

A Conceptual Study On The Determinants of Food Donors to Donate in Surplus Food Redistribution

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Abstract

The phenomenon of food waste has expressed concern from both national and international authorities while community are hungry. Addressing these issues, most of developed countries focused on surplus food redistribution to protect the environment and help the needy. While the existing literature acknowledged the food donors, the research on the supply chain of surplus food redistribution among food donors is limited. This study investigates the determinants of food donors participate in food donation activities and developed a framework as a guideline for future empirical research.

Keywords: Surplus Food; Redistribution; Food Waste; Food Donors

INTRODUCTION

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In the food industry, waste occurs throughout the supply chain, with an estimated 35% occurring at the point final consumption (FAO 2011, 2013; Lipinski et al., 2013). Reducing food waste is a challenge for food and waste policies. The quantity of food wasted varies between countries, primarily determined by income, industrialisation, and level of development (Abiad and Meho, 2018; Chalak et al., 2016). United Nations Food and Agriculture Organization estimated monthly waste per capita about 25 kilogram in Europe and United States, 18 kilogram in Latin America and 10 kilogram in South and Southeast Asia (Gustavsson et al., 2011). Socio-cultural, economic, and infrastructure factors in food waste management can influence food waste generation throughout the food supply chain (Thi et al., 2015). In the United States, most food waste is generated at the retail and consumption stages (Garcia-Garcia et al., 2015). However, due to a lack of technology, transportation, and expertise in food preservation in Southeast Asia, most food waste is generated during the production stage (Yang et al., 2016). In Malaysia, the average household generates about 0.5kg to 0.8kg of food waste per day (Chien Bong et al., 2017). Food waste accounts for nearly 63.1 per cent of total solid waste components (Karim Ghani et al., 2013). Thus, reducing food waste generated along food supply chains is critical for sustainable food waste management (SFWM). SFWM is a systematic approach in reducing food waste and its impact across the entire food supply chain, from production (agriculture),

manufacturing, distribution and retail, consumption, and final disposal (EPA, 2021). Such efforts are consistent with the Sustainable Development Goals 12 (SDG), SDG Target 12.3 aiming to reduce global food waste at retail and consumption stages by half by 2030 (United National, 2015).

Albeit food goes to waste, it wastes everything that has been invested in its production, including water, land and energy used in its production, processing, and distribution (Thyberg and Tonjes, 2016). In Malaysia, food waste disposal at a landfill is relatively inexpensive and straightforward to implement (Lim et al., 2016). Still, it causes various environmental issues such as groundwater pollution, toxic gas emissions, odour, and leachate (Karim Ghani et al., 2013). In landfills, the decomposing of food waste produces methane, a greenhouse gas that is 21 times more potent than CO₂ in terms of its contribution to climate change (Menna et al.,2018). Furthermore, once the landfill site's maximum capacity is reached, identifying suitable locations for new landfills becomes a severe issue (Mohamed et al., 2017). However, some initiatives should be considered to divert food waste directly to the landfill. The food industry employs redistribution of surplus food to any food bank or charity organisation to achieve sustainable food waste management.

Food redistribution, known as food recovery or food rescue, is one of the essential strategies for commercial food businesses to address food waste as part of the more significant food supply challenge. Collecting surplus edible food and delivering it to charity organisations to feed the community who experience food insecurity would divert the food from being discarded to a landfill (Reynolds et al., 2015). Food redistribution has grown significantly over the last decade (Lipinski et al., 2015). Food redistribution organisations exist in over 25 countries across six continents (Reynolds et al., 2015). However, there is scant research on food redistribution in Malaysia. Without understanding the motivations and outcomes of food redistribution organisations, they cannot be developed or improved as a commercial food waste reduction strategy. This research is a component of a larger research project that investigates the impact of Malaysian food redistribution organisations and the experience of all stakeholders involved in food redistribution, including food industry donors, staff and volunteers at food redistribution organisations and charity agencies, and food recipients.

On the other hand, this study is concerned with a single stakeholder group: food industry donors. Numerous assumptions have been made about why food businesses

donate their excess food, but this has yet to be empirically tested. Redistribute surplus food through donation has significant consequences for the food donors, the food recipients, the environment, and society. Thus, this paper aims to establish a conceptual framework that motivates the food industry to donate surplus food.

METHODOLOGY

A thorough literature review on articles published between the year 2002 until 2021 was conducted for this paper to gather relevant findings using appropriate keywords. Science Direct, Emerald Publishing and Google Scholar were among the search engines to find articles for the literature review. The following keywords were used in the literature search: Retailer*, "Food Donors", "Surplus Food", and "Food Waste". The result of the existing literature search and analyses exposed a plethora of potential variables that could be linked to developing strategies for targeting and motivating people in the food industry to become food donors.

RESULT AND DISCUSSION

The comprehensive literature review discovered considerable evidence demonstrating the potential variables of the decision to donate and drivers that motivate people in the food industry to be food donors. The articles in each category were then examined further to produce a conceptual framework. A conceptual framework is an analytical tool designed to construct conceptual distinctions and organise ideas that have several variations and contexts (R.Yacob et al., 2017), as shown in Fig.1. The proposed conceptual framework involves significant variables that drive food donors to donate. The variables are four (4) items: knowledge, organisational culture, financial condition, and government policy and practices. The first variable is knowledge. Knowledge consists of five (5) variables; food donors aware of Sustainable Development Goals (SDG) and concern with food security motivated to donate surplus food to the food bank (Bekkers and Wiepking, 2011b). Second variable, the social responsibility for the people in need does influence donations from food retailers (Schuyt et al., 2004). Third variable, it is believed that retail company deserved to get public recognition if they donate more food inventory (Bekkers and Schuyt, 2008). Fourth variable, the donation experience drives food donors to donate again (Guy and

Patton, 1989). Lastly, variable of concern towards the environment, such as diverting food surplus from landfills, could induce donating to the food bank (Goodman-Smith, 2020).

On the other hand, organisational culture involves five (5) variables; first variable some food donors donated to maintain their brand's reputation (Bekkers and Wiepking, 2011c). Second variable, altruistic feelings among food donors drive charitable donations (Germain et al., 2007). Third variable, an empathy towards the recipient influence food donation (Lee and Chang, 2007). Fourth variable, obligated feeling to help marginalised communities help food donors to donate (Hibbert and Horne 1996) and last variable, food donors who have excellent networking and are loyal to a food bank motivate to donate (Sargeant, 1999). Moreover, the financial condition comprises two (2) variables. First variable, retail stores which become regular donator, has financial stability in their corporations (Guy and Patton, 1989). Second variable, food retailers who save money on disposal and landfill fees when donating (Baglioni et al., 2017).

Besides, the last driver for food donors to donate is government policy and practices. The government policy and practices include liability legislation provide protection to donors (Gruber, 2016). Second, tax incentives as one way to encourage donors to donate food inventories. Incentives received on waste tax-deductible encourage retailers to donate surplus food (O'Connor et al., 2014). Next, a food donation policy specifically on safety, nutrition and health are essential to ensure that all donated food is in good quality and safe (foodbanking.org). Lastly, government grants for food recovery initiatives, infrastructure, and organizational support can assist existing donations. Grants can also support innovations and emerging technologies that will improve the efficiency and sustainability of food donation. However, absence of knowledge and guidance in many countries to apply for food safety on donations, has become a hindrance. Critics that little incentive given aims to change food donors' behavior in redistributing surplus food cannot be ignored (Midgley, 2014) and the importance of government aid contributes to the cohesive surplus food redistribution activities (Facchini et al., 2018) Yet in Malaysia, the deficiency of government policy and practices to support redistribution activities and encourage more donors to participate. It can be summarised that government assistance should be prioritised by considering relevant variables. Therefore, induced the feeling of donations among food donors.

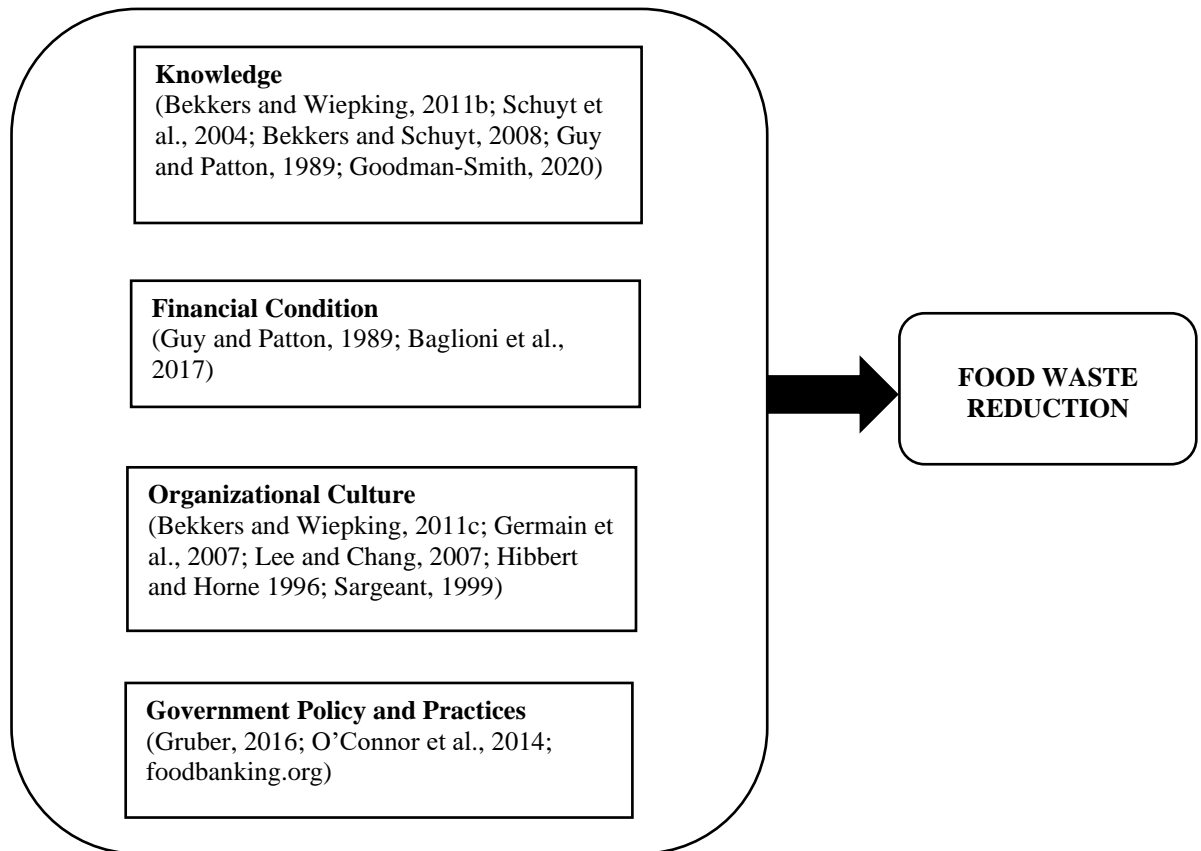


Figure 1: *Proposed Conceptual Research Framework*

CONCLUSION

This study presented an overview of donor's motivation for donating surplus food. The findings of this review led to the development of a conceptual framework comprised of four (4) components, including Knowledge, Financial Condition, Organizational Culture and Government Policy and Practices. However, empirical research is recommended to analyse and critique.

The research focuses on the concept of ideas for food donors to donate. The analyses rely on previous research and literature, which have provided valuable insight to scholars and researchers. Future research can replicate the proposed conceptual framework to develop an analytical model that can be used as a guideline for analysing the data. The concept is still relatively new, but it has the potential to expand in the future. As a result, to achieve the research objective, the participant's prospect will be from a retail company that involved a donation of surplus food to the food bank program.

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