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AAHAR YOJANA: A PERSPECTIVE OF SUBSIDISED MEAL PROGRAMME AMID THE PANDEMIC

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ABSTRACT

The Covid-19 pandemic left millions to suffer its impact in the forms of unemployment, displacement, acute food shortage, and more. It kept migrants and urban poor to remain more vulnerable to food. This study examined the impact of coronavirus on the food security of the urban poor through the lens of Aahar Yojana, one of the government-led subsidised meal programs in Odisha, India. It combined the interview data obtained from the Aahar centres with structured observations and evaluated interlinked elements of the institutional services and pandemic: Hunger satisfaction level, Food hygiene, Sanitation, Quality, and Quantity. Results emphasised integrating such initiatives with robust governmental interventions to shift focus from cash transfers and subsidies. The originality of this paper is that it revealed that the scope of formerly established meal programs could mitigate food insecurity as reflected from the practical benefits during the pandemic.

KEY WORDS

Aahar, meal, subsidised, India, pandemic

CLASSIFICATION

JEL: I38, L66, Q18

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INTRODUCTION

Food insecurity is the situation when 'people lack access to adequate hygienic or nutritious food' [1]. The cause of insecurity varies with food scarcity, pricing, and unequal distribution among family members [2]. To address this significant concern, United Nations adopted eradicating poverty and hunger as one of the Millennium Development Goals (MDGs) goals in 2000. Similarly, the Sustainable Development Goals (SDGs, 2030) also mentioned it with a different spirit. Food insecurity remained a significant challenge with the onset of COVID-19 (Novel Coronavirus Disease). The World Health Organization (WHO) announced it as a pandemic in March 2020. The surge of new strains of positive cases in 2021 became a constant cause of distress [3]. The regimes of every nation initiated similar actions like imposing restrictions on mobility, social distancing, shutdown, and lockdown to curtail its spread. In India, the state governments also initiated independent strategies such as containment zones, control of gatherings in public places, and executing door-to-door assessments to monitor the spread of disease.

Within such regulations, the inflow of migrants, environmental circumstances (drought and storms), and a significant rise in COVID-19 cases left millions of individuals unprepared to suffer economic, social, and food losses and interruptions to essential services. It meant that impoverished people would go hungry, face socioeconomic disparities, and cope with poorer quantity and quality of food intake, which would have a long-term impact. Meanwhile, securing food and getting it to those in need became critical in urban areas. The state governments in India took proactive measures by distributing food and compensating with monetary support to meet nutritional needs. On the other, the potential of existing food distribution programs was untapped during the pandemic. For example, Aahar Kendra, a subsidised meal program launched in 2015, is one such initiative in Odisha. It must adopt context-specific strategies to become an apparatus to mitigate food insecurity amid the pandemic. However, this study revealed a changeable impact of the program that provides insights for future policy interventions.

FOOD SCHEMES AND PROGRAMMES IN INDIA PRIOR TO THE PANDEMIC

The food policy in India geared up after Independence to mitigate hunger and poverty. The long-term strategy embraced plans encompassing food production, improving marketing infrastructure, and institutional mechanisms. The short-term strategy emphasised subsidised food distribution. The country evolved a Public Distribution System (PDS) with a motive to distribute food grains to the Below Poverty Line households. In 1992, the PDS again re-established as the Revamped Public Distribution System with the necessary adjustments. In 1997, it developed into Targeted Public Distribution System (TPDS), under which the government supplied rice, sugar, oil, and other products through fair price shops. Besides, the government initiated several programs and schemes such as *Rashtriya Krishi Vikas Yojana* (RKVY), Emergency Feeding Programs (EFP), *Antodyay Anna Yojana* (AAY), Integrated Schemes of Oilseeds, Pulses, Oil palm, and Maize (ISOPOM), scheme of village grain bank, Integrated Child Development Services (ICDS), National Horticulture Mission (NHM), Mid-day Meal (MDM), and Annapurna scheme to address the challenges of food. Lastly, the National Food Security Act came into force in 2013 with a model shift from welfare to the rights-based approach.

Although India tackled hunger and food insecurity malady [4], the cost, storage, and transportation remained a barrier to viability. Food as an 'essential service' got adversely affected due to Covid-19. Earlier, identifying the deserved beneficiaries of food security was difficult [5], but during the pandemic, it became challenging to relieve people from food insecurity. However, Indian states had a backup of independent subsidised meal programs under different names during the pre-pandemic phase to cater to the urban poor. To name a

few, *Amma* Canteen in Tamil Nadu, *Aahar Kendra* in Odisha, *Atal Jan Aahar Kendra*, *Aam Aadmi* Canteen and *Atal Rasoi Deen Dayal Aahar Kendra* in Delhi, *Annapurna Rasoi Yojana* in Rajasthan, *Mukhyamantri Dal-Bhat Yojana* in Jharkhand, *Indira* Canteen in Karnataka, and *Anna NTR* canteens in Andhra Pradesh. These initiatives are concerned with providing quality food to needy people, migrants, and the urban poor. Some canteens adopted specific hygienic maintenance protocols, for example, prohibiting footwear inside the dining hall. Amma canteens had offered hot water mixed with turmeric, pepper, and ginger during the pandemic. These canteens functioned on a self-serving basis and it is more hygienic than the street food and cafeterias, where cleanliness, access to sanitation, clean water, and waste management received sufficient attention [6-9]. The advantages of such initiatives defend from the fear of food pressure [10] and promote security. Hence, the realisation of this aspect became visible when the pandemic struck the entire world.

BACKGROUND OF *AAHAR KENDRA*

The Odisha Government launched Aahar Kendra (food distribution outlets) for the urban poor in 2015 in Cuttack, Rourkela, Bhubaneswar, Sambalpur, and Berhampur. The meal is available at the subsidised rate of five rupees while the actual cost is twenty rupees. The remaining expenditure is met from local donations and funds available under Corporate Social Responsibility. The meal contains 'Bhāta', i.e., boiled rice, and 'Dālmā', i.e., mixed pulses vegetable curry. In addition, they served pickles and dry snacks on selective days. Its distinct features are quality food, quantity, price, time, hygiene, cleanliness, drinking water facility, and inclusive infrastructure. It is open to all people. However, the primary beneficiaries are wage labourers, construction workers, street children, slum inhabitants, beggars, destitute, rag pickers, scavengers, drivers, patients, attendants, and students. The strategy for setting up these outlets is target-based and area-based. The government opened them near the marketplace, railway station, court, bus depot, and hospitals to ensure access to the needy. The Housing and Urban Development Department is the nodal organisation for implementation. It has multiple partners. They are Odisha Mining Corporation in Bhubaneswar and Cuttack, Odisha Power Generation Corporation (OPGC) in Rourkela, and Industrial Infrastructure Development Corporation in Sambalpur, and Tata Steel Limited in Berhampur [11, 12].

METHODS AND DATA COLLECTION

SELECTION OF RESEARCH AREA

There is an extensive influence of the ongoing pandemic on health, food (supply and prices), education, livelihood, and overall daily life [13, 14]. It can generate a twofold food insecure population due to income loss and anomalies in food schemes and policies [15]. Almost 746 million people experience food insecurity at a severe level. The Asian regions contributed 421,6 million, and 341,8 million belonged to Southern Asia. Following Africa, the South Asian countries have the highest prevalence of severe food insecurity, i.e., 17.8% and nearly 57% of its population fail to afford a healthy diet; thus, producing additional pressure during the pandemic. In developing countries, it is visible amongst low-income households because of two choices, first, striving to earn some money to eat, and second, accepting the risks of stepping out and becoming infected [16, 17]. Among 113 countries, India obtained the 71st rank (56,2 scores) in the Global Food Security Index. Moreover, India's population still suffers from the burden of hunger due to a lack of affordability. India ranked 101st out of the 116 countries, scoring 27,5 that indicated a severe hunger level [18]. The country with TPDS as the most prominent food protection program stood fragile in safeguarding these deprived populations [19]. Hence, access to food for the poor and downtrodden remained critical during the pandemic in various Indian states.

The 'low-income states,' namely Bihar, Odisha, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Jharkhand, and Rajasthan, often suffer from food shortages. Despite appreciable progress in mitigating poverty in Odisha, it contained impoverished districts [20], and some of its districts remained 'extremely food insecure.' Sundargarh district of Odisha has 50.75% of its population from indigenous groups, and it is one of those districts with inadequate access to food [21]. For this reason, the authors conducted a preliminary study in Rourkela, Sundargarh district. The district has nine aahar outlets. Six of them are in Rourkela. They are near Rourkela Government hospital, Ispat general hospital, Shelter for Urban Homeless (SUH), Odisha State Road Transportation's bus depot in sector 2, Bisra Bus depot, and Vedvyas temple road, Figure 1. The study is significant in the present context because of the following:

1. There exist lesser-known facts regarding the implications of Aahar Kendra.
2. Reports, newspapers, and government websites have only awareness-based studies reflecting no research scope.
3. No study on such initiatives relates to their role during the pandemic.

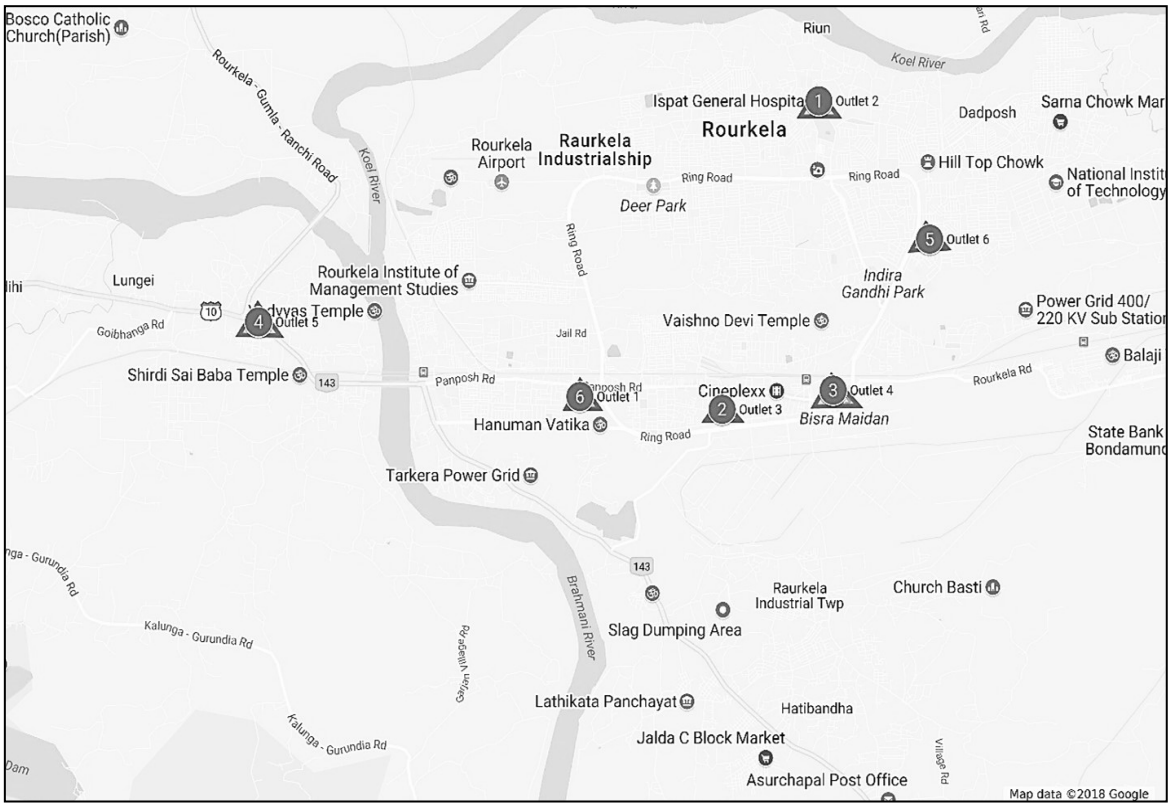

Figure 1. Aahar kendra map showing the six functional outlets in the study area. Source: Author's Representation through GoogleMyMaps; Outlets indicated by numbers

RESEARCH OBJECTIVES

The study has two objectives; they are:

1. To understand the functions of aahar kendra and outline its pros and cons;
2. To examine the impact of the Covid-19 pandemic on food security through Aahar Kendra

This article emphasises the prospects of a subsidised meal program during the outbreak of unwarranted situations such as pandemics.

DATA COLLECTION AND ANALYSIS PROCEDURE

The authors' collected primary data using direct observations and interviews. An aggregate of 110 beneficiaries and 11 associated members of the outlets in Rourkela participated in the

personal interviews. Further, interviews with key stakeholders of the Akshaya Patra Foundation, Rourkela Municipal Corporation (RMC), and District Aahar Society enriched the outcomes with the institutional perspective. The paper highlighted five variables: gender, age, residence, occupation, and frequency of visits. Additionally, the Likert scale analysed five elements, i.e., hunger satisfaction level, hygiene, sanitation, quality, and quantity. The respondents iterated about the sub-elements of five selected elements on a 5-point Likert scale. Lastly, it triangulated the primary data with the secondary data to attain the scope for policy interventions, Table 1.

Table 1. Summary of the present study and data collection procedures.

Sl. no.	Particulars	Key Areas
1.	Primary Objective	Benefits of Aahar Kendra amid Covid-19 pandemic
2.	Area of Analysis	Six outlets of Aahar Kendra in Rourkela (Sundargarh district in Odisha, India)
3.	Total Respondents	110
4.	Inclusion Criteria based on Objectives	Beneficiaries present at the Aahar Kendra site
5.	Data collection method and Duration of Observation and Personal Interview	**A.** Phase 1 (interview method, Two months-questions about situations during pre-pandemic) **B*** Phase 2 (questions about situations during the pandemic and structured observations for Three weeks). **C.** Phase 3 (Post-pandemic Discussion)
6.	Statistical Methods and Software used	Likert Scale, SPSS 20
7.	Description of Likert Analysis	E.g. Satisfied with a given quantity is the final variable. It had three elements measured under the Likert scale (i.e. Quantity of Rice, Quantity of Dālmā, Quantity of pickle/dry mixture) and the Scale value (4 – Excellent; 3 – Good; 2 – Neutral; 1 – Fair and 0 – Bad).
8.	Results	Quantitative and Qualitative analysis

*Structured observations assisted in the ongoing pandemic phase as the interview affected by lockdown, shutdown, night curfew, and daytime restrictions.

RESULTS AND ANALYSIS

FUNCTIONS OF AAHAR KENDRA

The Odisha State Aahar Society (OSAS) is the executive agency and governing body at the state level under which the outlets' function. It monitored the activities of the District Aahar Society (DAS). The DAS regulated the outlets in Rourkela by mobilising funds from the contributing agencies to meet the subsidy expenditure. The RMC handled the infrastructural management system (record maintenance, supervising employees, redressing grievances, and maintaining infrastructure, fans, coolers, dishwashers, surveillance cameras, and television). The primary sponsor is OPGC, while Touchstone Foundation implemented the program. The Akshaya Patra Foundation (an associate unit of Touchstone Foundation) prepared and distributed food to outlets in the city. Its prime function is maintaining an equilibrium between food, hygiene, and housekeeping. The foundation has employed a supervisor at each centre

(five outlets have male supervisors, and one has a female supervisor). The serving staff worked rotationally in each centre. Primarily, female members worked as housekeeping staff, and they were limited to two in each centre. The implementing agencies continuously trained the staff in association and support from the Housing and Urban Development Department, Figure 2.

PROS AND CONS OF AAHAR KENDRA (PRE-PANDEMIC)

1. **Pros –** These establishments prepare and serve meals to beneficiaries on time. They serve approximately 6000 beneficiaries every day in Rourkela. The amount of food prepared varies with the growing or falling demand. The quantity of each food item (rice and curry) has a fixed measuring unit vessel per serving. One container of hot cooked meals caters to up to 47 beneficiaries, with an approximate serving of 200 gm. of rice and 60 gm. of curry per beneficiary. The quality analyst examines the pesticide and insecticide deposits in vegetables and submits the quality assurance report relying on which the organisation purchases vegetables to prevent food poisoning. Akshaya Patra Foundation provided training-cum exposure visits to its centralised kitchen for staff on cooking, hygiene, and rules and regulations. To ensure hygiene, aahar kendra and Akshaya Patra Foundation employees wear hair caps and face masks when cooking and serving. The centres ensure cleanliness for every visitor with continuous sweeping and mopping. Beneficiaries wash their dishes after meals, making them accountable for their cleanliness. These outlets also have the facility to sterilise the utensils. The foundation converts the food waste into biogas.
2. **Cons –** The viability of this program is heavily reliant on financial assistance, making it difficult for the OSAS and DAS to raise funds when inconsistencies in contribution develop. Housekeeping personnel hired on a contract basis often complained about irregularity in payment with lesser salaries. In a few cases, staffs do not attend duties on time. Hence, they compromise on hygiene during peak hours. Inadequate supervision is a barrier to maintaining the goodwill of this initiative. Food wastage, dependency on cash and kind transfers, and failure to efficiently use human resources limited its advantages. Sadly, grievances redressal and appraisal mechanisms are inactive. Employees and beneficiaries are hesitant to register grievances because they believe it would result in the program's termination. It produces a negligent attitude that will be counterproductive. The outlets do not have additional safety measures (e.g., security guard, fire extinguisher) for contingencies. Lastly, the outcomes revealed that the people's ability to afford food and maintain these centres had less pressure on the state during the pre-pandemic phase. Nevertheless, it is necessary to examine these factors to draw any firm inferences on the post-pandemic phase, Figure 2.

Despite differences among families in managing food uncertainties, the correlation analysis showed a general sequencing of the events. Results indicated that age did not have any effect on the selected variables. Gender is essential in determining cleanliness and safety; this is because female peers are more concerned with cleanliness compared to men. In Indian society, women in the households remain responsible for cleanliness. Hence, the negative correlation is due to the dissatisfaction of female visitors with the hygiene of food, especially the cleanliness of utensils. It implied a distinct perception of gender regarding their food hygiene. This result is also consistent with the findings of authors [22], who discussed the direct relationship between women and their limited dining out habits. Indeed, variations in food intake location had a connection with gender in terms of assessing the risk of having COVID-19 [23].

At the pre-pandemic time, the occupational situation of the categories of beneficiaries had a varied effect on their access to food. However, the outlet served the urban poor without constricting their access to food and compromising hygiene during the pandemic. The type of residence positively correlated with the frequency of visits as more residents from slums had their meals at these outlets more frequently. Apart from it, the frequency of visits positively

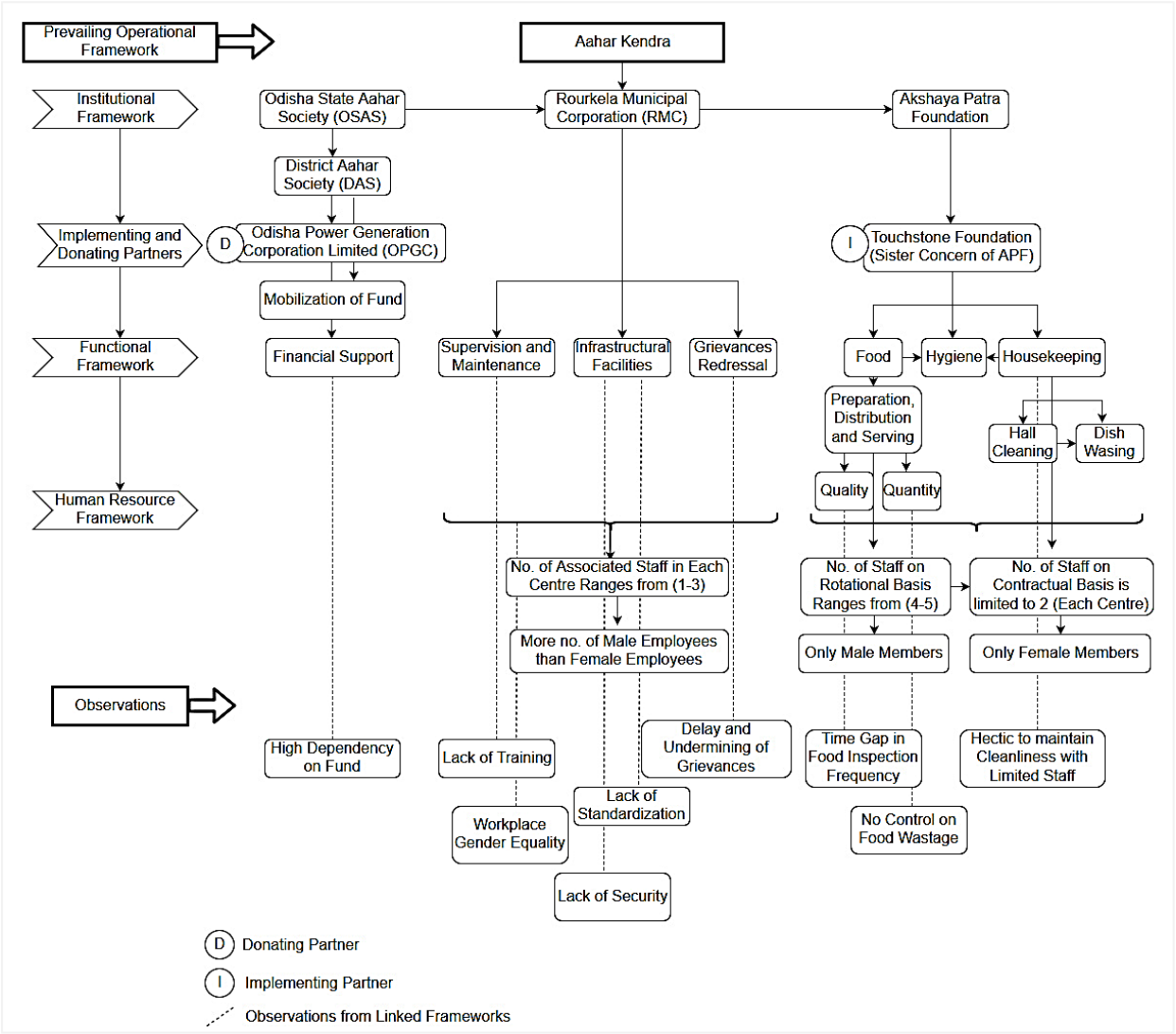

Figure 2. Outline of observations and integrated functions of aahar kendra reflecting the pros and cons.

correlated with five elements: hunger satisfaction, food hygiene, the quantity of food, quality of food, and sanitation. This evidence is in line with earlier finding [9], where the author mentioned in the case study that low-income groups had the opportunity to afford hygienically cooked and nutritious meals in similar canteens without depending on leftover food. Hence, the cumulative satisfaction over these elements aided the lower-income groups to have their meal frequently at these outlets and save time and money from travelling back home to work only for food. Similarly, the respondents believed that the hunger satisfaction level positively correlated to food hygiene and quality, Table 2.

IMPACT OF COVID-19 ON AAHAR YOJANA AND ITS CHANGING ROLE (DURING & POST-PANDEMIC)

This section is about positioning the poor, migrants, and returnees to report their food accessibility alternatives. We know that pandemic made us work from home, and it became a 'new normal' for millennial. On the other, most of the population had no option for this. The declaration of the shutdown in the country made the working-class population jobless. The unforeseen exigency left a part of the population with no means to afford food for their family. This chaos led the regimes to ensure primary care through food, transportation, and shelter in relief camps. The mass exodus influenced the retention of the workforce, overall production, and transportation facilities resulting in an immense loss in food demand and supply chains.

Table 2. Correlation analysis on the responses from phase 1: pre-pandemic scenario.

Variable	Age	Gender	Catego-ries	Residen-ce	Frequen-cy of Visit	Hunger Satisfac-tion	Food Hygiene	Quantity of Given Food	Quality of Given Food	Overall Sanita-tion
Age	-									
Gender	–0,167	-								
Catego-ries	–0,025	–0,121	-							
Residen-ce	–0,083	–0,185	–0,092	-						
Frequen-cy of Visit	–0,018	0,002	–0,011	**0,263****	-					
Hunger Satisfac-tion	0,071	–0,051	0,035	–0,053	**0,397*****	-				
Food Hygiene	0,066	**–0,342*****	**0,231***	0,023	**0,340*****	**0,414*****	-			
Quantity of Given Food	0,033	0,181	–0,048	–0,074	**0,335*****	0,185	0,114	-		
Quality of Given Food	0,122	–0,040	$2{,}963 \cdot 10^{-4}$	–0,093	**0,258***	**0,539****	**0,319****	**0,414*****	-	
Overall Sanita-tion	0,111	0,019	–0,137	–0,033	**0,283****	0,243	**0,273***	**0,230***	**0,276*****	-

*significant at the level $p < 0{,}05$
**significant at the level $p < 0{,}01$
***significant at the level $p < 0{,}001$

Therefore, jobs and livelihoods remained at a higher risk, influencing consumer and supplier behaviour towards food priorities. The skyrocketing prices of essential items and reduced income interrupted the food security of deprived households. The authors provided a comprehensive comparison of various eateries with the initiative to emphasise this point, as expressed in the following paragraphs.

The daily expenses of feeding oneself at the usual time outside the home revolve around five elements: preference for the type of food outlet, price of food, quality, quantity, and hygiene. Amid COVID-19, there was a permanent closure of eateries. Nevertheless, opening eateries for online orders facilitated contactless ordering, hygienic food, or environment, and safe handling practices became the safety net for the customers. The home delivery and pickup services prevented footfall. However, online ordering from eateries was the first choice amongst the well-off and young population. The option left for the working class was 'Dhaba' (roadside hotels), which serve food at a lesser price than the restaurants. However, quality, hygiene, and distance remained a concern. Many small-scale entrepreneurs opened domestic canteens to provide food at a low cost but are congested and prone to risk. It is the same for the street vendor, with no healthy food options, limited quantity, low quality, and unhygienic. The four ways of securing food were not suitable for the low-income groups during Covid-19; thus, it is essential to supply hygienic food at a minimal rate.

The significant observations revealed that hygienic practices prevailed in the outlets. They continued to provide meals to the needy during the pandemic and managed well with the takeaways option. Beneficiaries appreciated this action of the State government. These centres stood as quick-serve, distinct, and oriented toward poor people. The affordable, people-centric, need-based model complied with the nutritional needs and hygiene (wearing masks while cooking and serving food, the distance between seats or as per availability of tokens, hand wash facilities, sterilisation of utensils, and disinfecting of dining halls), became a feasible selection, Figure 3. Envisioning its long-term benefits, the Odisha Government extended the operational timings of the outlets in some areas. Positively, this pandemic brought the benefits of aahar outlets to the forefront. However, its success greatly depended on the state's interest in investing in such subsidised canteens. However, the pandemic has put this initiative to the test, which may quicken its transition to a more sustainable food system in the future.

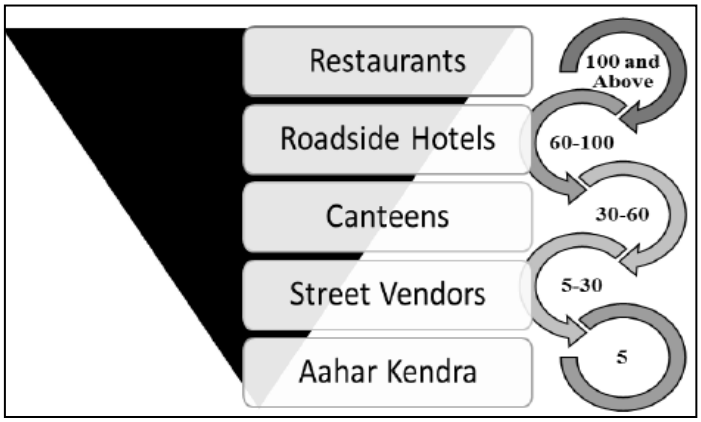

Figure 3. Inverted model on price incurred on daily basis per meal at various food outlets in comparison to the aahar outlet.

CONCLUSION

The food security plan often aims at the rural poor, but this study reflected the needs of the urban poor. The overlapping vulnerabilities during the pandemic deteriorated the conditions of deprived sections in the cities and affected their capability to afford food. The findings revealed that such initiatives would significantly affect other eateries and restaurants in the long term [24].

Few studies suggested converting these 'untargeted' schemes to improve outreach efficiency by identifying only the intended beneficiaries [25]. Similarly, the public envisioned that those who could afford food might opt out of the subsidised meal, but the pandemic proved this wrong as it functioned as intrinsic support for all. The pandemic provided an opportunity to think about reforming the food security system. The subsidised food outlets in collaboration with NGOs could successfully reach the target group in the future. The empirical evidence suggested that the beneficiaries belonged to various sections. This initiative laid new pathways to ensure food security. The most apparent change due to the pandemic is the consciousness of hygiene alongside food security. The Aahar outlets being cleaner and safer could become more efficient by extending their coverage innovatively, e.g., by engaging women's self-help groups in setting up community kitchens. The program can also focus on integrating the rights over food with the job guarantee schemes to build human capacity, increase purchasing power, and ensure food security. This opportunity, to some extent, may tackle the food crisis by maximising the local impact, Figure 4. Though the article limited its data to outlets from a single district, the findings and recommendations will provide governments, stakeholders, and funding organisations with timely information to renew their subsidised meal strategies.

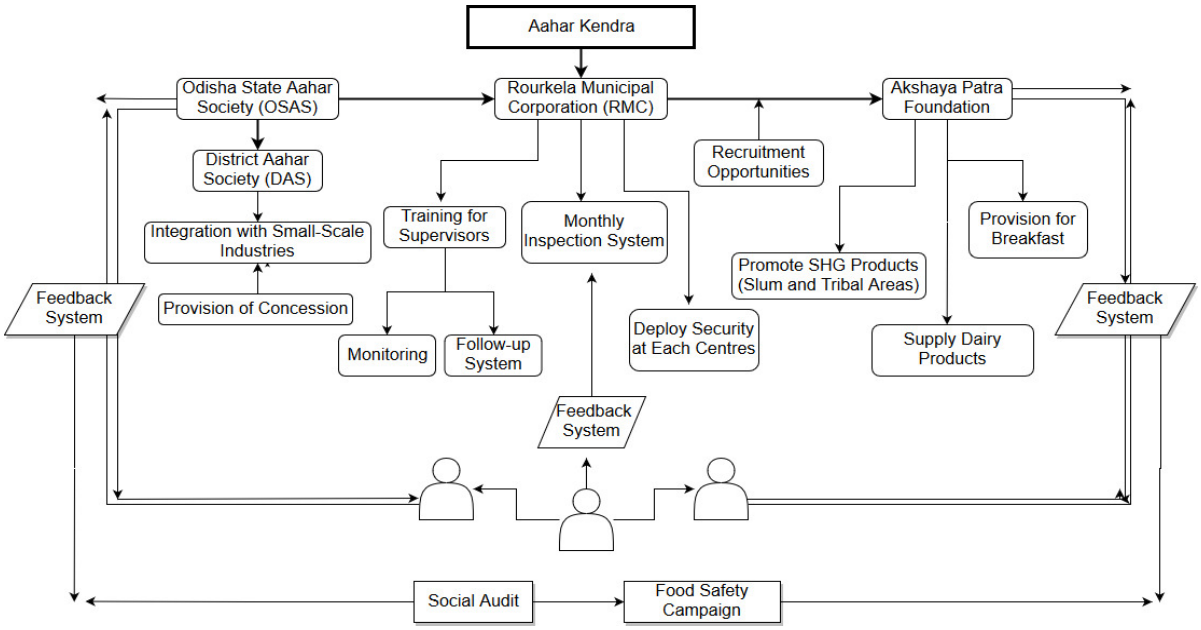

Figure 4. Model for reforming the aahar outlets to make the subsidised meal system effective.

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