls uphold their business in a way that they see as ethical, and why they prefer to donate freshly cooked food rather than cooked surplus. It is their idea of how to give well. Often however, employees of cooked food stalls eat the small amounts of leftovers themselves. In the case of Shun Shun Teochew Porridge stall, the owner also take home the leftovers for her children.

6. Donating food may run against business sense

In the eyes of businesses, their food items are commodities, to be sold in the market at prices that make a profit. Once food leaves the market, they no longer have exchange value, regardless of whether they are still edible or not.

Most of the food waste that retailers like supermarkets have are perishables like fruits and vegetables. Instead of donating unsold produce as they draw close to expiry, supermarkets would hang on to them for as long as they are in decent condition, only throwing them away when they show signs of turning bad. After all, there is no financial incentive to intervene at an earlier time and earmark produce for donation,

when perhaps, they still have a chance of being sold. Devoting manpower to open up boxes of perishables like strawberries, sift and sort through them, and then repack those that haven't gone bad, to ensure they are safe for donation is additional business cost. This is on top of their existing worries about how charities would collect, store and distribute these perishables to beneficiaries safely, if they donate.

Like a manager at Sky Mart says, "We don't have the manpower to sort through 100kg of food and groceries and inspect them for donation. It's how and who will do the validation of certifying them safe for consumption."

Similarly, Everyday Supermarket is willing to donate fresh produce but asserts they are only able to do some sample checks and limited sorting due to their shortage of manpower. As such, they are unable to guarantee that if they donate fresh produce, they are "100% good."

As the case of Care Supermarket reveals, supermarkets may also experience issues with their imported produce due to accidents very occasionally. In such situations, they may dispose of the edible goods instead of donating. This is to comply with their overseas exporters' guidelines, so that they are eligible to claim money for loss of goods. In such situations, it makes more economic sense to throw than to donate.

Some companies may also be concerned about their brand image, as the availability of unsold surplus for donation may be taken as indicating unpopularity, a sign of a lack of interested consumers.

ENABLERS TO DONATION

1. Pre-existing ties between businesses and beneficiaries

Despite the challenges, there are a number of factors that facilitate food donation. Together, they create situations in which it is more conducive for businesses to give.

The first factor is having pre-existing relationships between businesses and beneficiaries. These ties facilitate the building of trust, and with that, the conversion from a non-donor to a donor.

For a number of businesses, their beneficiaries were initially their customers, and may still be so. The owner of the small coffeeshop drinks stall Orchid House for instance, wary of complaints and reputational damage, gives buns that are close to expiry only to migrant workers he knows, and who started off by being his regular patrons.

For the major wholesaler Veg Hub, one of the charities they regularly donate to was initially a customer too, before becoming their beneficiary after the company learns more about their activities. Ocean Distributor also gives – albeit irregularly and infrequently - to a specific charity when they come to buy products from them.

In a way, the nurturing of trust, at times through routine business operations, smoothens the path to allaying suspicion that some businesses have towards charities or beneficiaries, and moves them towards the act of donation.

2. Collaboration with charities

One way that businesses could choose to work around challenges such as their reservations towards charities and end beneficiaries is collaboration. This is the case for Jade Bakery, where the owner, after receiving a charity's request for surplus breads, decided to engage with them to learn more about the beneficiaries they have and their beneficiaries' needs.

Through their conversations, the owner of Jade Bakery made suggestions on which of his surplus items would suit the charity's elderly beneficiaries in a mature residential estate, while taking into account their health needs and dietary preferences. He also told them explicitly when to give, such as on the night of production itself, how much to give to each person, such as just 1-2 buns, and the verbal instructions to convey to them, such as consuming these for their morning breakfast the next day. This collaboration ensures that these donated buns (some with fillings), which have short shelf lives, reach beneficiaries in good condition and increases the likelihood that they are consumed safely.

In a way, the case study of Jade Bakery reveals how mutual learning and collaboration allows for better matching of supply and needs on the ground while alleviating businesses' anxieties towards charities and end beneficiaries.

3. Awareness of best practices to donate cooked food

Cooked food businesses like food stalls and central kitchens often cite the 4-hour limit as the reason why surplus cooked items are not suitable for donation. One out of four hotels we talked to however, has been able to donate cooked food surplus from their buffet tables successfully, repurposing about 10 tonnes of edible surplus into meals for needy families in 2019.

How State Hotel managed to do this is by following a stringent procedure of immediately blast-chilling their surplus at the 4-hour mark, vacuum sealing them, and labelling the boxes of food with information such as date, time, ingredients, and the chefs who blast-chilled them. As an ISO 22,000 certified establishment, the hotel also generally collects food samples for testing, to allow for traceability just in case they receive any complaint.

Similarly, Jazz Hotel was informed by a ground-up initiative that if they like to donate cooked food from their buffet tables to them, they would have to blast-chill their items. Even though talks ceased because of the pandemic, the hotel is now better aware of how to ensure safety when donating cooked surplus food. They assert that having more detailed safety guidelines by NEA when it comes to donating, would further help to indemnify hotels when donating too.

4. Strategies to minimise liability

To protect themselves from liability during donation, some businesses turn to undertaking a range of strategies, from verbal instructions to formal documents drafted with the help of lawyers.

Verbal instructions may include explicit reminders about expiry dates of food and safe handling instructions. For instance, establishments like Tasty Breads, Jade Bakery and Orchid Coffee House verbally remind the charity or beneficiaries they give to, to consume products by a certain time. This is to increase the likelihood of safe consumption and hence, reduce the business risk they are taking to donate food.

In the case of Jade Bakery, their strategy to minimise liability further took the form of an email written by the charity stating information such as the charity's responsibility as to how the donated breads will be used and distributed.

For State Hotel, this took the form of a formal disclaimer signed by the charity they work with, stating that the hotel is donating in good faith and is not liable to be sued if anyone gets foodborne illnesses from consuming their donated cooked food. Indemnity forms such as these are used to offer legal protection to donors, sometimes by charities themselves such as Food Bank as a method to convince potential donors to donate.

CONCLUSION

Keeping in mind these challenges and enablers that businesses face when considering food donation, this study makes the case for the passing of the Good Samaritan Law Food Donation Act.

While such a law may not rid every existing challenge towards food donation, it would mitigate against important concerns that businesses now face, namely, their fear of liability, and – to an extent – their worry about reputational damage. Such worries currently contribute to producing businesses' suspicion towards charities and beneficiaries.

For such a law to be made even more efficient in encouraging donations from food businesses, this study recommends that two specific challenges outlined be addressed. The first challenge is the difficulty that certain businesses have in finding suitable charities with adequate facilities, when they want to donate products that require specific handling and storage conditions, such as fruits and vegetables, and frozen food.

Solutions to resolve this should go hand-in-hand with efforts to gain greater clarity on current donation or redistribution efforts of different non-profits and the actual needs of different groups of beneficiaries. As a few businesses in this study have suggested, there may be disparity between supply and demand on the ground. A caterer has for instance, been told that certain beneficiaries in the west are overserved in the area of cooked food. A wholesaler has also asserted that generally, charities may not need more donations of fresh vegetables from their part.

More research can be done in this area. Greater visibility on current donation or redistribution efforts and the actual needs of beneficiaries would go some way to enable better coordination and prevent waste of not only food, but labour, and time. This would also prevent undesirable situations in which beneficiaries are unnecessarily burdened with an oversupply of donated food items that do not fit their dietary needs.

The second challenge relates to the practical realities of doing business, which at times, runs against the ethos of donation. For instance, two out of the three supermarkets we spoke to are open to donating perishables like fruits and vegetables, but claim not to have the manpower to thoroughly sort through them and check their quality. If there could be solutions to alleviate these business costs, donations for these items could increase, such as tax incentives.

This study also likes to call for a review of NEA's current food donation guidelines. Such revisions could take into account for instance, how certain food items have been safely and successfully donated on the ground, despite the lack of instructions or even non-adherence to what is written. As the case study of State Hotel has shown for instance, surplus cooked food from the buffet tables could be given away securely. Such revisions could act as learning lessons for other similar food establishments.

As the two religious institutions we have talked to have rightly pointed out, the rolling out of the Good Samaritan Food Donation Act should be sensitive and empathetic to the perspectives of end recipients. It should seriously consider their dignity and emotions. This can be done for instance, by framing such an initiative in a way that reduce the gap between the position of a helper and the helped.

After all, as much as this law is being considered in the interest of reducing the amount of food waste Singapore has, it is also one about giving, and sharing.

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