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The future of charitable alternative food networks in the UK: an investigation into current challenges and opportunities for foodbanks and community markets

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This study examines the potential of charitable alternative food networks (ANFs), specifically community markets, as a complimentary solution to existing food aid efforts in response to food insecurity. While foodbanks play a crucial role in providing emergency food aid, they often face challenges in terms of supply shortages, limited food variety, and perpetuating dependency on food aid. Moreover, foodbanks may only offer temporary relief without addressing the root cause of food insecurity. Community markets, on the other hand, adopt a social economy approach and aim to empower local communities by providing affordable food options to all community members. These markets operate on a different business model than foodbanks and offer additional vouchers for those who cannot afford to purchase food. Community markets also focus on promoting social and economic goals and often provide additional services and activities within the community centers. By assessing the perspectives of beneficiaries of foodbanks and community markets, the paper examines the dimensions of food security (availability, access, utilization, and stability) in the context of both charitable ANFs and highlights the potential of community markets and foodbanks to address these dimensions. While there is ongoing debate about categorizing food aid programmes as ANFs, both share the goal of reducing food insecurity and promoting sustainable and equitable food systems. Ultimately the paper argues that community markets offer a more sustainable and empowering approach to addressing food insecurity by addressing its underlying causes and promoting community resilience.

KEYWORDS

food security, food poverty, foodbanks, community markets, food aid programme, social sustainability, alternative food networks, sustainable business transformation

1. Introduction

The Food and Agriculture Organization (FAO) defines food insecurity as the lack of “regular access to enough safe and nutritious food for normal growth and development and an active and healthy life” (FAO, 2020). The [World Food Programme \(2022\)](#) estimates that ~828 million people go to bed hungry every night, thereby, not having access to adequate safe and nutritious food. While acute global food insecurity has increased from 135 to 345

million since 2019, ~49 million people across 49 countries have experienced famine-like conditions in 2022. To tackle this issue of food insecurity, many economically developed countries have started relying extensively on charitable food aid programmes that provide emergency food parcels to people in need. The most commonly utilized charitable food aid programme is foodbanks (Middleton et al., 2018; Lambie-Mumford, 2019). According to a report by YouGov Plc (2022), 18.4% of British households experienced moderate to severe food insecurity in September 2022 while one in four households with children had experienced food insecurity between the first 2 weeks of lockdown and September 2022. The survey further indicated that households that were food insecure were more likely to be affected by rising fuel prices—increasing energy costs led to 59.5% of households using less appliances for cooking, 41.1% eating their meals cold, 18% washing dishes in cold water, and 6.8% turning appliances such as refrigerators off. 68.1% of households in the UK were worried about the impact of the cost-of-living crisis on their ability to be food secure and therefore to overcome household food poverty, many households access foodbanks.

1.1. Foodbanks

Although foodbanks around the world play a critical role in providing food assistance to people in need, the specific ways in which they operate vary based on the local context and available resources. For example, while foodbanks in the US act as storage units that distribute food to food pantries, often through a network of smaller agencies such as places of worship and community centers (Santini and Cavicchi, 2014; Charania and Li, 2020; Byrne and Just, 2022), foodbanks in the UK usually have a more centralized distribution system (i.e., interacting directly with beneficiaries), resembling American and Canadian food pantries (Loopstra et al., 2015; May et al., 2020). Foodbanks in Europe distribute food through a variety of channels—while some utilize their own warehouses and distribution centers, others rely on partnerships with charities and social services (European Food Banks Federation, 2022). The size and scale of food banks also differ between countries—the largest food bank in the US, the Houston Food Bank, served more than 150 million meals in the 2021 financial year (Houston Foodbank, 2022), while the largest network of food banks in the UK, the Trussell Trust, distributed ~2.1 million emergency food parcels to people in crisis in the same period (The Trussell Trust, 2022c). In 2021, the European Food Banks Federation (FEBA) fed ~11.8 million individuals across 29 European countries (European Food Banks Federation, 2022).

According to The Trussell Trust (2022a,b,c), 2.2 million emergency food parcels were distributed across the UK by Trussell Trust foodbanks to individuals and families in need between April 2021 and March 2022. In addition to the ~1,400 Trussell Trust foodbanks, the British population also relies on emergency food parcels distributed by a network of at least 1,172 independent foodbanks (a part of the Independent Food Aid Network—IFAN; Irvine et al., 2022). A large proportion of the beneficiaries accessing foodbanks in the UK were in receipt of some form of state benefits such as Universal Credits (Lambie-Mumford, 2019;

Independent Food Aid Network, 2022; The Trussell Trust, 2022a). While over half of the households on universal credit experienced some form of food insecurity in 2022 (YouGov Plc, 2022), 94% of the foodbanks associated with IFAN reported increased utilization of their services from other disadvantaged individuals (Independent Food Aid Network, 2022). The adopted political-economic trajectory of social policy change has contributed to increased austerity measures which when coupled with welfare reform, has resulted in foodbanks being embedded within local welfare landscapes (Lambie-Mumford, 2019).

Foodbanks rely mostly on donations made by individuals, local fast-food outlets, and retail stores (Bennett et al., 2021). However, even before the current financial crisis, demand at foodbanks often outstripped supply (Iafrazi, 2016, 2018; Gharehyakheh and Sadeghiamirshahidi, 2018). The current situation propelled by an incorrect assessment of the nature and consequences of shocks during a period of worldwide instability, has caused a decrease in the volume of food donated (Gorb, 2022; The Trussell Trust, 2022c). This has resulted in shortages in food supply, inflation leading to an increase in prices of food, and people being unable to afford basic necessities such as food and energy (Harari et al., 2022; Reis, 2022).

Research investigating the limitations of food banks has been ongoing for over two decades (Poppendieck, 1999), although it has gained momentum recently (e.g., Loopstra et al., 2015; McIntyre et al., 2016; Bennett et al., 2021; Byrne and Just, 2022; Dekkinga et al., 2022; Etherington et al., 2022; Williams and May, 2022). Current studies on foodbanks debate their impact on public health (e.g., Garthwaite et al., 2015; Garthwaite, 2016), their correlation with religion, beliefs and religious organizations (e.g., Cameron, 2014; Allen, 2016), their impact on social policy (e.g., Lambie-Mumford, 2019; Bramley et al., 2021), and their impact on an individual's identity, self-esteem and dignity (Hicks-Stratton, 2004; Soja, 2010; Booth, 2014; Pine, 2022; Riol and Robinson, 2022). The limitations of foodbanks can have significant consequences, particularly for vulnerable populations who rely on food aid programmes.

The inability of such programmes to empower beneficiaries to become self-sufficient leading to dependency among beneficiaries and long-term reliance on food aid has been highlighted as a critical drawback (Lentz et al., 2005; Garthwaite, 2016). Mould et al. (2022) emphasize the phenomenon where several governmental bodies are relinquishing their obligations to adequately allocate funds toward social welfare by expecting mutual aid programmes (e.g., food aid programmes) to tackle national welfare-related challenges without support from the state. Additionally, the reliance of food aid programmes on food donations leads to limitations in the variety and quality of food provided (Tarasuk, 2014; Drewnowski et al., 2020) resulting in poor nutrition and health outcomes (e.g., diabetes, asthma and obesity) among adults and children (Cook et al., 2004; Garthwaite et al., 2015; Loopstra and Lalor, 2017; Nguyen et al., 2017; Drewnowski, 2022).

Furthermore, some studies have associated food aid programmes with stigma and shame (Garthwaite, 2016; Middleton et al., 2018), while seldom addressing the root causes of food insecurity such as racism (Bowen et al., 2021), poverty (Drewnowski, 2022), inadequate access to education

(Bowden, 2020), and lack of employment opportunities (Loopstra et al., 2019). Consequently, food aid programmes may only provide temporary relief to hunger without addressing the underlying systemic issues that perpetuate food insecurity. Thus, while food aid programmes that rely on the foodbank model can provide relief to vulnerable populations, they should be implemented alongside other interventions to address the underlying causes of food insecurity.

1.2. Community markets

To overcome the pressures faced by foodbanks and their limitations in the UK, an alternative charitable food aid model based on the principles of a social economy, called *community markets*, has been adopted by local communities and community hubs. The purpose of these community food enterprises is to empower local citizens through “collective mobilization of local resources” (Sonnino and Griggs-Trevarthen, 2013, p. 272). The principles of community markets closely align with those of Community Food Systems (CFS) which is, “to oppose the structures that coordinate the current food system and to create alternative food systems” (Allen et al., 2003). Community markets demonstrate “the feasibility of a socially needs-based, humane and human-centered economy within contemporary capitalism” (Hudson, 2009, p. 507). They often adopt a different business model to that implemented by foodbanks. Access to such markets is not means-tested—i.e., all people from a local community, regardless of their socio-economic status, are able to take advantage and are not required to obtain an agency referral, unlike food banks. However, those who are unable to purchase food even at subsidized prices can be referred and are given a voucher with a predetermined value based on household size. While there is no standardized operational model for community markets, most follow an operational design that mimics a supermarket—i.e., beneficiaries are allowed to choose items (food, toiletries, and other household essentials and meats) at subsidized rates. Charitable food distribution networks such as FareShare are subscribed to using revenue generated from beneficiaries, allowing for a regular supply of food to be received. Additionally, community markets receive donations from supermarkets, local producers and other local businesses such as alternative meal providers. Community markets are often located within community centers. Hence, in addition to markets, these centers also provide additional services (e.g., cooking, sewing, chair yoga, and music classes). This allows engagement by a larger section of the local community. Much like foodbanks, community markets prioritize social, and economic goals over profit generation. Additionally, community markets engage with local businesses (i.e., reduced food miles) to reduce food waste and carbon footprint (e.g., distribution of excess food to local fire and police services), support local producers, and promote healthy food, community engagement, and education. This highlights the potential of community markets to contribute toward a reconstructive green economy (Smith, 2005, p. 275; Golob et al., 2009).

1.3. Dimensions of food security

Food poverty refers to individuals’ and households’ inability to obtain an adequate nutritious diet whilst maintaining dignity (Dowler, 2003), and is closely linked to an individual/household’s economic standing, where the two create a vicious cycle with each fueling the other (Siddiqui et al., 2020). Food insecurity is a broader concept that encompasses physical and economic access to food, as well as the availability, quality, and safety of food, which can lead to inadequate or insufficient food consumption (O’Connell et al., 2019). Despite the intention of AFNs to address the issue of food insecurity (Cerrada-Serra et al., 2018), the extent to which they fulfill the four dimensions of food security, namely availability, access, utilization, and stability, as outlined by FAO in 2008, remains unclear. These dimensions of food security are applicable worldwide and provide a framework for evaluating the effectiveness of AFNs. *Food availability* refers to the physical presence of food within a certain geographic area. It addresses the supply chain aspect of food security (World Food Summit, 1996). When applied to the AFN context, it would measure the amount of food made available to people within the food aid system. This would include the quantity and variety of nutritionally balanced food available for distribution, as well as the frequency and consistency of food donations. *Food access* refers to the physical and economic access to food that encompasses individuals and households’ ability to acquire and consume adequate, nutritionally balanced, and diverse diets (Dutko et al., 2012). In the AFN context, this would include physical and economic access to the food provided by the AFNs. Physical access refers to the proximity of the AFNs to beneficiaries, and the ease of transportation to reach it. Economic access refers to the affordability of the food provided by the AFNs. This implies that even if the AFN provides nutritious food, if beneficiaries cannot afford transportation, energy (to cook and store food), or if the food is not culturally appropriate, it is not accessible to them. *Food utilization* refers to the ability of households and individuals to utilize food effectively once it is available and accessible. It includes the knowledge and skills to prepare and store food safely and use it in a way that promotes good health and wellbeing (Food Agriculture Organization, 2003). In the AFN context, it would encompass having access to cooking facilities, availability of necessary resources such as utensils and ingredients, and the knowledge to prepare and store food safely. In addition to providing food, AFNs may need to provide additional support, where needed, in the form of cooking classes, recipes, and workshops on writing grants to secure funding for purchasing cooking equipment. *Food stability* refers to the ability of individuals and households to consistently access sufficient quantity and quality of nutritious and diverse food over time, without experiencing food insecurity (Food Agriculture Organization, 2008). In the AFN context it refers to the ability of AFNs to provide food assistance on a regular and reliable basis while prioritizing nutritious and healthy food options and building resilience within communities such that they can withstand shocks and stressors (e.g., inflation) that may affect food access and utilization.

By drawing on the lived experience of beneficiaries of food aid programmes, this paper aims to explore and evaluate community

markets, an alternative community feeding programme, as a potential complementary solution to an existing and widely utilized food aid effort, foodbanks, to address the multidimensional aspects of food insecurity in the UK.

1.4. Alternative food networks and food aid programmes

Alternative food networks (AFNs) are a range of food systems that aim to offer an alternative to the mainstream industrialized food system by providing more ethical, sustainable, and equitable food options. These diverse systems have emerged in response to the unsustainable practices within traditional industrial food systems (Holloway et al., 2006; Kizos and Vakoufaris, 2011) which have contributed to multifaceted contradictions such as malnutrition, ecological and livelihood crises (Goodman et al., 2012). According to Feenstra (1997), Jarosz (2008), and Ribeiro et al. (2021), AFNs are often associated with values such as social justice, ecological sustainability, healthy eating and a closer relationship between producers and consumers. These values are supported through various strategies such as farmer's markets, community supported urban agriculture, and food cooperatives (Stella et al., 2022).

There is a growing body of literature suggesting that foodbanks and other charitable food aid programmes can be categorized as alternative food networks (AFNs; DeLind, 2011; Brinkley, 2018). However, this categorization is not without controversy as some scholars argue that food aid programmes, especially foodbanks, are fundamentally different from other forms of AFNs due to their reliance on surplus food donations rather than direct sourcing from farmers and other local producers (Lambie-Mumford, 2013; The Trussell Trust, 2023). Despite this debate, there are similarities between food aid programmes and AFNs in terms of their shared goals of reducing food insecurity while ensuring environmental and localized socio-economic impacts using hybridized and conventional systems through advocacy of collective action at different levels (Goodman et al., 2012; Midgley, 2014; van der Horst et al., 2014; Cerrada-Serra et al., 2018; Michelini et al., 2018). Furthermore, the rise of alternative models to the foodbank model, such as community markets, to supplement traditional operations and provide sustainable solutions to food insecurity (Maric and Knezevic, 2014; Michelini et al., 2018; Knezevic and Skrobot, 2021), further highlights the association between food aid programmes and AFNs. Therefore, it is reasonable to consider food aid programmes, such as foodbanks and community markets, as types of AFNs and to evaluate their effectiveness in addressing food insecurity, as proposed in this study.

2. Methods

2.1. Sample characteristics and participation

Four senior leaders, each from a different charitable AFN, received information about the study via email between February

and April 2022. Upon agreeing to be involved in the study, senior leaders distributed flyers with information about the research to stakeholders. These included beneficiaries (i.e., users accessing services provided by charitable AFNs), volunteers, employees and senior leaders. All participants were informed that their decision to/not take part in the study would have no impact on their association with the organization. Participants were recruited between May and July 2022.

2.2. Recruitment

Recruitment philosophy was inspired by the approach proposed by Urban and van Eeden-Moorefield (2018) and Creswell and Clark (2017) who state that individuals considered best qualified to address the research question appropriately should be recruited in a study. As the roles of stakeholders associated with charitable AFNs varied, a sampling strategy suggested by Wilson et al. (2015, p. 2,131) was adopted. Beneficiaries of food aid programmes with varied but relevant experiences of utilizing foodbank and community market services were recruited from four food aid programme—three foodbanks (Leicestershire, Shropshire, and Dorset) and one community market (Leicestershire). Participants included beneficiaries who accessed AFNs for food as well as other services (debt management and community classes) offered by the service provider.

To ensure a good working knowledge of charitable AFNs, beneficiaries with an active association with a charitable AFN were recruited for the study. Recruitment was through voluntary response sampling, enabling the involvement of participants who were willing to share sensitive information of their own accord (Murairwa, 2015). Table 1 highlights details of participants' background and association with charitable AFNs.

2.3. Data collection

A semi-structured interview schedule was developed and reviewed by both authors. It consisted of three sections: Section 1 included demographic questions that explored participants' financial status (i.e., employment status, debt and amount of disposable income); Section 2 explored participants' experience with the charitable AFNs; and Section 3 consisted of questions associated with the four dimensions of food security.

A total of 38 semi-structured interviews ($n = 38$) were carried out between June and July 2022. Interviews lasted between 30 and 45 min and were digitally recorded.

2.4. Data analysis

Recorded interviews were de-identified and transcribed verbatim. Deidentified transcripts were imported into a data analysis software package, QSR NVivo (Version 12). Using an inductive thematic coding approach as described by Braun and Clarke (2006), the transcribed interviews were analyzed to facilitate the identification, analysis and reporting of patterns

TABLE 1 Study participants' backgrounds and associations with charitable AFNs.

Stakeholder type (employment)	Number of participants	Income source (left over after paying energy bills ^a)	Income left over after paying energy bills and rent/mortgage installments (foodbanks)	Income left over after paying energy bills and rent/mortgage installments (community markets)
Beneficiary [retired]	4	Pension	£0	<£100
Beneficiary [not working due to disability]	8	Universal Credits	£0	£0–£40
Beneficiary [unemployed]	8	Universal Credits	£0	£0–£40
Beneficiary [volunteers at other charities]	6	Universal Credits or Partner	£0	£0
Beneficiary [working full time]	5	Primary jobs	£0–£150	£200–£3,000 ^b
Beneficiary [Zero-hour contract]	7	Primary job and Universal Credit	£0–£20	NA

^a As of summer 2022.

^b This was a dual income household with both adults in full time jobs.

TABLE 2 Coding framework.

Themes	Macro-code	Micro-codes
Food availability	Foodbanks Community markets	Volume of donations Fruits and vegetables
Food access	Foodbanks Community markets	Accessibility Social stigma Referral process Access to other services
Food utilization	Foodbanks Community markets	Management of nutritional intake Compatibility with cooking equipment
Food stability	Foodbanks Community markets	Stable access to food

within the data (Flick, 2014). The adoption of this method allowed for the grouping of themes to make comparisons between the data more straightforward. A preliminary list of codes was developed by the first author. The codes were then reviewed by the second author. While both authors are public health researchers, the first author has experience in food security and sustainability and the second author has experience in nutrition particularly as it relates to food security. Upon identifying the preliminary list of codes, the authors exchanged and reviewed the outputs. Any disagreements were resolved through discussion until consensus was reached. The preliminary list of codes and the coding framework are highlighted in Table 2.

2.5. Ethics approval

This research received approval from the relevant ethics committee where the two authors were employed at the time of data collection. Written informed consent was obtained from all participants.

3. Findings

The subsequent section presents the findings of the investigation into the effectiveness of foodbanks and community markets in addressing food security in the UK by exploring the lived experience of beneficiaries.

3.1. Food security, foodbanks, and community markets

Much like food (in)security, food poverty can be associated with the FAO's four dimensions as defined in 2008. This section discusses the ability of foodbanks and community markets to address food poverty, and the four dimensions of food security.

TABLE 3 Differences between social supermarkets and community markets.

	Social supermarkets	Community markets
Concept	Source surplus food (e.g., damaged packaging and missing/incorrect labels).	Prioritize local sourcing, sustainability, and community engagement.
Target audience	Individuals and families on low incomes and/or are facing food and financial insecurity.	Open to the entire community including individuals with different income levels.
Business model	Non-profit organizations Rely on partnerships with food suppliers, financial donations, and grants for sustenance.	Operate as cooperative or community-led initiatives with the involvement of local producers, industries, and vendors. May rely on membership fees.

Sources: Field (2009), Holweg et al. (2010a,b), Renobales et al. (2015), Knezevic and Skrobot (2021), and Nkegbe and Mumin (2022).

It is important to note that specific characteristics and practices of community markets and social supermarkets may vary depending on the context and region in which they operate.

3.1.1. Food availability

Beneficiaries highlighted that the cost-of-living crisis had forced many UK-residents from low- and middle-income households to rely heavily on food aid programmes.

Families needed to visit during very specific times to ensure food availability. If a narrow window was missed, they often left the charitable AFN without adequate food, thereby forcing them to spend money on cheap and high fat-high sugar foods in supermarkets. An increasing reliance on such programmes coupled with a reduction in the quantity donated resulted in furthering the food poverty and insecurity issue:

“It all depends what time you come really because if you come just after a delivery [of donations] or very early, you will have more food available. However, if you come at any other time once a lot of people have already been, the stock levels are going to be low.”—Beneficiary 9

3.1.1.1. Foodbanks

Many foodbanks received food through donations made by the public. With increasing food prices, the quantity of food donated decreased in 2022 (The Trussell Trust, 2022b) which led to a depletion in access to foods such as tinned vegetables and meat:

“Stock levels vary on the day because it depends on what they [community feeding programmes] get in. By the time I visit the food hub... the food is virtually gone, the fresh stuff, in the fridge, meat and stuff. I know they are all donations, so it all depends on what they’re getting...”—Beneficiary 8

Beneficiaries referred to foodbanks did not visit with the expectation of receiving vegetables and fruits as access to such products was often limited. In addition, they were not always able to purchase these from budget supermarkets as they are relatively more expensive. Consequently, fruits and vegetables were commodities seldom consumed:

“We don’t always get vegetables and fruits here. The amount has reduced since everything has become expensive. I guess it makes sense as people will struggle to donate these items. I go to the supermarket to see if they have cheap vegetables and fruits for my children. However, sometimes I replace it with a cheaper product [alternative] like tinned or packet food.”—Beneficiary 14

3.1.1.2. Community markets

Beneficiaries visited community markets to purchase a variety of food. However, fresh fruits and vegetables, and frozen meat were a priority as these items were deemed to be nutritious and expensive in supermarkets and unavailable in foodbanks:

“I come here mostly for the carrots, potatoes, tomatoes and cucumbers. Most times they have these in stock. Sometimes I also buy pasta and bread. It depends on what they’ve got. Sometimes they have meat in the fridges.”—Beneficiary 1

“I suppose really, it’s the fresh meat which helps because it is cheaper here and obviously, I would buy it here. It also reduces the amount I need to buy at supermarkets.”—Beneficiary 8

3.1.2. Food access

3.1.2.1. Foodbanks

Foodbank beneficiaries expressed gratitude for receiving free food in the form of food parcels, even though they felt the loss of dignity due to the inability to choose the food items they received. Nonetheless, beneficiaries found that food banks provided greater accessibility to food than sources such as supermarkets:

“I am grateful for what the foodbank gives me as it means that I have some food for myself and my family, especially when I cannot afford food from elsewhere. I don’t know what I would have done without this...I cannot afford to shop at supermarkets...”—Beneficiary 36

Nevertheless, beneficiaries of foodbanks stated that there was a social stigma associated with accessing food in the form of food parcels as it was free and distributed as pre-packed parcels. Many beneficiaries felt “looked down upon” by society and were “ashamed” to mention that they received food parcels from foodbanks:

“Well, it’s a bit of a stigma. Sometimes it’s very difficult [to visit a foodbank]. We’ve always worked and now all of a sudden, we need to get free food. I feel ashamed to tell my friends...”—Beneficiary 17

Referrals played an important role in ensuring access to charitable AFNS, both foodbanks as well as community markets. Referrals were often in the form of food vouchers or online forms prescribed by referral agencies. Beneficiaries perceived receiving

referrals as a complicated process due to: (1) the lack of information on referral agencies; and (2) a lack of awareness about the need for referrals in most cases.

Despite food banks limiting the number of visits by an individual or household, some beneficiaries found a loophole in the referral process by receiving multiple referrals from different agencies, which allowed them to access food from different food banks and receive more than one food parcel per week:

“Currently, I am using two foodbanks around Leicester city. I just go to two different agencies, my doctor and housing officer, to get two separate referrals. . . This helps me feed my family for a longer period.”—Beneficiary 12

Beneficiaries visited foodbanks not just for access to food, but also for information on other agencies that could provide additional help such as debt management. However, advice on debt management was not a service associated with community markets:

“Once I get food from here [foodbank], I visit the person offering debt management advice to get help with paying off outstanding bills. The staff here are very informative and often share information about other places where I can get help. I can get in contact for fuel and food vouchers for like Asda and things like that so you can get fresh food—this is amazing.”—Beneficiary 19

In addition, foodbanks added social value as they helped beneficiaries meet other people in the same financial situation as themselves:

“... Whenever I have no work, I always come here and collect whatever food I can get... It helps to know that there are other people experiencing similar difficulties, and that I am not the only one who is unable to feed my family sometimes.”—Beneficiary 13

3.1.2.2. Community markets

Although community markets receive donations of fresh fruits, vegetables and dairy, physical access is often limited due to unsuitable storage conditions:

“... there's not a lot of fresh things mainly because there is nowhere to store it for too long. A few weeks ago, I came and there was just lettuce, so I could not get any fresh products... I have never seen fresh cold milk here...”—Beneficiary 10

Community markets offers food at a subsidized rate, enabling beneficiaries to purchase a wider range of items within their limited budget:

“I can buy different food and other household essentials here [community market] although I come here on a budget... If I go to a supermarket, I will hardly get even half the shopping done... I have accessed food from foodbanks, but the variety was nowhere close...”—

Beneficiaries preferred the approach adopted by community markets where they had the option of choosing food and paying for goods as opposed to being given a pre-prepared parcel for free

as not only did they get to choose the products based on their preferences, but also felt a sense of dignity in not being handed out free items:

“...I can choose fresh and healthy food from here [community market]. I can buy what I will eat. However, I would not be able to choose at a foodbank and would end up wasting food and not eating things I did not like.”—Beneficiary 9

“I very much prefer being able to choose my food instead of being given parcels like at XY foodbank, It just feels dignified to be able to pay for goods, even if it is at subsidized rates, and then being able to choose what I want based on what I would like to eat.”—Beneficiary 17

As access to community markets is not means-tested, people from across socio-economic backgrounds visited the markets. This often led to people from different walks of life interacting with each other. They valued the “sense of community” and other services offered and developed new friendships and social circles by visiting the community hub while attending classes and the market. It also helped to combat loneliness and feelings of isolation:

“The other thing that being at SS1 [community market] is that it has really opened my eyes to different people who come for different reasons, but they are not what I expected. This is going to sound very class conscientious, but I thought that people who would come to the market. . . would be very needy, not only financially but mentally as well but it isn't like that... I have realized that all of us could go through similar mental health-related issues regardless of our income level...”—Beneficiary 6

“You get a sense of community here... because they [food market and community hub] serve the local community. If we lost this [market], it would be a shame because they bring so much to our lives. My daughter comes here for the playschemes. Because I'm a single mum it just gives me that bit of a break in holidays. It will be a shame if it ever goes. Food-wise its somewhere I can come and get some if I'm short 1 month. I know I can come here and get some good quality food for less than what I can get in the shops.”—Beneficiary 1

Limited opening hours was highlighted as a key issue as this made it difficult for beneficiaries with busy schedules to access community markets:

“I wish the market was open on more days. By the time I finish work, I am hardly able to visit the market before it closes... it is only open 2 days a week, that too only for a few hours each day...”—Beneficiary 6

3.1.3. Food utilization

With increasing food prices, many households did not have much access to nutritional diversity. Adults had further limited access to healthy nutritious food as in many households, they had no option but to eat food left-over from their children's plates, with some adults skipping meals to feed their family. This was a common theme across foodbanks and community markets:

“There have been a few times [since the prices have gone up] that I’ve had had little and whatever was left in my daughter’s plate. Because as far as I’m concerned, she has priority over me. I always make sure she’s fed. I cannot afford to waste money.”—Beneficiary 16

Although most adults were cognizant of the importance of nutritious meals, many felt that it was something they could not afford to prioritize:

“Nutrition is an important concept in my family. I have been taught about the importance of eating different food groups... I cannot afford to buy fresh fruits, vegetables and fish as their prices have gone up a lot. This is in addition to having to pay for increased electricity and gas bills.”—Beneficiary 15

It was highlighted that while increasing food prices had directly impacted the amount and type of food accessible to the average UK household, the cost-of-living crisis had flexed cooking habits. Increasing electric and gas (i.e., fuel) prices required many households to purchase foods that could be prepared without the use of a hob and/or oven. The sales of air fryers and slow cookers has increased as they utilize less electricity (Al-Habaibeh, 2022). Subsequently, this has led to families accessing community markets purchasing foods that could be used in this way:

“...I don’t buy half as many ingredients as I used to from here [community market]... I only use my slow cooker once rather than putting the oven on every day and I have bought an air-fryer as well...”—Beneficiary 4

3.1.3.1. Foodbanks

Beneficiaries with co-morbidities such as hypertension and diabetes often struggled with food received in foodbank parcels as they found it difficult to manage their salt and sugar intake:

“A lot of the tinned foods is quite high salt which I can’t take at the moment because of certain health issues that I suffer from.”—Beneficiary 20

Limited food access and availability in foodbanks led to an over-reliance on carbohydrates due to their relatively lower costs and longer shelf lives but also compounded a diet anchored in monotony:

“Sometimes there is enough options, but very often, the options are the same. This can be good for a while as it helps me decide what I am going to eat, but it gets boring. I cannot do anything about it as it comes in my food parcel as that is what foodbanks get donated.”—Beneficiary 23

The lack of beneficiary choice regarding food items in food parcels at foodbanks resulted in some items being incompatible with air fryers and kettles, leading to non-utilization due to the inability of affording to cook them:

“There are times when I am unable to cook the food that I get in parcels because I only have a kettle and a small air fryer at home. I cannot make a decent meal using the ingredients I get given in them...”—Beneficiary 35

3.1.3.2. Community markets

The ability to choose their own food at community markets allowed beneficiaries to have more autonomy and select foods more in tune with their lifestyle. Cooking classes were conducted twice a week by volunteer chefs who taught beneficiaries how to cook a meal with ingredients available in the market on a particular day:

“I particularly enjoy learning how to cook with what is available in the market on that day... It is helpful that these are free to attend and that the chefs are based within the market on both days...”—Beneficiary 5

3.1.4. Food stability

Shocks such as economic and/or climate crises and cyclical events (seasonal food insecurity) should not risk access to and availability of food (Food Agriculture Organization, 2006).

3.1.4.1. Foodbanks

Stable access to fresh food was identified as a key issue for food stability in foodbanks with increasing food prices leading to reduced donations identified as a key contributory factor:

“I heard from the volunteer team that the amount of donations they receive has been dropping since everything started becoming expensive... it makes sense as ever since this problem, the variety and size of the food parcels has not been consistent.”—Beneficiary 31

3.1.4.2. Community markets

While community markets had a relatively smaller issue related to food, reliable access to fresh food was identified as a key challenge:

“Sometimes it’s a struggle, especially having fresh fruit from here [community market]... however, other types of food are fairly consistently available...”—Beneficiary 3

4. Discussion

While the economic unsustainability of foodbanks and charitable giving is established in prior research, the ability of AFNs to address all four dimensions of food security is seldom explored. The most commonly discussed charitable AFN other than foodbanks is social supermarkets, with most papers evaluating the advantages and efficiency of such enterprises (e.g., Holweg et al., 2010a,b; Klindzic et al., 2016; Wills, 2017) (Table 3).

This research expands the debate and presents data evaluating the effectiveness of two charitable alternative food network (AFN) models, foodbanks and community markets, to address the problem of food insecurity in the UK. It has explored the lived

TABLE 4 Strengths and challenges associated with foodbanks.

	Strengths	Challenges
Food availability	Affordable food: Due to relying on a subscription	Limited food variety: Reduction in amount of food donated has led to a depletion in the quantity and variety of nutritionally balanced food in food parcels. Inconsistent supply: Fruits and vegetables are seldom available in food parcels. Restrictions on frequency of visits: Trussell Trust and Independent foodbanks had varying policies on the number of visits allowed to foodbanks, leading to restriction on beneficiaries' access to emergency food.
Food access	Physical access to free food helps beneficiaries feel less worried about hunger. Partnership with other services: Foodbanks often partner with financial and debt management charities and services, providing clients with additional resources. Building community: Foodbanks add social value as they help beneficiaries meet other people in the same financial situation as themselves, reducing social isolation.	Referral process: The need for a referral from a third-party agency creates barriers for those who are not aware of the referral process or have difficulty accessing referral agencies, thereby, limiting accessibility of foodbanks. Lack of uniformity: Loopholes in the referral process and a lack of uniformity and transparency meant that some beneficiaries accessed more than one foodbank within a local area. Geographic limitations: Beneficiaries who lived in areas without a local foodbank service needed to travel longer distances using public transport or a taxi due to the creation of food deserts. Social stigma: Beneficiaries experience feelings of shame and embarrassment due to the perception that they are unable to provide for themselves and their families, and as they were not afforded the ability to choose food.
Food utilization	Nutritional support: Food parcels distribute a variety of food items, with many foodbanks ensuring a nutritional balance.	Nutritional imbalance: Limited availability of certain food groups and limited access to energy and cooking equipment forces beneficiaries to over-rely on carbohydrates leading to a diet anchored in monotony. Public health: Prepacked parcels has the potential for causing adverse health impacts on beneficiaries with comorbidities.
Food stability	Short-term relief: Stability in the short-term provides many beneficiaries with the assurance that households have access to food and other household essentials during times of crises.	Community resilience: The focus on short-term support fails to address long-term food poverty and build a community resilient to food and financial insecurity. Reduced donations: Donations made to foodbanks are unpredictable due to their dependence on donations.

experience of beneficiaries and placed significant emphasis on giving a voice to a group of individuals whose perspectives are often underrepresented and seldom heard.

Evidence from this study shows that unlike other charitable AFNs such as community markets, beneficiaries of foodbanks felt that the loss of autonomy (i.e., ability to choose their own food and pay for products) led to a loss of dignity—this aligns with findings in other studies (e.g., Pine, 2022; Riol and Robinson, 2022). The findings highlight that while there are clear social and economic benefits associated with both foodbanks and community markets, beneficiaries preferred the community market model as it allowed them to choose an acceptable quantity of good quality and nutritious food at subsidized prices. This was not a possibility at foodbanks where food was largely prepared into parcels by volunteers and handed to beneficiaries—in this model, beneficiaries lacked the complete freedom of choice. While both business models enabled beneficiaries to save money and visit budget supermarkets either to top-up their shopping or purchase other household essentials, the community market model added value by offering lifestyle workshops and a sense of community cohesion.

Beneficiaries benefited from charitable AFNs that provided additional services (e.g., sewing and gardening classes) as for many, it was their primary form of interacting with the wider community. Additionally, it helped improve beneficiaries' mental health and wellbeing. Not all foodbanks provided additional services.

Fresh fruits and vegetables were in high demand in foodbanks and community markets. However, with charitable AFN relying on donations (Byrne and Just, 2022) which are fast depleting due to inflation these were not always available. Clearly, there is a nutritional consequence to this where adequate consumption of fruit and vegetables are fundamental to a healthy balanced diet. Nevertheless, a solution could be the provision of frozen alternatives which offer a rich source of nutrients as they are processed at the peak time of ripeness and nutrient profile. The implication would be for both foodbanks and community markets to invest in the storage ability to accommodate frozen goods.

In practice, rising food insecurity in the UK is one of the contributory factors for the increase in number of referrals made to food banks, notwithstanding they are not a sustainable solution in the long-term (Williams et al., 2016; Iafrazi, 2018). Foodbanks were designed as a short-term solution (Renzaho and Mellor, 2010; Handforth et al., 2013; Middleton et al., 2018) and there needs to be a more resilient solution. One such growth area of re-distribution is observed in app and software development (e.g., “Too Good To Go” and “Donation Genie”). This social media innovation gained momentum during COVID-19, but re-deployment of local food surplus has now become common place within communities, notwithstanding evident geographical differences. Beneficiaries in this study did not mention any apps or software; therefore, it is clearly a nascent model of impact. However, its fundamental

TABLE 5 Strengths and challenges associated with community markets.

	Strengths	Challenges
Food availability	Availability of fruits and vegetables: In addition to other food items and household essential being available, fruits and vegetables were available every week.	Limited stock: Items within community markets are in high-demand due to the subsidized rates. This leads to markets running out of stock quickly, leaving some beneficiaries without access to certain foods.
Food access	Affordability: Food and other household items were sold at subsidized rates. Dignity: Beneficiaries did not feel ostracized or ashamed as they are offered a shopping experience that allows beneficiaries to choose their own food items and other household essentials, which helps restore dignity and a sense of control over their choices. Building community Savings: Subsidized rates of items allows beneficiaries to visit budget supermarkets to purchase items that were not available at the community market, thereby enabling diversity in diet.	Referral process: The need for a referral from a third-party agency for those who are unable to pay subsidized rates coupled with the unawareness of the possibility for a referral among certain beneficiaries resulted in their inability to attend the market during times of financial distress Flexibility: Limited opening hours can make it difficult for beneficiaries with busy and/or conflicting priorities.
Food utilization	Education: Educational programmes in the form of cooking classes that teach beneficiaries how to prepare nutritious meals with the available ingredients improves food utilization. Quality, health and freshness: Availability of fruits and vegetables encourages beneficiaries to consume more nutritious food and make healthier food choices.	Storage and cooking equipment: Lack of appropriate storage facilities and cooking equipment restricts utilization of certain food groups.
Food stability	Long-term relief: Consistent access to affordable and nutritious food contributes to stable access to food and other household essentials.	Reliance on subscription models: Reliance on food from charitable food distribution networks leads to a small degree of unpredictability in the quality of food, despite the utilization of a subscription model.

principle mirrors the community market of procurement, which is a preferred structure by consumers to overcome food insecurity.

4.1. Summary of findings

The strengths and challenges associated with foodbanks and community markets in terms of the food security dimensions are summarized in Tables 4, 5.

It is evident that community markets have the potential to act as a complementary solution to foodbanks to address the multidimensional aspects of food insecurity in the UK. They provide access to nutritious food, fostering healthier diets and nutrition. These markets promote dignity and empowerment by allowing individuals to actively participate and contribute their skills, thereby facilitating community engagement, social support, and knowledge sharing, strengthening community bonds and combating social isolation. Additionally, they contribute to local economic development by supporting local producers and entrepreneurs. Hence, collaboration through partnerships between (national and local) governments, local food aid programmes (e.g., foodbanks and community markets), and local businesses must be encouraged to increase food aid funding, food supply and strengthen support networks.

4.2. Policy implications

It is estimated that 87% of adults living in Great Britain reported an increase in their cost-of-living in Autumn 2022, 96% of whom recorded an increase in the cost of their food shopping with a further 44% reducing their spending on essentials including food

(Office for National Statistics, 2023). A 2022 report by Statista (Clark, 2022) approximated that 2.17 million people in the UK relied on community feeding programmes in 2021/22. This added pressure on charitable AFNs to increase assistance.

With referrals to foodbanks at an all-time high, there must be a policy shift aiming at reducing poverty by for example ensuring that food and energy supply is cheap, reliable, and resilient, supporting education on local growing (including revamping the school curriculum) and creating resilient and transparent labor supply chains to work in the agriculture sector (see Nayak et al., 2022). Findings from this study further highlight the need for a review of Universal Credits as current eligibility criteria do not reflect the impact of the cost-of-living crisis and increasing food prices on households and individuals. This has contributed to food insecurity across the UK with many households at risk of having no access to sufficient food. Additionally, wrong referrals due to a poor understanding of the various charitable organizations and the services they provide contributed to the increase in number of referrals. This calls for mapping the referral process to investigate the challenges faced by agencies and to identify opportunities to improve the process. Clearly, the food bank model is not sustainable, and a new long-term solution needs to be found, from this research community markets could be the answer with targeted investment in infrastructure such as freezers.

One key limitation of the policy implications of the study is the lack of evidence on the impact of one modality of assistance on another (i.e., the effect of the rise in Universal Credit, the UK government welfare benefit programme, on the need for food aid from food aid programmes). Although the UK's benefits system, Universal Credits, was designed to reduce household and individual poverty, the waiting period for the first payment as well as eligibility criteria pushed people into hardship (Thompson et al., 2019).

Further studies are required to assess the potential impact of revising the Universal Credit system on the pressures faced by charitable AFNs in the UK.

5. Conclusion

Food insecurity affects physical and mental health, and social and emotional wellbeing. This study analyses the impact of the cost-of-living crisis on beneficiaries of charitable AFNs in the UK while identifying the opportunities and challenges associated with two business models, foodbanks and community markets. The recent pandemic highlighted the importance of resilient and sustainable supply chains where the role of community cohesion was evident. Although several factors influence food security, a focus on identifying the provision point i.e., the place at which communities access food within their locality has been poorly addressed both in research and policy. Public health benefit emerges through ensuring all consumers including society's most vulnerable have access to food, but further the anxieties and mental health challenges that many experience are alleviated. The notion that foodbanks, as charitable emergency response-based entities, are in a position to offer a food supply that can sustainably meet wider community demand and provide for individual needs, is problematic (Iafrati, 2018). This article suggests the development and support for community markets could provide a more sustainable and appropriate solution allowing for individual dignity and societal cohesion bringing benefit to society by providing mutual support and enabling all to work together for a positive future.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by Bournemouth University. The patients/participants

provided their written informed consent to participate in this study.

Author contributions

RN and HH conceptualized the study. RN wrote the first draft of the manuscript. HH contributed to the Discussion and Conclusion section. All authors contributed to manuscript revision, read, and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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