

**GLOBAL FOOD BANK INNOVATIONS: A LITERATURE REVIEW AND THEIR
RELEVANCE FOR SMALL-SCALE FOOD BANKS IN DEVELOPING CONTEXTS**

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Introduction

In recent years, the role of food banks has evolved significantly, driven by innovations that have transformed their operations and improved their impact on food security worldwide (The Global Food Banking Network, 2024). As food insecurity remains a persistent global challenge, food banks have become vital community resources, delivering assistance to vulnerable populations and addressing food waste through innovative programs. For instance, the efficiency of food banks has notably increased over the past years. A notable example is Feeding America, which distributed 5.9 billion meals in 2024, marking a 47.5% increase over the past five years and highlighting the scalability of food bank operations in high-income countries (Feeding America, n.d.).

Despite this progress, small and medium-sized food banks, particularly in developing regions, continue to face considerable challenges in achieving sustainable growth and operational efficiency. While larger food banks in high-income countries have successfully implemented advanced management initiatives and sustainable practices, medium and small food banks often lack the resources and institutional support to replicate these successes. As a result, there is a gap in understanding how innovative practices can be adapted to the specific context of smaller, community-based food banks.

While research on food banks has expanded, studies focusing on how innovative practices can be tailored for small and medium-sized food banks remain limited. Earlier research mainly concentrated on the capacity of food banks to reduce food insecurity (Loopstra et al., 2023), with a focus on the efficient distribution of food and helping vulnerable populations in times of crisis. Over time, the focus shifted towards evaluating the social and economic impact of food banks. For example, Feeding America developed tools to establish metrics for assessing food distribution and program effectiveness (Orgut et al., 2015).

More recently, research has expanded to examine food banks' operational efficiency, particularly in optimizing resources and overcoming logistical challenges, such as inventory management and the distribution of perishable food. Some studies have also examined how food banks in high-income countries adapt to increasing demand during economic crises or changes in social welfare policies (Orgut et al., 2015).

A growing body of research is now focused on measuring the impact and improving service quality. Many food banks partner with academic institutions to assess their return on investment (ROI) through cost-benefit analyses, helping to demonstrate their value to donors and the community. Success stories resulting from these assessments have been essential for attracting more funds and improving services (Social Impacts Solutions, 2024).

However, innovation within food banks has not yet been a major area of focus in research. This study seeks to address this gap by applying the absorptive capacity theory developed by Zou et al. (2018) within the context of food banks. The theory outlines how organizations acquire, internalize, and apply external knowledge to drive innovation. According to the authors, small and medium-sized enterprises (SMEs) are often better positioned to leverage external innovations due to their more agile structures. These organizations tend to be more proactive in seeking relevant knowledge, maintaining closer relationships with local stakeholders, and face fewer bureaucratic obstacles, which enhances the coordination of innovation processes (Zou et al., 2018). These conditions

suggest that practices successfully implemented in larger food banks could be effectively adapted for smaller ones.

This study aims to explore how innovative practices in food banks worldwide can inform sustainable strategies for small and medium-sized food banks in developing regions. Specifically, it examines global food bank models and qualitatively assesses their potential for adaptation at the Banco de Alimentos de la Arquidiócesis de Zipaquirá (BADIZI), a small food bank in Colombia.

Through a comprehensive literature review spanning the past five years (2020-2024), this study identifies three primary areas of innovation in worldwide food banks: (1) services and programs for beneficiaries, (2) management initiatives, and (3) strategies for bank sustainability and growth. By integrating insights from global food bank practices with the specific context of BADIZI, we aim to contribute to the broader understanding of how local food banks can leverage innovation to better serve their communities and achieve long-term sustainability.

First, innovations for services and programs for beneficiaries are initiatives that address the specific needs of individuals or groups (U.S. Department of Health and Human Services, 2024). These services include all the innovations that food banks offer to meet the needs of communities, such as the improvement in food delivery in remote areas where people cannot easily access the food bank's facilities. An example is the Quebec and Montreal Food Banks' food capacity-building programs, which involve managing donations from individuals and organizations to ensure sufficient resources for beneficiaries (Pérez et al., 2024).

Second, management innovations are programs that food banks implement internally to improve operational efficiency and effectiveness. These include quality management systems, administrative procedures, and streamlined workflows. For instance, the Taiwan Food Bank developed an AI-based system to ensure food quality and enhance warehousing processes, optimizing the management of donated goods (Wu et al., 2024).

Finally, innovations in strategies for bank sustainability growth involve integrating sustainable practices into the bank's operations to ensure long-term viability and responsibility toward environmental, social, and economic factors (Stobierski, 2021). These strategies include minimizing food waste and adopting good practices to maintain positive community impacts. For example, the Maryland Food Bank uses descriptive statistics to better align its efforts with community needs, thereby reducing food waste and improving decision-making (Sundermeir et al., 2023).

Banco de Alimentos de la Arquidiócesis de Zipaquirá (BADIZI)

The Banco de Alimentos de la Arquidiócesis de Zipaquirá (BADIZI) represents a unique case within the global context of food banks. Unlike larger food banks in high-income countries that benefit from robust institutional support and advanced management practices, BADIZI operates within a more constrained environment typical of developing regions. As a faith-based organization, it aligns its mission with the teachings of the Catholic Church, focusing on social solidarity and community well-being.

- *Challenges and Strategic Responses*

BADIZI faces several challenges common to small and medium-sized food banks, including limited logistical capacity, insufficient technological infrastructure, and a lack of stable financial resources. The analysis of internal documents highlights critical areas where BADIZI differs from global practices, particularly in terms of innovation adoption and sustainability strategies.

One of their primary challenges is the weakness of the supply chain, which is rated with high incidence (4/5) in the internal analysis. This issue significantly affects BADIZI's ability to maintain consistent food availability, especially given the rural context of many beneficiary communities. Unlike larger food banks that implement advanced logistics solutions, BADIZI often relies on manual processes and basic inventory management systems, leading to inefficiencies. This logistical limitation is compounded by a reduced transportation fleet and a lack of modern technological tools for data management.

- *Sustainability and Growth Strategies*

While global food banks often incorporate long-term financial planning and diversified funding sources, BADIZI relies heavily on episodic donations and church support. This financial fragility makes it susceptible to external shocks, as seen during the COVID-19 pandemic, when the institution had to rapidly adjust its distribution model to accommodate increased demand.

BADIZI's strategic documents also highlight the importance of aligning its operations with Sustainable Development Goals (SDGs), particularly in terms of reducing hunger (SDG 2) and promoting community health and well-being (SDG 3). The bank has made efforts to track its impact on food security in rural areas but lacks standardized metrics to demonstrate long-term outcomes.

In response, BADIZI has sought to strengthen its strategic partnerships with local parishes, private donors, and public institutions. This community-centric approach partially mitigates logistical challenges by fostering a network of support. Additionally, BADIZI leverages the influence and credibility of the Catholic Church to mobilize resources and volunteer support. However, the absence of robust data analytics limits the foundation's ability to optimize its supply chain and predict demand effectively.

Methodology

To explore the innovative practices of food banks worldwide and their potential application to smaller institutions such as BADIZI, we conducted a comprehensive literature review. The primary methodological approach employed was Exploratory Data Analysis (EDA), chosen for its ability to maximize insight into a dataset, detect outliers and anomalies, and test underlying assumptions (Tukey, 1977). This method is particularly suitable for this study because it allows for the identification of emerging trends and patterns within a diverse set of academic articles, facilitating a nuanced understanding of food bank operations across different contexts.

Data Sources

We selected Scopus and Taylor & Francis as our primary data sources of innovative practices of food banks worldwide due to their comprehensive coverage of peer-reviewed literature across various disciplines, including social sciences, public health, and environmental studies. Scopus offers a vast array of interdisciplinary research, making it ideal for exploring the multifaceted aspects of food bank innovations. Taylor & Francis complements this by providing in-depth studies

focused on social and environmental issues, which are crucial for examining sustainability practices in food banks.

Data Collection Procedure

Our search strategy involved using keywords such as “food banks,” “food banks operations,” “food banks programs,” “food security” and “food assistance.” We filtered articles by keywords, titles, and abstracts, focusing on publications from 2020 to 2024 to capture the most recent innovations in food bank practices.

A total of 345 articles were identified in Scopus and 287 in Taylor & Francis. Duplicated articles were discarded, and 562 articles were identified for additional evaluation. We conducted a second-level analysis, reviewing the abstracts of all 562 articles in depth to ensure the inclusion of only those that addressed the innovative variables relevant to our study: (1) services or programs for beneficiaries, (2) management initiatives, and (3) strategies for bank sustainability growth. This resulted in 70 articles being selected for final analysis. The complete procedure of the articles search is shown in Figure 1.

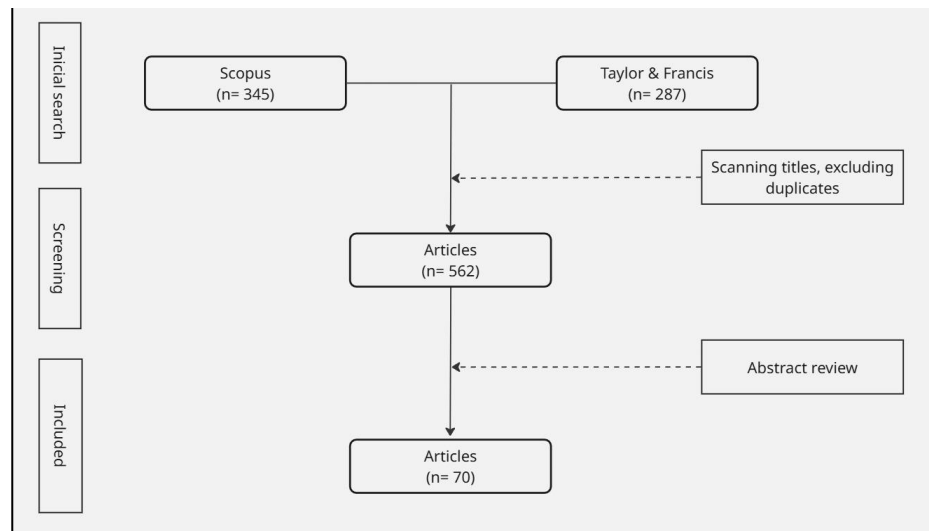


Figure 1. Data collection procedure

Data Characterization and Analysis

We reviewed the selected articles to identify the three main thematic categories. Data were organized into an Excel spreadsheet, capturing variables such as the type of service, management initiative, and sustainability strategy discussed, along with the geographical and demographic characteristics of the food banks analyzed, when such information was available. This structure facilitated the identification of patterns and trends that could inform the adaptation of successful global practices to BADIZI's specific context.

To complement the academic data, we conducted a cross-referencing process using Google. This step aimed to validate the data and provide a broader perspective on the innovations identified.

Results and Discussion

This section presents the findings from analyzing 70 reviewed articles selected from Scopus and Taylor & Francis, focused on global food bank practices. The results are organized according to the three thematic categories defined in the research framework: (1) services and programs for beneficiaries, (2) management innovations, and (3) strategies for sustainable growth.

1. General Findings

The geographical overview shows that North America dominated the academic output with 35 articles, followed by Europe with 18 articles and Asia with 9. In contrast, only 5 studies focused on South America, 2 on Oceania (specifically Australia), and none on Africa. It must be considered that these results vary depending on the food bank being analysed. This uneven distribution reflects a strong Global North bias in the current academic discourse on food banks, with most models, innovations, and evaluations emerging from highly industrialized and relatively food-secure contexts.

In terms of methodological and thematic orientation, the analysis reveals that approximately 70% of the articles are empirical, with a balanced distribution between quantitative and qualitative approaches. Quantitative studies often employ statistical models, optimization algorithms, and spatial analysis to evaluate food distribution efficiency and resource allocation, as seen in cases such as the Food Bank of Madrid (Reusken et al., 2024) and The Greater Boston Food Bank (Sengul Orgut & Lodree, 2023).

Qualitative studies explore user experiences and community perspectives through interviews and case studies as for example, research on Dutch food parcel recipients (Neter et al., 2020) and community gardening projects linked to Canadian urban food banks (Levidow et al., 2023).

The 15% of articles are descriptive studies that present a contextual overview of operations or beneficiary characteristics, like, for example, the analysis of food pantries in North Carolina (Meduri et al., 2024). Theoretical articles represent only 5%, offering conceptual frameworks on food justice and sovereignty, often with a critical view of the charity model as seen in Sweden and the U.S. (Herz, 2022; Lohnes, 2023). Lastly, 10% of the articles are innovation-focused research introduces tools such as artificial intelligence or circular economy strategies, with cases like the Food Bank Singapore's vending system (Wu & Tai, 2024) and circular food initiatives in the UK and Norway (Lever & Sonnino, 2022).

2. Analysis of the Thematic Categories in the Literature

In Table 1, the analysis focused on the general presence of each thematic category of innovations across the selected articles. (1) Services and programs for the beneficiaries were present in all 70 articles (100%), positioning them as a dominant area of focus within food bank literature. This highlights that the immediate objective of meeting beneficiaries' basic needs remains the central concern in academic and practical discussions around food banks. (2) Management innovations were identified in 59 articles (84.3%), revealing a substantial but secondary interest in the internal processes that support food bank efficiency and operational effectiveness. Finally, (3) strategies

for sustainable growth were present in only 40 articles (57.1%), indicating that long-term planning and sustainable development practices are still relatively underdeveloped themes within the existing body of research. The difference among the categories suggests that although food banks are increasingly concerned with improving their internal management, less attention is being given to sustainable growth.

Category	Number of Articles (n=70)	Percentage
Services and programs for beneficiaries	70	100%
Management innovations	59	84.30%
Strategies for sustainable growth	40	57.10%

Table 1. General Presence of Innovations according to Thematic Categories in Literature

We examined the variety and frequency of innovations across the three categories (see Table 2); several patterns emerge that shed light on the current global focus of food bank operations.

Services and Programs for Beneficiaries

Within the category of innovations in services and programs for the beneficiaries, the most universally mentioned initiative was food provisioning and donations, cited in all 70 articles, confirming that direct food assistance remains the fundamental function of food banks. Other frequent services included local distribution (20 mentions), food pantry services (16), etc., which highlight the operational emphasis on reaching communities with logistical challenges and ensuring consistent food availability. It must be considered that these are not innovations despite the frequency that are mentioned in the articles. Notably, the innovations where the services and programs with lower frequencies, such as wrap-around social services (11 mentions) and capacity-building initiatives such as cooking workshops and nutritional education (3 mentions), the findings show a transition from food provision alone toward more holistic, person-centered models, though further scaling and evaluation are still needed.

Services and programs for the beneficiaries	Number of Articles mentioning the innovation
Food Provisioning /Food Donations	70
Local distribution	20
Food Pantry Services	16
Collect food donations	15

Service Provider for people who cannot access food	15
Wrap-around services*	11
Social food services by the government**	4
Cooking workshops and nutritional education	3
Guarantee nutrition security	5
Food capacity building***	3
Others	20
Total of services and programs for the beneficiaries	182

Table 2: Detailed results of services and programs for the beneficiaries

Management innovations

In the category of management initiatives, the most cited was the improvement of food bank operations through collaboration with public, private, and social institutions (10 mentions), emphasizing the growing recognition of the need for cross-sector partnerships in enhancing internal efficiency and resource mobilization. Other prominent strategies included vehicle routing optimization (9 mentions) and improved supply coordination (8 mentions), reflecting a strong focus on optimizing logistics to maximize impact and reduce waste. However, more advanced or technology-driven approaches such as predictive modeling, AI for food quality assurance, and warehouse optimization using Six Sigma were rare, suggesting that while some food banks are experimenting with innovation, the broader sector remains largely traditional in its operational methods.

Management Innovations	Number of Articles mentioning the innovation
Improvement of the food banks' operation with the support of social, public, and private institutions	10
Vehicle routing	9
Improvement of the supply coordination	8
Establishment of intermediaries or suppliers for the required logistics	5
	5

Creation of a framework that provides food banks the flexibility to balance the trade-off between effectiveness and equity based on their preferences	5
Implementation of an extensive network of hypermarkets, restaurants, social enterprises, and individuals that enables excess food to be distributed	4
An information system that links daily operations and helps facilitate the sharing of resources with other food banks	2
Planning of the distribution, considering time restrictions	3
Creation of a predictive model that can forecast the food preferences of the beneficiaries	2
Establishment of minimum quality standards required for food redistribution	12
Others	
Total of Management Initiatives	65

Table 3: Detailed results of Management Initiatives

Innovations in Strategies for Sustainable Growth

Within strategies for sustainable growth (3), fewer initiatives were reported overall, underscoring the literature’s limited attention to long-term viability strategies. The most cited strategy was supporting trusting relationships and ensuring diverse and representative groups (11 mentions), highlighting the importance of social cohesion and community engagement in sustaining food bank operations. Other notable strategies included guaranteeing the high nutritional value of donated food (6 mentions) and implementing local food policy systems to promote regional food autonomy (5 mentions). Nevertheless, several sustainability initiatives such as creating systems to measure positive community impact, promoting equal food distribution, or developing advocacy organizations were mentioned only once or twice, indicating that structured frameworks for measuring and enhancing sustainability are not yet a common focus in food bank strategies. These findings reveal a strong concentration on immediate service delivery and operational efficiency, with comparatively less emphasis on systemic innovation and sustainable growth, pointing to a critical gap in the current research landscape.

Innovation in Strategies for sustainable growth	Number of Articles mentioning the innovation
Support-trusting relationships, while ensuring diverse and representative groups	11

Make strategies that focus on guaranteeing the high nutritional value of the food donated to the beneficiaries	6
Implementation of a system addressing local food policies that improve regional food autonomy	5
Invest in creating a vehicle routing system	4
Creation of infrastructure to facilitate emergency food	2
Promote equal distribution of food	2
Adopt coping strategies, such as utilizing credit to purchase food, to modernize according to beneficiaries' preferences	1
Marketization of a wide variety of charitable food aid	1
Innovative social programs, including an advocacy organization	1
Create an effective system that allows food banks to show the positive impacts on the community	1
Others	1
Total of strategies for sustainable growth	35

Table 4: Detailed results of Strategies for Sustainable Growth

3. Key Trends and Implications

From this exploratory research, three major trends were identified : a) Food Banks from developing countries have much less support from government and entities, b) Most advances from food pantries are focused on food insecurity rather than addressing root causes of systemic inequalities, c) Food-waste related practices are unintended consequences from a high number of food banks' strategies.

a) Food Banks from developing countries have much less support from the government and entities

In developing countries, food banks face significant limitations in the support they receive from governments. While in developed nations like Canada and the United States, food banks benefit from substantial encouragement in the form of subsidies, infrastructure, and food policies, such support is minimum in third-world countries. For example, in Brazil, even though initiatives like the "Food Security Program" exist to combat hunger (Görmüs, 2018), the food banks responsible for these efforts often lack the financial and logistical resources to expand their impact. This gap in government support highlights the contrast in the ability of governments to implement effective food assistance policies, which results in less efficient food bank operations in underdeveloped regions.

In addition to funding shortages, food banks in developing countries also face logistical and infrastructural barriers. In regions such as Peru (Campos-Caycho et al., 2020), food banks heavily rely on sporadic donations and distribution systems that are not always reliable. In contrast, countries like the United Kingdom (Lohnes, 2023) and the United States (Ataseven et al., 2020; Chen et al., 2021) have optimized distribution systems that allow for greater efficiency in delivering food to those in need as it is shown in Figure 1. The literature clearly illustrates how the limited infrastructure in developing countries impacts the ability of food banks to operate effectively and reach vulnerable communities (Darmowinoto et al., 2020; Vieira et al., 2022). These limitations not only reduce the amount of food available but also hinder the implementation of innovative food assistance programs (Reusken et al., 2023; Aloysius & Ananda, 2023).

b) Most advances from food pantries are focused on food insecurity rather than addressing root causes of systemic inequalities

The literature shows that while food banks have made significant progress in reducing food insecurity, much of their focus remains on immediate relief rather than addressing the underlying causes of systemic inequalities. A clear example of this is seen in the operations of food banks in Canada, where much of the strategy focuses on food redistribution and improving delivery efficiency like the management initiative call “Local Food Strategy for Yucon” which is focus on the delivery of food to places with a difficult access (Blom, 2022), but does not tackle the socioeconomic barriers that perpetuate food insecurity.

Moreover, food banks in both developed and developing countries often prioritize immediate services without considering the long-term impact on beneficiaries' self-sufficiency (Lohnes, 2023). As seen in Table 1, where the services offered to the beneficiaries were mentioned in the 70 articles, many foods banks focus on short-term food distribution rather than structural interventions that promote autonomy and reduce dependency (Pautz & Dempsey, 2022).

Despite advances in sustainability and the implementation of innovative tactics such as reducing food waste, the underlying systemic inequalities, such as unequal access to education and the lack of economic opportunities, largely remain unaddressed. In countries like Turkey, some food banks have integrated job training programs and educational support, but these efforts are still limited and not part of a broader social development strategy (Görmüs, 2018). This disconnect between immediate solutions and structural needs suggests that, although food banks play a crucial role in alleviating hunger, they are not sufficient to solve the root causes of inequality.

c) Food-waste related practices are unintended consequences from a high number of food banks' strategies

Effective demand forecasting management techniques are important for food wastage to be reduced (Gössling et al., 2011). However, the research demonstrated that multiple Food Banks around the world did not consider waste as a principal factor when planning and implementing different strategies. Food wastage has permeated multiple territories in the 21st century, as the U.S. Environmental Protection Agency has estimated that discarded food is the single most common material in landfills and that greenhouse gas emissions

from food waste are equal to the combined emissions of 42 coal-fired power plants (Jaglo, 2021).

Concrete examples rely in food pantries located in the Southern and Eastern zone of North Carolina in the United States, where many institutions have policies in place to address food waste, including the ones related to handling food past the date on its label. Even though pantries reported discarding foods from every category, fresh produce was reported to be the most discarded food category by most of them (Meduri et al., 2024). In institutions from this territory, it is said that many employees did not know about labeling identification and its elements, making it even more difficult for them to generate actions against food waste. In the same way, around these contexts little is known about the prevalence of food waste or the reasons for food waste among food pantries in the U.S., previous research has found that, among U.S. citizens more generally, confusion related to date labels is a major contributor to food waste (Patra et al., 2022).

The previous discussion outlined global innovations and trends in food banks worldwide. The following section qualitatively assesses the potential for adapting these innovations at the Banco de Alimentos de la Arquidiócesis de Zipaquirá (BADIZI). As a community-centered food bank operating in a developing region, BADIZI exemplifies how global practices can be tailored to meet local needs while addressing unique challenges.

Insights: BADIZI vs. Global Practices

When compared to successful global food banks, BADIZI's operational model reflects a more localized and faith-based approach rather than one driven by technology or advanced logistics. This is not inherently a disadvantage, as BADIZI's embeddedness in local communities allows for personalized and culturally sensitive interventions. However, the absence of technological modernization and data analytics poses a risk to its sustainability and efficiency.

Furthermore, while global food banks often adopt data-driven decision-making, BADIZI's strategic planning is predominantly qualitative, relying on anecdotal evidence and community feedback rather than quantitative data. Strengthening data collection and analysis practices would enhance BADIZI's capacity to plan and execute its initiatives more strategically.

Building on these gaps, the most applicable innovations lie nutritional education programs and community gardens would align with BADIZI's emphasis on food security and empowerment, fostering long-term dietary improvements (Lanier & Schumacher, 2021; Levidow et al., 2023; Herz, 2022). Moreover, school food programs and referral systems to health and social services are highly applicable given BADIZI's collaboration with educational and public health institutions (Darmowinoto et al., 2020). These approaches would support a more holistic care model, especially in vulnerable neighborhoods.

From a management and sustainability perspective, BADIZI would benefit from incorporating inventory management systems and predictive modelling, which do not require high-tech infrastructure but can improve planning, reduce spoilage, and increase transparency with donors (Wu & Tai, 2024; Sengul Orgut & Lodree, 2023). Additionally, introducing volunteer training modules and impact measurement frameworks would allow the organization to assess programs outcomes and report results effectively to funders and stakeholders (Pérez et al., 2024; Impact

Measurement for Food Banks, 2024; Turkkan, 2023). The tables included common practices in food banks that had innovative approaches.

Future Directions for BADIZI

To enhance its sustainability and impact, BADIZI could benefit from integrating basic digital tools for inventory tracking and beneficiary management, which do not require extensive financial investment. Additionally, developing a community-based monitoring system to evaluate program effectiveness could help the institution align its efforts with broader food security goals. Collaborating with academic institutions, including the Universidad de La Sabana, could provide access to research and technical expertise, supporting evidence-based decision-making.

In conclusion, BADIZI's strength lies in its community-driven model and strong social values but addressing logistical weaknesses and enhancing data management practices are crucial for achieving long-term sustainability. Balancing its faith-based mission with modern management practices could enable BADIZI to evolve while retaining its core identity and community focus.

Conclusions

This study demonstrates that while innovation has improved the efficiency and sustainability of many food banks worldwide, significant disparities remain between high-income countries and developing regions. Food banks in developed economies benefit from robust support systems and advanced management practices, while smaller institutions, like those in South America, face logistical challenges and financial instability.

One key issue identified is the focus on immediate relief rather than addressing the root causes of food insecurity. Additionally, even well-established food banks struggle with food waste due to inadequate knowledge about labeling and expiration. The research also highlights a Global North bias, limiting the relevance of findings for food banks in low-resource settings.

The case of BADIZI illustrates the challenges of a community-driven model typical of smaller, rural food banks. BADIZI's reliance on local partnerships and volunteer work fosters community engagement but limits scalability and operational efficiency. Addressing supply chain weaknesses, integrating basic data management, and strengthening long-term partnerships are crucial for enhancing BADIZI's sustainability.

To better support food banks like BADIZI, future research should focus on adapting global best practices to local contexts. Integrating low-cost technological solutions and fostering community-led management could bridge the gap between innovation and practical application.

By balancing global insights with local adaptation, food banks can build more resilient and sustainable models while remaining responsive to their communities' needs.

Limitation and Future Research

This article is based solely on innovations that have been documented and published in peer-reviewed academic literature, specifically within databases such as Scopus and Taylor & Francis.

As such, any practices or innovations that are being implemented in the field but have not yet been formally published were not included in this analysis.

This study sets out to identify what innovations from worldwide literature of food banks might be relevant for smaller institutions such as BADIZI, considering absorptive-capacity theory as a conceptual lens to justify the feasibility of adapting external innovations. However, future research should analyze how these practices could ultimately be integrated or institutionalized within smaller organizations like BADIZI.

Notes

**Definition:* Includes services such as welfare advice, mental health support, and socializing support (Pautz & Dempsey, 2022)

** *Definition:* It focuses on helping food programs outside the food bank (Lanier, 2021)

****Definition:* Not just deliver food but include programs such as community kitchens, cooking classes, etc. (Pérez et al, 2024)

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