

Research article

Urban daily lives and out-of-home food consumption among the urban poor in Nigeria: A practice-based approach

Kehinde Paul Adeosun^{a,b,*}, Mary Greene^a, Peter Oosterveer^a

^a Environmental Policy Group, Wageningen University and Research Centre, Wageningen, the Netherlands

^b Department of Agricultural Economics, University of Nigeria, Nsukka, Nigeria

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ABSTRACT

Understanding the interaction between urban daily lives and patterns of food consumption in the Global South is important for informing health and sustainability transitions. In recent years, the lives of poor urban dwellers have undergone significant transformations which have been associated with shifts in patterns of daily food consumption from household-based towards primarily out-of-home. However, as of yet, little research has explored how changing everyday contexts of consumers' lives interrelate with their food vending-consumption practices. This study seeks to understand the interrelations between everyday urban lives and out-of-home food consumption practices among the urban poor in Ibadan, Nigeria. A situated social practice approach is employed to understand how everyday contexts shape practices of out-of-home food vending consumption. Multiple methods were employed, including GIS mapping of food vending outlets, quantitative consumer surveys, in-depth consumer interviews, and participant observation. The study provides an overview of food vending-consumption practices in terms of the socio-demographic situation of consumers and the embeddedness of food vending in the practice arrangements making up their daily lives. The findings reveal three key daily life practices that interlock with their ready-to-eat foods consumption practices: daily mobility practices, working arrangements, and domestic engagements. These three categories of daily urban practices that have undergone rapid transformation in line with socio-economic change and urbanisation and emerged as particularly important in shaping out-of-home food consumption. The paper concludes by considering the importance of understanding the embeddedness of food vending practices in the daily lives of the urban poor for sustainable food systems transitions in the Global South.

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1. Introduction

This paper focuses on everyday consumption of ready-to-eat foods involving poor urban consumers who live below the poverty line of less than \$1.90 per day in the city (UNDP, 2004). Consuming food is a daily routine for human beings and it is a common practice for urban dwellers to take their daily meal from street food vendors (Esohe, 2012). People in cities in the Global South consume a significant part of their daily food from informal food vendors who provide ready-to-eat foods and beverages on the streets, in small shops, on street corners, marketplaces, motor parks, school premises and along the road (Muyanja et al., 2011; Hill et al., 2016). This positions informal ready-to-eat food

vending (IRFV) practices as critical in sustaining the lives of urban dwellers. The IRFV sector is dynamic and over recent decades more and more people, particularly among the urban poor in sub-Saharan Africa, engage in IRFV practices to secure their everyday food consumption needs (Githiri et al., 2016). For instance, in Nigeria, about 60% of consumers engage with IRFV on a daily basis for their food consumption (Leshi and Leshi, 2017). However, the safety, health-related and hygiene practices of IRFV are a concern to the government and policymakers (Muyanja et al., 2011; Ahmed et al., 2015). Many urban poor face the challenge of accessing quality and balanced diets as they lack adequate income and housing while inadequate infrastructure complicates their mobility.

IRFV plays an important role in the diets of the urban poor in sub-Saharan Africa, including in Nigeria (Steyn et al., 2014; Njaya, 2014; Githiri et al., 2016; Hill et al., 2016; Swai, 2019; Tawodzera, 2019; Wegerif, 2020). However, as of yet, IRFV-consumption practices have not been adequately explored from situated perspectives of the daily lives of poor urban consumers. Rather, most research on IRFV has focused on the perspective of the food vendors (Tawodzera, 2019;

Abbreviations: IRFV, informal ready-to-eat food vending; SPT, social practice theory.

* Corresponding author at: Environmental Policy Group, Wageningen University and Research Centre, Wageningen, the Netherlands.

E-mail addresses: kehinde.adeosun@wur.nl (K.P. Adeosun), mary.greene@wur.nl (M. Greene), peter.oosterveer@wur.nl (P. Oosterveer).

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Resnick et al., 2019) or explored consumption with a focus on nutrition or on mapping aggregated demand side characteristics (Ogundari et al., 2015; Leshi and Leshi, 2017). For example, a quantitative analysis has identified IRFV-consumption as being inversely related to education level, income level and age, as well as to opportunity costs in terms of time availability of householders (Ogundari et al., 2015). Such work has revealed that IRFV-consumption is predominantly practiced by poorer, less educated and younger consumers. Furthermore, nutrition-focused studies have indicated that consumers relying on out-of-home food vending are vulnerable to unhealthy, monotonous diets with low levels of food diversity as food vendors mostly sell fried, high calorie and high energy foods (Morgan, 2015). In general, these studies find that food away from home, including street foods, is higher in fat, less healthy and of lower nutritional quality than food prepared at home (Mwangi et al., 2002; Namugumya and Charles Muyanja, 2011). They call for a reduction in the consumption of out-of-home food in favor of home-based food. Such quantitative and nutrition-focused insights point to the socially differentiated nature of IRFV-consumption among the lives of the urban poor. However, while this is important in painting an aggregate picture of the demand characteristics of IRFV-consumption, little research has yet explored how these dynamics play out in terms of the lived, qualitative experiences of poor urban consumers. As a result, little is known on how the everyday contexts of consumers' lives interrelate with their food vending-consumption practices. Furthermore, extant aggregate accounts fail to differentiate among food vending experiences in terms of diversity and health of foods provisioned (see Adeosun et al., 2022) nor do they consider the social and economic role of food vending in urban communities (see Swai, 2019). For example, Adeosun et al. (2022) found that the diversity of foods provisioned varies greatly between vendors of traditional and processed food, with the former offering more healthy and nutritionally rich foods. A more nuanced understanding of IRFV-consumption practices as they are performed in daily urban lives is needed to consider the contexts and situations in which consumers participate in more or less healthy out-of-home food consumption practices.

As of yet, little research has explored when, how, and why consumers opt for the different street foods options in relation to the wider everyday contexts of their lives. To understand these interconnections, this research adopts a social practice-informed approach which recognizes the embeddedness of food consumption within the broader arrangement of practices comprising daily life (Southerton, 2020). Most research that examines temporal and embedded dynamics of consumption in the daily life contexts has been conducted in Global North settings (e.g. Zukin, 1998; Mohr et al., 2007; Wertheim-Heck and Raneri, 2019; Southerton, 2020) with yet little work that adopts a practice-arrangement analysis in Global South settings, particularly in relation to out-of-home food consumption practices. Work in developed country settings e.g. Burgoine and Monsivais (2013) work and commuting patterns, have contributed to foodscape exposure to take-away food outlets. However, yet little to no work has investigated out-of-home food consumption as it is embedded within the intersecting practices making up the lives of the urban poor in Global South contexts. This is important when considering how broader processes of socio-economic transition associated with work, infrastructure and migration within urbanising environments in the Global South are influencing the daily life engagements and food consumption practices of urban consumers.

Previous studies have taken economic and nutrition perspectives to analyze out-of-home food consumption from the perspective of households or individuals as a unit of analysis without analysing how food consumption is connected with other practices (Ogundari et al., 2015; Leshi and Leshi, 2017; Raaijmakers et al., 2018). Most apply rational choice approaches that see out-of-home food consumption as primarily the result of conscious and deliberate choice-making by individual buyers. In this study, we depart from this work by instead applying a Social Practice Theory approach to understand and analyze how daily lives

interrelate with everyday out-of-home food consumption as routinized practices. The study unravels its empirical evidence from these daily routines as people engage with their day-to-day activities. In doing so, we analyze arrays of interconnections between food-related lifestyles and out-of-home food consumption as bundles of practices as they are connected, performed and structured in relation to other practices in daily life as well as wider food systems of provision.

Specifically, the following research question guides the analysis in the paper: In what ways can out-of-home food consumption practices be understood as being shaped by the daily lives of urban poor consumers in the context of urban food provisioning? Applying a situated social practice analysis, the focus is on mapping out-of-home food consumption practices in terms of their meanings, performances and embeddedness within daily lives and practice arrangements. In what follows, we first elucidate on the practice theoretical conceptual framework underpinning the analysis, followed by a description of the methodological approach and research context. The remainder of the paper then presents and discusses findings concerning out-of-home food consumption and its embeddedness in daily practice arrangements and the implications of this for food systems transitions in the Global South.

2. Literature review

2.1. Out-of-home food consumption practices

Previous studies have analyzed how street foods influence consumption patterns of urban consumers (Hill et al., 2016; Gupta et al., 2018); as well as consumer attitudes and behavior towards risk and hygiene in ready-to-eat food vending (Gupta et al., 2018). Earlier research has also looked into food preferences, purchasing habits and nutritional characteristics of food that is routinely purchased and consumed by street food consumers (Simopoulos and Bhat, 2000; Hill et al., 2016). Different food demand attributes such as the convenience of fast food have also been studied (van der Horst et al., 2011). According to this literature, different food demand attributes influence consumers' attraction to street foods (Edwards, 2013). The consumption interests of people on street foods are changing, increasing, and taking on a more dynamic dimension in their preferences and attributes. Table 1 shows previous related studies on out-of-home food consumption from different perspectives and their findings. To date, most work has been conducted through quantitative methods and approaches that emphasize individual choice and behaviours. Little work has been conducted through a situated, sociological perspective that can uncover insights into how wider societal and daily life contexts influence consumers' street food practices. In progressing a novel practice investigation of out-of-home street food consumption among urban poor consumers in Nigeria, this research begins to address this gap.

2.2. Applying social practice insights to out-of-home food consumption

Departing from perspectives that view food as an outcome of consumer choice, social practice theories have gained prominence as a means of studying food in a way that connects daily life to wider contexts, including food environments and interconnecting systems of provision (Wertheim-Heck and Raneri, 2019). Such work has revealed the importance of situated, practice analysis for uncovering the complex social processes shaping how and why people consume the way they do in various social, cultural and food environment contexts. Previous literature revealed that daily life actions, such as work, and mobility patterns, have exposed consumers to food vending outlets (Burgoine and Monsivais, 2013). However, it is unclear in the literature how these daily life contexts interlock with and shape out-of-home food consumption practices. For instance, in many Global South settings, urban life is comprised of complex daily life activities which can configure certain patterns of out-of-home consumption practices, for example, due to distances from residential areas to workplaces and also inadequate

Table 1
Findings of previous literature relating to out-of-home food consumption.

Authors	Period	Title	Discipline/methodology	Main findings
Ogundari et al.	2015	Household demand for food away from home (FAFH) in Nigeria: the role of education	Economics/quantitative	Household income and households with younger age cohorts increase the probability of consuming Food away from home.
Thornton et al.	2013	Employment status, residential and workplace food environments: Associations with women's eating behaviours	Nutrition/quantitative	Employment status did not modify the associations between residential food environments and eating behaviours. Having access to healthy foods near the workplace was associated with healthier food consumption.
Burgoine and Monsivais	2013	Characterising food environment exposure at home, at work, and along commuting journeys using data on adults in the UK	Nutrition/quantitative	Work and commuting environments contributed to foodscape exposure to takeaway food outlets.
Bezerra et al.	2013	Consumption of foods away from home in Brazil	Economics/quantitative	Consumption of food away from home in Brazil was reported by 40% of respondents. This percentage decreased with age and increased with income in all regions of Brazil and was higher among men and in urban areas.
Miura et al.	2012	Socioeconomic differences in takeaway food consumption among adults	Economics/quantitative	Takeaway foods made a greater contribution to energy, total fat, saturated fat and fibre intakes among lower educated groups. Lower likelihood of fruit and vegetable intakes were observed among "less healthy" take away consumers
Karamba et al.	2011	Migration and food consumption patterns in Ghana	Economics/quantitative	Migration appears to increase overall food expenditures resulting in a shift toward the consumption of potentially less nutritious categories of food, such as sugar, beverages, and eating out.
van der Horst et al.	2011	Fast food and take-away food consumption are associated with different lifestyle characteristics	Economics/quantitative	Take-away food consumption was found to be associated with gender (males), age (40–59 years), income, education (middle) and mental effort.
Mutlu and Gracia	2004	Food Consumption Away from Home in Spain	Economics/quantitative	Income has a positive and significant effect on food consumption away from home.

housing facilities associated with overpopulation and rural-urban migration. Work and workplaces are mostly informally structured with no regular opening and closing times in the low-income areas. The urban poor may likely be experiencing these complex contextual conditions as they are of low income with inadequate financial stands to overcome these challenges. Advancing on previous literature in the Global North, this study analyses the interlocking of daily life practices with out-of-home food consumption among the urban poor, a topic which is not well understood in either Global North or South contexts. Consuming food is a daily routine for human beings and closely connected with food provisioning while being rooted in socio-cultural and governance contexts. In contrast with the nutrition and economic studies of out-of-home food consumption conducted to date, the social practice framework we develop in this paper allows for uncovering how wider contexts of daily lives work to spur demand for out-of-home food and the emergence, expansion, and continued reproduction of IRFV-consumption practices.

In seeking to understand the interconnections between everyday life and out-of-home food consumption, the analysis in this paper draws on several concepts from practice theories, including Spaargaren and Van Vliet's conceptualization of consumption practices at the intersection of lifestyles and systems of provision (Spaargaren and Van Vliet, 2000) and an understanding of lifestyles (Giddens, 1991) as constituted by and made up of practice-arrangement bundles (Schatzki, 2016). We first draw on Spaargaren and Van Vliet's model to connect individual daily lives with wider systems of provision in understanding how practices emerge and sustain over time (Spaargaren and Van Vliet, 2000). In addition, we adopt a conceptualization of daily life practices as "more or less integrated sets of practices" (Giddens, 1991: 81) which comprise an individual's routine everyday activities and are held together in practice-arrangement bundles (Schatzki, 2016). Understanding how links between practices form and are held together to maintain certain forms of consumption has been a central focus of practice theoretical analysis in food studies. For example, research in Global North contexts has studied the interlinks between food, mobility, and working practices, revealing, for example how different working arrangements (such as working from home or daily commuting), influence how food is purchased and consumed (Southerton, 2020; Hoolohan et al., 2021). We build on this

work to apply our conceptual tools to advance insights into how food vending-consumption practices intersect with the daily lives of urban poor consumers in a Global South context (See Fig. 1). Fig. 1 seeks to represent how daily life practice arrangement bundles connect with wider food systems of provision of food vending practices to shape out-of-home food consumption practices.

This study examines how out-of-home food consumption among the urban poor is embedded within and shaped by daily life practices and practice-arrangement bundles. Specifically, it explores how intersecting social practices in daily life comprising urban everyday actions and systems of provision, shape the performance and patterns of street foods consumption among urban dwellers. Attention is paid to different kinds, forms, and patterns of IRFV-consumption, including processed and more healthy traditional food vending, and its relation to wider contexts of poor urban consumers' lives. The wider urbanizing environment is shaping how daily practice arrangement bundles interplay, intersect, and co-evolve with out-of-home food vending-consumption practices (Fig. 1). The paper analyzes these from a situated everyday life perspective.

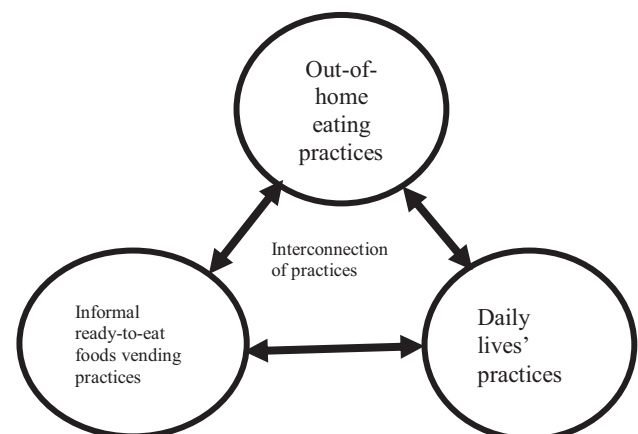


Fig. 1. Diagram showing the interconnections of arrays of practices.

3. Material and methods

3.1. Research context

This research explores the embeddedness of IRFV-consumption practices in the daily lives of low-income urban residents in Ibadan, Nigeria. We selected the urban poor because they constitute the majority of the city inhabitants and are most vulnerable in terms of accessing a healthy and balanced diet. Even though some middle-income groups also consume ready-to-eat foods, the majority of the out-of-home consumers are low-income earners because ready-to-eat food is cheap, so with little money they can buy food. Most of these people live below the urban poverty line of \$1.90 per day (UNDP, 2004) and the Nigeria national minimum wage of Naira 30,000 (\$77) per month and far below the average income of Naira 339,000 (\$880) per month. This research builds on previous studies using nutrition and economic perspectives on food consumption (Raaijmakers et al., 2018), in order to more explicitly advance insights into the socio contexts shaping food consumption. Ibadan houses different research institutes and one of them is the International Institute of Tropical Agriculture (IITA). The city has about 4 million inhabitants (Adelekan, 2016) and is highly multicultural, bringing together people from different parts of Nigeria and from around the world. Administratively, Ibadan consists of eleven Local Government Areas (LGAs), seven located in the Northern part of the city, three in the Southern part, and one at the boundary between the Northern and Southern parts.

Ibadan is a dynamic city with important social and economic functions. It is the capital of Oyo State and located in the Southwest of Nigeria. It is one of the four big cities in Nigeria in terms of city development and population. The city has a complex food system in which ready-to-eat food vending is very prominent.

The research was carried out in the low-income areas of Ibadan to investigate the IRFV-consumption practices of the urban poor. The study adopted a contextualized sampling format whereby consumers were recruited from a range of IRFV outlets.¹ Information about low-income urban areas was collected from the state ministry and used to select the Local Government Areas (LGAs) to be included in the study. The researcher selected two LGAs from the north, one LGA from the south, and one LGA from the center, making a total of four LGAs. Two communities were selected from each of the four selected LGAs to make a total of eight communities identified for the study. The selected LGAs and communities were: (1) Ibadan northwest LGA, selected communities Ologuneru and Eleyele; (2) Lagelu LGA, selected communities Akobo and Iyana church; (3) Ido LGA, selected communities Apata and Apete; and (4) Southwest LGA, and selected communities Odo-ona and Osasimi.

3.2. Mapping and categorizing food vending

In order to identify and recruit consumers at different IRFV outlets, the principal researcher (first author) and four field officers who are MSc students of the University of Ibadan, Nigeria mapped the food vending outlets in the selected eight low-income communities using Geographical Information System (GIS) software from the period of (July–September 2020). GIS mapping was completed by the team involving the first author and four field assistants. The purpose of this aspect of the methodology was to represent and analyze the food vending environment in the selected communities and to aid the sampling of food vending outlets for participating in the qualitative interviews and survey. ArcGIS 10.5 software was used to develop maps with a scale of 1: 16,093,440 for the Northern part of Ibadan and 1: 8,046,720 for the Southern part of Ibadan. 686 food vending outlets were mapped and presented on a map (Fig. 2).

¹ See related research conducted by the authors that focused on the experiences and practices of food vendors themselves (Adeosun et al., 2022)

These food vendors were categorized into: (1) Traditional Food Vendors (serving primarily local foods such as cooked rice, yam, soup, pounded yam, eba and amala); (2) Processed Food Vendors (fried foods, snacks and beverages); and (3) Unprocessed Food Vendors (fruits and vegetables) (see Adeosun et al., 2022 for a detailed account of these food vending categories). In this study, traditional food is referred to as locally made meals, that is often of healthier and more diverse food quality, while processed food is mostly snacks such as meat or fish pie, crisps/chips, biscuits, and highly processed and fried food of lower health and nutritional value (Adeosun et al., 2022). Most out-of-home food provisions in Ibadan fall within these categories. As outlined in Tables 2, 319 traditional, 269 processed and 98 unprocessed food vending outlets were mapped in the selected communities in Ibadan.

3.3. Data description, collection and analysis

In this study, we deployed a mixed-method approach which included GIS mapping of food vending outlets, a survey questionnaire to collect quantitative information on the socio-economic attributes of the consumers and some of their food consumption behaviours, and finally qualitative in-depth interviews to gather insights into their food-related everyday life practices.

Primary data was collected through surveys by administering questionnaires to the consumers, semi-structured in-depth interviews were done following a list of interview guide (see attached Supplementary Information for questionnaire and interview guide) and participant observation. The methodology involved a number of steps that involved first mapping and categorizing out-of-home-food-vending (as described above) and then selecting a smaller number of outlets from which to survey and interview consumers and engage in participant observation to generate an understanding of IRFV practices and their embeddedness in different consumer life contexts.

Within the eight communities, we selected 60 vending outlets from all mapped food vending outlets which cut across the food vending categories. This included 30 traditional food vendors, 20 processed food vendors, and 10 unprocessed food vendors to make a total of 60 food vending outlets (Table 3). The food vending outlet selection was based on capturing vendors across the three categories as well as the consent of the food vendors to allow us to stay at their outlet and conduct observations and the survey. The onsite surveys conducted at these outlets were undertaken by the principal investigator (first author) and four field research assistants of the University of Ibadan. A total of 451 surveys with out-of-home food consumers were completed (see Table 3 for a breakdown of the number of consumers surveyed according to the IRFV outlet categories selected). The researchers stayed put in the selected food vending outlets during the morning, afternoon, and evening and during different days of the week and conducted the survey with consumers as they visited the vendor for purchases. The purpose of the survey was to generate an overview of the socio-demographic characteristics of the consumers and assist in the recruitment of a diverse sample of consumers to partake in more in-depth qualitative interviewing. The survey captured information such as income, age, marital status, occupation, and the type and frequency of meals eaten out by the consumer.

To further explore the consumers' experiences, IRFV-consumption practices and daily lives, a sub-sample of 45 consumers was selected for further qualitative interviewing. These interviews were undertaken with the consumers at a later date at a location of their choice (such as their home or a public place). From the category of traditional food vending, 20 consumers were selected, 15 from the category of processed food vending, and 10 from the category of unprocessed food vending (See Table 3). In addition to seeking a broad representation across the food vending categories, the interview sampling strategy sought to obtain diversity in terms of wider characteristics of consumers

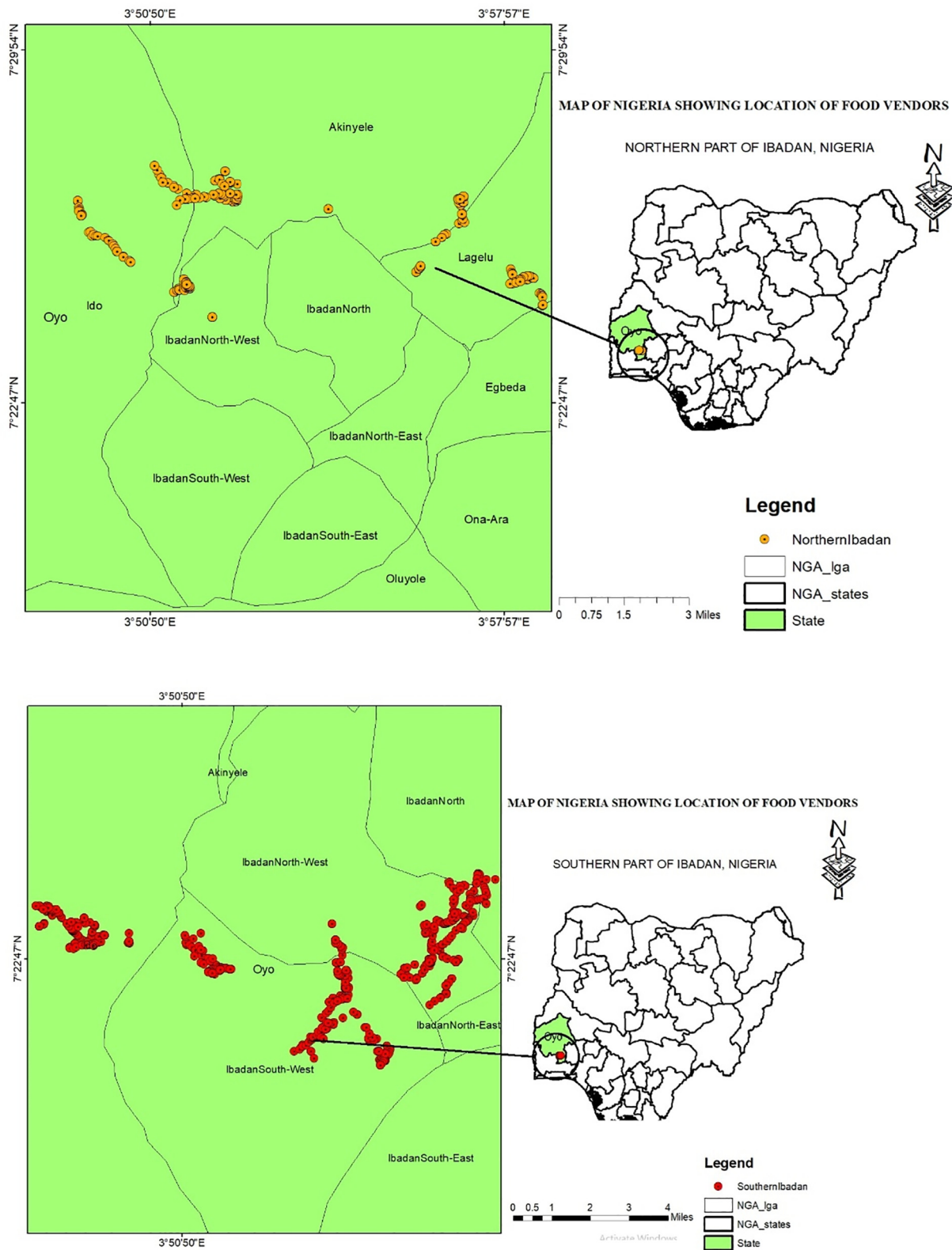


Fig. 2. Map of the study location.

concerning for example their age, occupation, and family situation. Written and verbal consent was obtained from all participants. A practice-informed interview schedule structured the discussions on citizen's practices concerning their out-of-home IRFV-consumption and its

embeddedness in their daily lives. Each interview lasted approximately 30 to 45 min.

Insights from the survey and the interviews were complemented with participant observation of the consumers buying and eating food

Table 2
Mapping results of the selected communities.

Food vending outlets	Frequency	Percentage (%)
Traditional	319	46.51
Processed	269	39.21
Unprocessed	98	14.28
Total	686	100

at the food vending outlet. The survey and the (passive) participant observation took place concurrently in the food vending outlet. The researchers were placed there for several days of the week.

Data were recorded and subsequently transcribed and analyzed using qualitative analysis software (Atlas ti.). An inductive analysis method was applied to identify themes and sub-themes in the interconnections between daily lives and food consumption practices. Data was collected in the period from March to May 2021. Participant interview data were compared against socioeconomic indicators and contexts to understand how their daily lives interrelate with their out-of-home food consumption practices. Further analysis was done within each indicator to identify additional variation. The following socioeconomic indicators were used: gender, age bracket, occupation, income, marital status, and living situation. Although, this study was conducted during the COVID-19 pandemic, in Nigeria all lockdown measures had been officially lifted and the food vendors were operating during this period. In addition, all precautionary COVID-19 measures were taken with the interviewees such as keeping 1.5 m. social distancing and wearing a facemask by the respondents and the interviewers.

3.4. Quantitative research

Quantitative survey data were collected at food vending outlets which were purposively selected from the results of our GIS mapping. The consumers for the study were randomly selected. To examine the causal relationships between out-of-home food consumption and socio-economic factors, we employ Ordered Probit regression analysis. The response variable is an ordered variable: whether food is consumed out of home (1) occasionally; (2) sometimes; and (3) regularly. The Ordered Probit model was analyzed with STATA packages.

The model for the regression is as follows:

$$\begin{aligned} \text{Freq of out - of - home food consumption} &= b_0 + b_1 * \text{gender} + b_2 * \text{age} + b_3 * \text{trading} + b_4 * \text{artisan} \\ &+ b_5 * \text{marital status} + b_6 * \text{living situation} + \log b_7 * \text{income} \\ &+ b_8 * \text{breakfast lunch dinner} + b_9 * \text{breakfast lunch} + b_{10} * \text{lunch} \\ &+ b_{11} * \text{distance workplace to foodoutlet} \\ &+ b_{12} * \text{distance home to workplace} + \epsilon \end{aligned}$$

To test for the collinearity of the explanatory variables, we conduct the correlation coefficient matrix. The results confirm that the explanatory variables have no significant multi-collinearity.

Table 3
Showing number of initiatives collected for the paper.

Food vending outlet	Selected food vending outlets for survey	Surveyed consumers	Consumers selected for interview per food vending category
Traditional food vendors	20	211	30
Processed food vendors	15	143	20
Unprocessed food vendors	10	97	10
Total	45	451	60

4. Results

In presenting our findings, we first provide an overview of the socioeconomic attributes of the consumers. We also analyzed the quantitative empirical causal relationships between the frequency of out-of-home food consumption and socio-economic factors. Building on this we then draw on the qualitative interview data and participant observations, to present an analysis of the embeddedness of food vending-consumption in the daily lives of urban poor.

4.1. Brief description of socioeconomic attributes of out-of-home food consumers

Socioeconomic attributes of the out-of-home consumers are presented in Table 4. Reflecting the findings from previous research, the survey indicated that most out-of-home food consumers are low-income young adults, ranging from 21 to 44 years. About 48.7% of all consumers earn an income between Naira 10,000 and 40,000 per month, indicating they are very low-income earners receiving far below the Nigerian national average of Naira 339,000 per month. The survey recorded a slightly higher number of males (54.5%) compared to females (45.5%) taking their food from food vendors. This aligns with findings from Hill et al. (2016) who recorded more male (55.6%) than female (44.2%) food vending consumers. In terms of occupation, the majority of out-of-home food consumers are traders ('trading' - 41.9%) or skilled craft workers ('artisan' - 38.4%). Concerning their family situation, 52.3% of out-of-home food consumers are married and 45.9% are single. See Table 4 for a detailed overview of these socioeconomic characteristics. Regarding the out-of-home eating habits of the consumers surveyed, eating out is a common practice, with 33.6% of the respondents reporting that they eat most of their meals out regularly and 47.7% record eating out sometimes. However, more specific questioning revealed that the majority (56.8%) ate at least one meal out daily, 25.3% eat two meals out daily and a smaller group (14.6%) eat all three meals out daily. This resonates with findings from Hill et al. (2016) that most consumers (43%) bought street foods two to three times per week, while a significant number (38.3%) bought street foods almost every day, with 19% buying street foods about once a week or once or twice a month. Among the main meals of the day, lunch is consumed out-of-home by 41.9% of all consumers, breakfast by 16.6%, while 20.4% eat both their breakfast and lunch out-of-home.

4.2. Frequency of out-of-home food consumption

Table 5 (Appendix A) presents the regression results for the frequency of out-of-home food consumption and predictive variables. The results reveal that socio-economic factors are important determinants of the frequency of out-of-home food consumption. Although some factors are not statistically significant, they have an expected directional relationship with the frequency of out-of-home food consumption. Occupations such as trader and artisan are positively and statistically significantly related to the frequency of out-of-home food consumption. The distance from the workplace to the food outlet is another factor determining why consumers engage in street foods on a regular basis. Regarding the kind of meals eaten out, our empirical findings reveal that some consumers access all their daily meals from street vendors on a regular basis, while others access their breakfast and lunch on a regular basis. This confirms the importance of street foods for the food security of poor consumers.

4.3. Interconnections between consumers' socio-economic contexts and out-of-home food consumption practices

The analysis revealed different socio-economic contexts of consumers' lives and the interrelations of this with out-of-home food consumption. Our findings reveal that both young and middle aged

Table 4
Socio-economic characteristics of out-of-home consumers.

Attributes	definition	freq	%	Mean (standard deviation)
Age				33.044 (0.551)
	>20	62	13.7	
	21–32	187	41.5	
	33–44	128	28.4	
	45 and above	74	16.4	
Gender				
	Female	208	45.5	
	Male	243	54.5	
Occupation				
	No job	9	2	
	Trading	189	41.9	
	Artisan	173	38.4	
	Student	43	9.5	
	Civil servant	35	7.8	
	Farmer	2	0.4	
Income				38,671.84 (1284.84)
	>#10,000	68	15	
	#10001–40,000	220	48.7	
	#40001–60,000	94	21	
	60,001–and above	69	15.3	
Marital status				
	Single	207	45.9	
	Married	236	52.3	
	Widow	6	1.4	
	Divorce	2	0.4	
Living situation				
	Living with family member	365	80.9	
	Living alone	86	19.1	
Frequency of out-of-home food consumption				
	Regularly	150	33.3	
	Sometimes	215	47.7	
	occasionally	86	19	
Part of meal eaten out				
	Breakfast	75	16.6	
	Lunch	189	41.9	
	Dinner	13	2.9	
	Breakfast/lunch	92	20.4	
	Breakfast/dinner	8	1.8	
	Lunch/dinner	10	2.2	
	Breakfast/lunch/dinner	64	14.2	
Most patronised food vending category				
	Traditional	286	63.4	
	Processed	97	21.5	
	Unprocessed	68	15.1	
Location of food vending outlet				
	Along the road	202	44.8	
	Market square	69	15.3	
	Along the street	158	35	
	Motor park	21	4.7	
	Work place	1	0.2	
No. of meals eaten out daily				
	Once	256	56.8	
	Twice	114	25.3	
	Three times	66	14.6	
	Four times	15	3.3	
Distance from workplace to food outlet				0.101 (0.008)
	≥0.100	338	74.8	
	0.1001–0.700	107	23.7	
	0.7001–1.3	5	1.1	
	1.3001 and above	2	0.4	
Distance from home to workplace				5.234 (0.322)

Table 4 (continued)

Attributes	definition	freq	%	Mean (standard deviation)
	≥ 0.500	39	8.6	
	0.5001–25.375	409	90.5	
	25.37501–50.250	2	0.4	
	50.2501 and above	2	0.4	
		451	100	

adults engage in the services of food vending. However, observation and quantitative results revealed that young adults are the most frequent in the food vending outlets. This aligns with previous research which has reported a positive relationship between being a young adult and out-of-home food consumption (Ogundari et al., 2015). Regarding occupation, the majority of the respondents work in informal jobs such as traders and artisans, and this informal work context influences the frequency of their out-of-food consumption. Most consumers in the informal job category reported that they eat most of their meals from food vendors. The finding further aligns with the quantitative results as trading and artisan work categories were found to have a positive and significant relationship with the frequency of out-of-home food consumption. This indicates that consumers who occupy informal jobs engage in food vending-consumption on a regular basis (see Table 5 in Appendix A). The qualitative discussions revealed that such informal workers face work-related time constraints in their daily engagements due to the kinds of jobs they have.

“.....I am a driver, I leave home as early as 4.30 a.m, so I don't have time to eat food at home because I must come early to queue in the motor park so that I can see morning customers carry, so I come to eat my here to breakfast and lunch often, (driver, age 48, male, live with family, distance commuted 3km)”.

These jobs have significant temporal demands on daily life, with very early starts and late finishes. Furthermore, many low-income workers reported juggling multiple jobs to secure their income and interviews revealed that they reported feeling constrained in having sufficient time to prepare their food at home:

“.....The reason I eat out-of-home is that ...I don't have time because of my work, most times I work in my workshop and I do outside work. My work is too demanding (welder, age 30, male, live alone, distance commuted 1.5km)”.

Consumers with formal jobs patronize food vending but not as much as those with informal jobs. Those with formal, more secure work sometimes engage in the service of food vendors for their breakfast and a few take their lunch from processed food vending outlets but most have their dinner at home. This may be attributed to the fixed end of the working day for people with formal jobs while those with informal jobs often only stop working late in the evening. The following trader's comment highlights the constraints faced by informal workers and how this shapes their reliance on out-of-home food vending:

“.....You see the nature of my work demands my time. People come here to play games. Some games close by 8:15 pm, another one closes by 9:30 pm, 12 pm, so there is no time to prepare my own food (trader, age 32, male, live alone, distance commuted 1km)”.

The following participant's account also resonates with others in the sample:

“.....I can't go through the stress of cooking at home after going through the stress at my place of work. I don't even have the time to be doing that, (carpenter, age 24, male, live alone, distance commuted 3.5km).”

Regarding the marital status of the out-of-home consumers, our empirical results in Table 5 (Appendix A) show that consumers who are single eat out on regular basis. This was aligned with the story relayed by the consumers during the interview as the single and married gave us their own separate accounts on the frequency of out-of-home food consumption. The married consumers reported that though they patronize food vendors, it is not on a regular basis compared to unmarried. This is also evident in our quantitative results in Table 5 that married consumers engage the services of food vendors “sometimes”.

Regarding the location of food vending outlets that consumers patronize, observation revealed that many out-of-home consumers who are commuters engage with food vendors who sell along busy roads. These consumers are commonly mobile informal workers or people walking along the road who most times engage with processed food vendors on the go to get food that can be eaten on the go or inside their vehicle. In addition to locations of food vending outlets on roadsides, our observation revealed that most food outlets feature near low income workplaces; for example, within motor parks where mechanics, welders and other tradesmen work and on marketplaces where traders spend their time. This aligns with the findings of Rosales-Chavez et al. (2021) that street food vending outlets were most often found near homes, transportation centers, and worksites so that consumers just have to take a short walk to the food vending outlet to get their food. In formal workplaces, food vending is situated a bit at a distance and consumers have to walk further to get food from a vendor. These food vendors are located at strategic points in the low-income working areas. Observations revealed that vendors located in these informal working areas are the busiest, with consumers present from very early in the morning to late in the evening. Both the qualitative and quantitative results revealed that distance from the workplace to food vending outlets has a negative relationship and is statistically significant with the frequency of out-of-home food consumption. This implies that out-of-home consumers engage the services of food vendors as the food vending outlets are situated close to the workplace.

4.4. Interlocking of daily life's practices with “kinds and forms” of ready-to-eat foods

People's daily engagements are important and influence the kinds of food they eat and thereby also the kinds of foods provisioned by food vendors. We found that consumers involved in different practices in their daily lives, demand different kinds of food and food in different forms. Most consumers with work practices that require physical strength demand high-energy foods and full meals. Traditional food vending supplies the energy and other nutrients they demand.

The nature of jobs also influences the kinds and forms of foods consumed. Some out-of-home food consumers reported that they patronize traditional food vending outlets because they feel these meals serve their daily needs better. They prefer traditional foods because they are seen as providing the sustenance needed to withstand their daily engagements.

“.....There are some foods that supply energy, one needs to consider the nature of the job when deciding what to eat, because of the nature of my job, I do go for food like swallow (solid), bread, yam, etc. I cannot go to a canteen now and purchase rice, it won't be up

to two hours before I digest everything and that is why I take swallow in the afternoon, (mechanic, age 41, male, live with family, distance commuted 2.5km).”

According to this participant, food such as rice is not substantial enough to sustain his physically demanding work, whereas swallow is. These requirements for their work practices influence their food practices and what category of vendors they seek to obtain their food from. Some of these consumers take snacks and drinks from processed food vendors in the afternoon, while some other processed foods, such as fried buns, beans and cake, are sought in the morning. However, most consumers view processed foods as just snacks for refreshment and not as real foods.

“.....Most times, when I have eaten solid food, I could still eat snacks just as refreshments at the same time, (hairdresser, age 43, female, live with family, distance commuted 2km).”

In the morning, some consumers avoid some food items because of the kind of work they do. They believe that such food when eaten in the morning will make them feel heavy and even sleepy at work. These are swallow (solid) foods such as *amala*, *eba*, *fufu*, and *pounded yam*. Most office workers and students avoid such foods in the morning as it may prevent them from working effectively in the office and in the morning they rather go for foods like rice and beans.

Consumers who commute every day to work prefer snacks because they are convenient when eaten inside a moving vehicle or when taken home. They indicated that they prefer snacks to keep their stomach at ease pending the time until they have access to their main traditional meal. Another category of respondents has daily mobility engagements because they work at multiple locations during the day. They travel from one location to another so reported that they eat at any location when they are hungry. This group of consumers mostly engages with mobile food vendors, or with food vendors who are close to where they work at that particular time. This category of out-of-home consumers doesn't have specific food vendors they buy from as do other out-of-home consumers.

“.....I don't stay in one place, I move around to work, so I eat anywhere I find food when I am hungry, (driver, age 36, male, live with family, distance commuted 8.5km).”

“.....I am into house interior decoration. I do most of my work at the client's place that is why I can say the nature of my work is mobile, this in a way makes me eat outside the home, (house decorator, age 29, female, live with family, distance commute 7km).”

Fruits and vegetables are consumed by few consumers in relatively small quantities because they are considered very expensive foods which only a few can afford. Even the few who do buy fruits and vegetables don't see them as real food as they believe they should be eaten before or after the main meal. Most consumers who buy fruits take them home to eat them there except some who eat them at the vending point or in their workplace. Some consumers prefer fruits that are already peeled for quick consumption, so they don't waste time looking for where and how to peel them.

“.....I preferred they peel the oranges, pawpaw, pineapple and watermelon already to save me the stress of having to do that at home, (civil servant, age 40, female, live with family, distance commuted 4km).”

However, some consumers are concerned that they cannot guarantee the hygiene of the process if the fruit is already peeled.

Concerning the period of the day food is consumed in the food outlet, some consumers reported that because they don't have time to prepare food, they eat most of their daily meals at the food vendors. Some said that they eat all their daily food from food vendors while some only eat breakfast and lunch out as they take their dinner at home. From the results of quantitative analysis, breakfast and lunch were found to be significant and have a positive relationship with the frequency of out-of-home food consumption (see Table 5, Appendix A).

4.5. Interconnections between convenience and taste in informal ready-to-eat food vending practices

The in-depth qualitative inquiry revealed that out-of-home food consumption forms part of the daily food practices of low-income workers. This is due to their perceived need to achieve convenience in the context of their harried working lives, which limits their ability to cook at home hassle-free. As discussed above, the majority of interviewees highlighted the role of IRFV as enabling them to avoid the stress of cooking after a hectic working day.

The majority of the consumers agreed that it is particularly convenient to eat out in the morning before going to work because this facilitates minimizing stress during the morning rush to work. Cooking food in the morning demands energy and time which interferes with their mobility requirements and may lead to delays. Most the consumers consider street foods delicious and they prefer to engage with food vendors whose food tastes well. Most consumers recognize the taste of the food sold by their preferred food vendors and therefore they want to return to them. Participant observation at the food vending outlets highlighted the function and role of vending outlets also as social hubs and places of interaction where many customers chatted with vendors and customers as friends, often hanging around the stands to engage in conversation. This attests to the important social role of the vending outlets in neighborhoods, something which has been reported in previous work (Isaacs, 2014; Caramaschi, 2016; Stutter, 2017; Panicker and Priya, 2020).

“.....I come here to eat foods, more so, some of my friends come here too, atimes we hang out here to discuss politics and footballs... we discuss our personal lives jokingly, for instance, our relationships with our girlfriends [laugh]! (motor bike repairer, age 25, male, live alone, distance commuted 2km)”.

While the social and community aspects were discussed, some consumers even consider themselves being locked into the practice of out-of-home food consumption because they don't have another option due to their daily work and domestic practice arrangements. The respondents indicated that eating outside is not always their preference and they only engage in it when they are out of time or in the afternoon, but most times they eat breakfast and dinner at home. For example, the following participant stressed that she felt out-of-home food would never meet the nutritional value and satisfaction levels of food cooked at home:

“.....Although eating out is convenient and always available for consumption, it can never satisfy like food cooked at home, (trader, age 46, female, live with family, distance commuted 5km).”

Many interviewees expressed coping with this by choosing to stick to one particular vendor as their regular provider of meals, which they feel they can trust based on past experience to provide healthier, safer food compared to vendors they have less experience with.

“.....Why I love to patronise the person I have been buying food from regularly is because if I have any complaint, I can easily trace the person and comfortably lodge my complaint. I only buy food from this woman here (barber, age 31, male, live alone, distance commuted 4.5km).”

4.6. Packaging and informal ready-to-eat food vending

It used to be common for consumers to go to a food outlet to sit and eat their food there. However, over time, more opportunities became available for consumers to take their food to their workplace or their home and consume it there so the practices of eating at the vendors and taking food away co-exist today. Different materials are used to package food for customers who do not want to eat their food in the food vending outlet. For instance, cellophane bags and foil are used to package food and some consumers reported bringing their own plates to avoid having to pay extra for the packaging material. This suggests that consumers are taking up some of the storage practices of vendors. For example, Simopoulos and Bhat (2000) found that street food vendors used old jars and bottles, cane baskets, newspapers, and polythene pouches to serve food for takeaway. The interview discussions revealed that feelings of time availability and degree of busyness were important factors for determining whether or not a consumer sits at a food vending outlet to eat their food. Again work practices and contexts are key here. Some consumers are very busy and they prefer to quickly buy their food and eat it on the go or take it back to their workplace. Many expressed that they eat and work at the same time and in this sense out-of-home convenience food enables them to cope with the harried contexts of their daily lives. For processed foods, the most common practice is for consumers to buy and take it on or start to eat along the way as there is often no provision to sit and eat in the processed food vending outlets.

4.7. Daily life's practices: exploring synergies between out-of-home consumption and daily life practices

The practice theory perspective in the study allows us to analyze how urban poor consumers lock-in to out-of-home food consumption practices lies in specific temporal arrangements and interconnections between practices in daily life. It is in the arrangement of practices in daily life in specific temporally organized configurations between work, mobility, and domestic engagements that food consumption occurs. As the preceding discussion illustrates, IRFV and consumption practices are embedded in the broader range of practices that together constitute consumers' daily lives. Of particular interest in modernizing urbanizing contexts are practices related to mobility, work and domestic life. Building on the sections above, this section delves deeper into the relationship between these practices and IRFV practices.

4.7.1. Mobility practices

As the in-depth inquiry revealed, consumers engage in different daily activities, chiefly driven by their working arrangements that shape their dependency on daily consumption of street foods. It was further indicated above that although some consumers eat from home before going to work, the majority of them take their breakfast, lunch, and sometimes even dinner from food vendors regularly. Delving deeper into this, we found that most consumers do not live close to the place where they work, which means they have to travel some distance every day (Dubowitz et al., 2015; Ghosh-Dastidar et al., 2017). This is challenging in an urban area with a large population and a complex transportation system such as Ibadan.

“.....My house to my workplace is very far, if I come to work like this [at 5 or 6 am], I don't reach home again until 8 p.m in the night, and by that time, I am very tired. The distance from home to workplace is far, that is where I could afford [to live], that coupled with traffic means I can't eat home often (filling station attendant, age 34, female, live with family, distance commuted 8.5km)”.

The city's high population density, shaped by patterns of rural to urban migration, and the increasing population of low-income workers (Adelekan, 2016), is leading to traffic congestion, particularly in the mornings and evenings. People travel either by foot, bike or car and have to spend a large amount of time on the road. Most consumers, leave their homes as early as 5.30 am or 6.30 am depending on the nature of their jobs and the expected traffic on the road. For some, particularly transport workers, their job demands them to be at work as early as 6 am and sometimes even earlier. Therefore, when they are in their workplace, they engage with the services of food vendors, mostly for their breakfast and lunch. Often, people have to stay for a long time either at the motor park or along the road to wait for transport to their workplace or to their home. During these periods of waiting, they may engage with the services of food vendors, as they are not sure when they will get to their destination. As these mobilities, work and out-of-home food vending and consumption practices hang together, their dynamics cannot be understood independently from each other. As mobile workers, by the virtue of the nature of their jobs, they move around to different work locations almost every week, and most times the work locations are far from their homes. This category of workers depends majorly on the services of food vendors, as is exemplified by the account of one participant:

“.....my job does not allow me to stay in one work location for too long. I work on different sites almost every week and these locations at times are not close to my house. I need to travel some distance before getting there, (bricklayer, age 44, male, live with family, distance commuted 3km)”.

4.7.2. Consumer's workplace and domestic practices

As the proceeding discussion indicates, most out-of-home food consumers engage with different kinds of jobs that keep them away from home until the evening or night. Furthermore, the temporal and spatial demands and conditions of their work produce daily domestic arrangements in which they are afforded little opportunity to engage in at-home food preparation and consumption.

“.....I am trader, I come to the shop early to meet the demands of early morning customers who want to buy children school materials from me, so don't have time to prepare my morning food because of this (trader, age 47, female, live with family, distance commuted 3km)”.

At times, they prefer buying food out of home because when they come home from work, they are too tired to start preparing food as it will take some time before a meal is ready.

“.....I eat at least twice regularly outside the home due to the nature of my business whenever I'm at work, my breakfast and lunch are to be eaten out-of-home (trader, age 51, male, live with family, distance commuted 3.5km).”

This category of consumers take snacks as their “lunch”, even though they claim this is not a real meal to them. The study found two types of workplace environments that interrelate differently with food vending: the formal and the informal workplace. On the other hand, the kinds of food vending outlets in the formal workplace environment is of more standard because they are more organized, a bit expensive and neater compared to what is obtainable in informal food vending outlets' environment.

There are also some activities that take the time of out-of-home consumers, apart from food provisioning. Some consumers indicate that in the morning they have to do the necessary household chores, prepare children for school, clean the house and therefore lack the time to also

include food provisioning and preparation as these constitute part of their domestic work on daily basis. Otherwise, they feel that they cannot effectively juggle competing domestic and work practices and arrive on time for work. So, to be able to leave home on time they engage the services of food vendors to meet their food needs.

“.....As for household chores which include sweeping, washing plates, preparing children for school and home work – these are done early in the morning and I must still go to work, so I find it difficult combining early morning food preparation with them (trader, age 41, female, live with family, distance commuted 2.5km).

In addition to temporal constraints associated with working conditions, some of the participants reported living in conditions without full access to kitchen facilities, which is common among low income young adults living in the city and migrants. The category of people live in just one room apartment and at times they may be up to 2 to 4 occupants living one room, and hence have no space for activities like food preparation. Some respondents reported that getting their own personal accommodation is a difficult task as they don't have enough money to do that, they are just managing with friends. Reflecting wider patterns of rural to urban migration in Nigeria and other Global South contexts (Pendleton et al., 2014; Adelekan, 2016; Nickanor et al., 2016), recent migrants coming to Ibadan from rural locations were particular constrained in terms of access to accommodation, tending to rely on friends for housing allowing them to work and earn their income. This negatively constrained their ability to cook at home and instead force them to rely on out-of-home food. Moreover, our quantitative results revealed that consumers who live with their family members still patronize food vending outlets frequently. Interviews revealed that people living in a family or friend's house temporarily often don't have full access to the cooking facilities:

“.....I hardly cook food at home because I am presently staying with someone, I don't have an apartment of my own (apprentice, age 27, male, live alone, distance commuted 4km).”

5. Discussion

This paper argues that while insights from nutrition perspectives and economic aggregation studies of out-of-home food consumption in Global South contexts exist, sociological work in this area remains relatively under-represented. Specifically, the interrelations between out-of-home food consumption and food vending practices in the context of the daily lives of urban dwellers are still under-explored. Seeking to begin to address this gap, this paper has sought to advance insights into the social dynamics of out-of-home food consumption in relation to urban poor daily lives. In doing so, we have extended work on practices arrangement bundles from Global North contexts to analyze out-of-home food consumption practices and their embeddedness in daily lives and systems of provision in Global South settings.

Specifically, the analysis in this paper has explored how consumption practices of the poor are embedded within and entangled with other daily practices and wider out-of-home food consumption-vending systems of provision. Drawing on the conceptual framework of Spaargaren and Van Vliet on the interconnections between lifestyles and system of provision, our study reveals interconnections between food system provision and out-of-home consumption practices as they are embedded arrangements of daily life practices, such as those relating to mobility, work, and domestic engagements (see Fig. 3). In the context of urban Ibadan, mobility, work, and domestic practices are bundled in the everyday lives of individuals which interlock with their out-of-home food vending-consumption practices (Fig. 3).

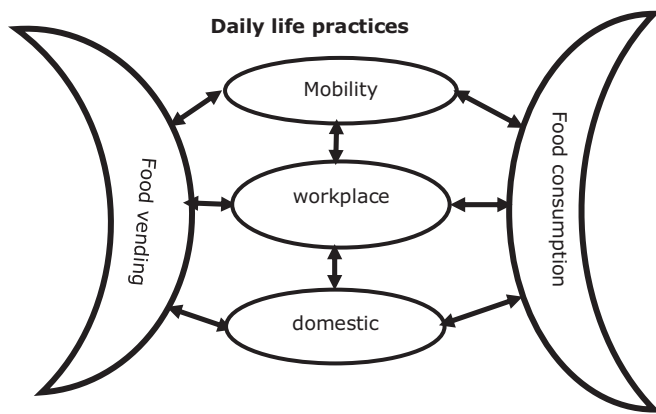


Fig. 3. Interconnections of practices embedded in urban food practices.

5.1. Consumer's socio-economic and out-of-home food consumption

Our study further adds to existing framings by both Giddens (1991) and Spaargaren and Van Vliet (2000) by portraying the importance of the socioeconomic positionality of consumers in shaping daily out-of-home food practice dynamics. Focusing on a particular excluded group of consumers, low-income and insecure workers, our findings indicate that their socioeconomic characteristics significantly shape how the intersections of daily life practices and systems of provision play out. The socioeconomic contexts of low-income consumers' lives play an important role in how food is provisioned in urban areas and how food vending services cater to their daily food needs. Our study revealed the particular importance and structuring role of consumers' work and occupational contexts in patterns and performances of food vending-consumption practices; for instance, people with informal jobs take most of their daily meals from food vendors on a regular basis, because the nature of their job gives them no time to prepare their food at home. This is in contrast to consumers with formal, more secure and higher paying jobs who have the possibility to better plan their daily schedules and manage to prepare at least one or two meals a day for themselves at home. Resonating with findings by other (e.g. Hill et al. (2016)), this study further found that the most reliant food vending consumers often need to juggle multiple low income jobs to make a living. This suggests that the work context of lower income workers results in configurations of daily lives that lock consumers into out-of-home food consumption. Our quantitative findings reveal key socio-economic factors that play an important role in the daily food consumption of the urban poor. The occupation of the urban poor is crucial for what they eat, when they eat and where they eat. Even though some socio-economic factors are not statistically significant, their directional relationships with out-of-home food consumption practices are positive. This implies that these socio-economic factors still play a role as was revealed in our qualitative analysis. Consequently, our mapping reveals that these food outlets are very prominent and important to food security in low-income food environments. Observations during the mapping method revealed that various food outlets are located on strategic points close to consumers' workplaces. Therefore, low-income consumers find it convenient to engage the services of these food vendors due to the fact that the specific temporal configuration and arrangement of practices making up their daily lives create conditions in which it is difficult for them to engage in food preparation and consumption at home. Consumers' discussions about their daily lives revealed a dynamic interaction of the demands of their working practices, domestic and caring responsibilities, living location, and daily mobility practices, which allcombine in influencing their daily out of home food consumption. In light of this, consumers stressed they are aware that food vendors are accessible near strategic points sited close to

their workplaces, so they do not need to worry about their access to food. Even before the food is ready in the morning some consumers are already on standby waiting to buy food. In the meantime they engage in social interactions discussing politics, football, etc. Our analysis adds to accounts that illustrate that food consumption practices are changing from home-based to out-of-home, particularly among this low-socioeconomic group of consumers. The implications of this are that policies and interventions should also be focused on this change and search for opportunities to improve the provision of diverse and more healthy food.

The study further suggests that these dynamics concerning the structuring role of work intersect with other social differences, such as household situations and composition. Urban areas are becoming over-populated as a result of rural-urban migration, so housing facilities are limited in rapidly expanding cities such as Ibadan. The majority of these migrants are poor and lack proper housing arrangements because they don't have the resources to secure accommodation. Most of the time, the houses that poor people can afford are located far from where they work and may not have kitchen and cooking facilities as they often live in rooms with many others. These wider political-economic, urbanisation and spatial restructuring contexts have a huge impact on the emerging lock in of many urban poor consumers to out-of-home food vending-consumption practices as it leads to a larger likelihood of depending on IRFV.

5.2. Daily life's practices and ready-to-eat foods

This study found that out-of-home food consumption practices are influenced by the daily practices of consumers. Practices in everyday life interlock with the degree of frequency and dependency consumers have on IRFV practices for their daily nutritional needs as well as the kinds of food they choose to eat. This implies that the contexts of urban dwellers' daily engagements and daily life practices change in line with broader dynamics in urbanisation and associated work and family dynamics, food vending outlets have expanded to meet their changing daily needs. In light of these dynamics, and the urban food system research and policy should also focus on the food vending sector and recognize its strategic position to see how it can be repositioned to better serve the poor in terms of food security and nutritional health. This aligns with the findings of Mattioni et al. (2020) that individuals have complex practices around food which shape out-of-home food consumption practices. Having access to different kinds and forms of foods in the urban environment enables consumers to survive and cope with their everyday actions in the context of harried and demanding jobs. Previous research has indicated that food vendors actively engage with these routinized everyday actions and try to supply food that fits their demands (Adeosun et al., 2022). Food vendors have knowledge about the interjections between the consumers' daily engagements and the kinds of food they prefer, and they take this into consideration in the selection of their menu settings. Their understanding of consumer daily life's practices not only influences the food items provisioned but also the time when and the forms in which the food is provisioned (see Adeosun et al., 2022). These daily life practices and their intersections with systems of provision should be incorporated into the urban food system framework and taken into consideration when addressing food security. People in cities engage in multiple practices in their everyday life and the dynamics in time and space shape their daily performances including the out-of-home food consumption practices of the urban poor. Traditional food vending is most popular among out-of-home consumers to secure their main meal, because it allows them to participate in the demanding practices constituting their daily lives. Thus traditional food vending seems to fit better into the food system and food security framework of urban Nigeria compared with other food vending categories. This again resonates the findings of Mattioni et al. (2020) who reported that traditional food outlets such as the *Feria* have played

an important role in keeping alive certain aspects of a balanced diet in Costa Rica. On the other hand, fruits and vegetables are patronized less because only a few can afford them while they are also not really seen as a meal but mostly a way to aid digestion.

Most consumers perceive street foods as very convenient because they are always available. They can be bought without stress and do not require physically partaking in their provisioning. Packaging also attracts consumers to IRFV, because they can take the food with them. The consumers know the food vendors who always provide tasteful foods and they go there to regularly buy their food. These demand elements are embedded in street foods and continue to strengthen the social relationships between food vendors and consumers. Since convenience, and taste are important elements in consumer demand, food vendors can build on these to increase their sales. These demand elements in food vending practices co-evolve with the practices of food vendors, which can be harnessed to develop healthier, and more diverse food products for customers.

This study showed that people have urban daily life practices that shape their out-of-home food consumption practices, particularly through mobility, work and domestic practices. The findings reveal that these daily practices influence urban dwellers' out-of-home food consumption practices. These findings build on Castelo et al. (2021)'s call that single practices like eating need to be understood as being embedded in daily routines and connected to other practices that constitute arrangements of practices. Daily life practices are linking different practices together that interplay with food demand and provisioning in urban areas. This means that the balance in the diets of out-of-home consumers depends on the kind and number of food items the food vendor is able to provision.

6. Conclusion

This study highlights the embeddedness of informal ready-to-eat food vending-consumption practices in systems of provision and in daily life practice arrangements of low-income urban dwellers in Ibadan, Nigeria. The informal nature of their jobs was a prominent factor that propels the expansion of out-of-home food consumption practices as well as the food vending outlets supporting them. Food outlets are often situated close to the workplace for easy accessibility. Work, mobility, and domestic practices are critical daily life actions that interfere with the urban food supply system. These interconnecting daily life practices influence how, when, what, and where people consume their daily foods. The food vending sector fills an important gap in accommodating food needs among this group. Previous research has explored how changing temporal and practice arrangements in daily life have shaped consumption practices of various kinds in different Global North settings. However, such insights regarding wider transformations in daily practices and food consumption in the Global South have not been studied adequately through a social practice framework. The findings outlined in this paper relating to the importance of wider daily life dynamics of the urban poor in shaping their food consumption practices may be similar to other contexts, particularly in sub-Saharan Africa, with similar socio-economic orientations and demographic characteristics. However, further work is needed to understand the intersections between transforming everyday lives and consumption in Global south settings. This work can help to offer more critical insights into the ways in which urban lives and the globalizing political-economic dynamics underpinning them, are locking urban poor consumers into certain consumption practice trajectories. This paper argues that to serve the urban poor better in terms of providing daily meals that contain the necessary nutrients for a balanced diet, the food vending sector needs to be better aligned with the daily lives of the urban poor to serve them meals with balanced diets. It may be difficult in developing countries to directly influence the everyday lives of the poor, but the food vending sector may be steered more easily through interventions to improve the type and quality of food provisioned. This may require

further training and education on the importance of providing diverse and healthy meals.

This paper has shown that food consumption is not a singular practice but is interconnected with arrays of different practices which have an influence on how food consumption is shaped in the wider urban food environment. Building on a body of work that explores bundles and complexes of interconnected practices as the site of social life, the social practice outlined in this paper perspective provides a useful framework to understand these interconnections in relation to out-of-home food consumption. Providing insights into how food consumption interacts with broader urban daily lives can help to inform and identify opportunities for (policy) interventions aimed at improving informal ready-to-eat food vending-consumption practices towards more healthy and sustainable food consumption among the urban poor. The intersections between daily life practices and out-of-home food consumption should be taken into consideration in the food system framework as well as in food policy implementation and application. This study is limited as it only covered a small number of food vending outlets in selected low-income urban areas of Ibadan. Also, some consumers had limited time available to be interviewed after having their meal, as they wanted to return to their workplace immediately. Further research is needed that explores how interconnecting practices in daily life influence the food consumption practices of low-income groups as well as other socio-economic groups in Nigeria and other contexts in the Global South.

Declaration of competing interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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Appendix A

Table 5
Ordered probit result: frequency of out-of-home food consumption.

Variable	Occasionally (1)	Sometimes (2)	Regularly (3)
Gender (1 if Male, or 0 if female)	−0.008 (0.031)	−0.003 (0.012)	0.011 (0.044)
Age (years)	−0.001 (0.001)	−0.000 (0.001)	0.001 (0.002)
Occupation			
Trading (1 if trading, or 0 otherwise)	−0.081** (0.038)	−0.037* (0.021)	0.117** (0.058)
Artisan (1 if artisan, or 0 otherwise)	−0.091** (0.036)	−0.044** (0.022)	0.136** (0.056)
Marital status (1 if married, or 0 otherwise)	0.019 (0.037)	0.008 (0.015)	−0.027 (0.052)
Living situation (1 if live alone, or 0 otherwise)	0.052 (0.047)	0.015 (0.010)	−0.067 (0.056)
Income (Naira/month)	−0.025 (0.020)	−0.010 (0.008)	0.035 (0.028)
Part of meal eating out			
Breakfast/lunch/dinner (1 if yes or 0 otherwise)	−0.118** (0.035)	−0.102* (0.052)	0.220*** (0.085)
Breakfast/lunch (1 if yes or 0 otherwise)	−0.131** (0.032)	−0.109** (0.044)	0.241*** (0.072)
Breakfast (1 if yes or 0 otherwise)	−0.042 (0.044)	−0.023 (0.030)	0.065 (0.074)
Lunch	0.005 (0.041)	0.002 (0.016)	−0.007

Table 5 (continued)

Variable	Occasionally (1)	Sometimes (2)	Regularly (3)
(1 if yes or 0 otherwise)			(0.057)
Distance from workplace to food outlet (Kilometer)	0.230** (0.093)	0.094** (0.043)	−0.324** (0.129)
Distance from home to workplace (Kilometer)	0.003 (0.002)	0.001 (0.001)	−0.004 (0.003)

Note: The table report marginal effect. Standard errors are reported in parentheses; significant levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Appendix B. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.spc.2022.04.024>.

References

- Adelekan, I.O., 2016. Urban African Risk Knowledge, Ibadan City Diagnostic Report, Working Paper, p. 4.
- Adeosun, K.P., Greene, M., Oosterveer, P., 2022. Informal ready-to-eat food vending: a social practice perspective on urban food provisioning in Nigeria. *Food Sec.*, 1–18 <https://doi.org/10.1007/s12571-022-01257-0>.
- Ahmed, S., Simiyu, E., Githiri, G., Sverdlik, A., Mbaka, S., 2015. Cooking up a storm: community-led mapping and advocacy with food vendors in Nairobi's informal settlements. IIED Working Paper. IIED, London. <http://pubs.iied.org/10734IIED>.
- Bezerra, I.N., Souza, A.D.M., Pereira, R.A., Sichiari, R., 2013. Consumption of foods away from home in Brazil. *Rev. Saude Publica* 47 200s-211s.
- Burgoine, T., Monsivais, P., 2013. Characterising food environment exposure at home, at work, and along commuting journeys using data on adults in the UK. *Int. J. Behav. Nutr. Phys. Act.* 10 (1), 1–11.
- Caramaschi, S., 2016. Counteracting food deserts. The potential for mobile food vending in regenerating contemporary cities. *Urban Regen. Sustain.* 384.
- Castelo, A.F.M., Martina Sch'af'er, M., Silva, M.E., 2021. Food practices as part of daily routines: a conceptual framework for analysing networks of practices. *Appetite* 157 (104978), 1–10 Special Edition Food and nutrition challenges in Southern Africa.
- Dubowitz, T., Zenk, S., Ghosh-Dastidar, B., Cohen, D., Beckman, R., Hunter, G., Steiner, E., Collins, R., 2015. Healthy food access for urban food desert residents: examination of the food environment, food purchasing practices, diet and BMI. *Public Health Nutr.* 18 (12), 2220–2230.
- Edwards, J.S., 2013. The foodservice industry: eating out is more than just a meal. *Food Qual. Prefer.* 27 (2), 223–229.
- Esohe, K.P., 2012. Increasing trends in the consumption of fast-foods in Nigeria. *Int. J. Arts Humanit.* 1 (1), 95–109.
- Ghosh-Dastidar, M., Hunter, G., Collins, R.L., Zenk, S.N., Cummins, S., Beckman, R., et al., 2017. Does opening a supermarket in a food desert change the food environment? *Health Place* 46, 249–256.
- Giddens, A., 1991. *Modernity and Self-identity: Self and Society in the Late Modern Age*. Stanford university press.
- Githiri, G., Ngugi, R., Njoroge, P., Sverdlik, A., 2016. Nourishing livelihoods: recognising and supporting food vendors in Nairobi's informal settlements. IIED Working Paper. IIED, London.
- Gupta, V., Khanna, K., Gupta, R.K., 2018. A study on the street food dimensions and its effects on consumer attitude and behavioural intentions. *Tour. Rev.* 73, 374–388.
- Hill, J., Mchiza, Z., Fourie, J., Puaone, T., Steyn, N., 2016. Consumption patterns of street food consumers in cape town. *J. Fam. Ecol. Consum. Sci.* 1, 25–35 Special Edition Food and nutrition challenges in Southern Africa.
- Hoolohan, C., McLachlan, C., Jones, C., Larkin, A., Birch, C., Mander, S., Broderick, J., 2021. Responding to the climate emergency: how are UK universities establishing sustainable workplace routines for flying and food? *Clim. Pol.* 1–15.
- van der Horst, K., Brunner, T.A., Siegrist, M., 2011. Fast food and take-away food consumption are associated with different lifestyle characteristics. *J. Hum. Nutr. Diet.* 24 (6), 596–602.
- Isaacs, B., 2014. The tastiest food is in the small streets: the politics of flavor and nostalgia in Bangkok. *Street Food*. Routledge, pp. 213–231.
- Karamba, W.R., Quiñones, E.J., Winters, P., 2011. Migration and food consumption patterns in Ghana. *Food Policy* 36 (1), 41–53.
- Leshi, O.O., Leshi, M.O., 2017. Dietary diversity and nutritional status of street food consumers in Oyo, South western Nigeria. *Afr. J. Food Agric. Nutr. Dev.* 17 (4), 12889–12903.
- Mattioni, D., Loconto, A.M., Brunori, G., 2020. Healthy diets and the retail food environment: a sociological approach. *Health Place* 61, 102244.
- Miura, K., Giskes, K., Turrell, G., 2012. Socio-economic differences in takeaway food consumption among adults. *Public Health Nutr.* 15 (2), 218–226.
- Mohr, P., Wilson, C., Dunn, K., Brindal, E., Wittert, G., 2007. Personal and lifestyle characteristics predictive of the consumption of fast foods in Australia. *Public Health Nutr.* 10 (12), 1456–1463. <https://doi.org/10.1017/S1368980007000109>.
- Morgan, K., 2015. Nourishing the city: the rise of the urban food question in the global north. *Urban Stud.* 52 (8), 1379–1394. <https://doi.org/10.1177/0042098014534902>.
- Mutlu, S., Gracia, A., 2004. Food consumption away from home in Spain. *J. Food Prod. Mark.* 10 (2), 1–16.
- Muyanja, C., Nayiga, L., Nasinyama, N.G., 2011. Practices, knowledge and risk factors of street food vendors in Uganda. *Food Control* 22, 1551–1558.
- Mwangi, A., Den Hartog, A., Mwadime, R., Van Staveren, W., Foeken, D., 2002. Do street food vendors sell a sufficient variety of foods for a healthful diet? The case of Nairobi. *Food Nutr. Bull.* 23 (1).
- Namugumya, B.S., Charles Muyanja, C., 2011. Contribution of street foods to the dietary needs of street food vendors in Kampala, Jinja and Masaka districts, Uganda. *Public Health Nutr.* 15 (8), 1503–1511. <https://doi.org/10.1017/S1368980011002710> New York: Routledge.
- Nickanor, N., Crush, J., Pendleton, W., 2016. Migration, rural-urban linkages and food insecurity. Rapid Urbanisation, Urban Food Deserts and Food Security in Africa. Springer, Cham, pp. 127–142.
- Njaya, T., 2014. Operations of street food vendors and their impact on sustainable urban life in high density suburbs of Harare, in Zimbabwe. *Asian J. Econ. Model.* 2 (1), 18–31.
- Ogundari, K., Aladejimosun, A.O., Arifalo, S.F., 2015. Household demand for food away from home (FAFH) in Nigeria: the role of education. *J. Dev. Areas* 49 (2), 247–262.
- Panicker, R., Priya, R.S., 2020. Paradigms of street food vending in sustainable development—a way forward in Indian context. *Cities Health* 1–6.
- Pendleton, W., Crush, J., Nickanor, N., 2014. Migrant Windhoek: rural-urban migration and food security in Namibia. *Urban Forum.* 25 (2). Springer Netherlands, pp. 191–205.
- Raaijmakers, I., Snoek, H., Maziya-Dixon, B., Achterbosch, T., 2018. Drivers of vegetable consumption in Urban Nigeria: food choice motives, knowledge, and self-efficacy. *Sustainability* 10 (4771), 1–14.
- Resnick, D., Sivasubramanian, B., Idiogn, I.C., Ojo, M.A., Likita, T., 2019. The enabling environment for informal food traders in Nigeria's secondary cities. *Urban Forum* 30, 385–405. <https://doi.org/10.1007/s12132-019-09371-7>.
- Rosales-Chavez, J.B., Bruening, M., Ohri-Vachaspati, P., Lee, R.E., Jehn, M., 2021. Street food stand availability, density, and distribution across income levels in Mexico City. *Int. J. Environ. Res. Public Health* 18 (8), 3953.
- Schatzki, T., 2016. Practice theory as flat ontology. In: Spaargaren, G., Weenink, D., Lamers, M. (Eds.), *Practice Theory and Research: Exploring the Relevance for Social Change*. Abingdon, UK, Routledge.
- Simopoulos, A.P., Bhat, R.V., 2000. Street foods. *World Rev. Nutr. Diet.* 86, 100–122.
- Southerton, D., 2020. Time, Consumption and the Coordination of Everyday Life, Consumption and Public Life. https://doi.org/10.1057/978-1-349-60117-2_3.
- Spaargaren, G., Van Vliet, B., 2000. Lifestyles, consumption and the environment: the ecological modernization of domestic consumption. *Environ. Polit.* 9 (1), 50–76. <https://doi.org/10.1080/09644010008414512>.
- Steyn, N.P., Mchiza, Z., Hill, J., Davids, Y.D., Venter, I., Hinrichsen, E., Opperman, M., Rumbelow, J., Jacobs, P., 2014. Nutritional contribution of street foods to the diet of people in developing countries: a systematic review. *Public Health Nutr.* 17 (6), 1363–1374.
- Stutter, N., 2017. *The Social Life of Street Food: Exploring the Social Sustainability of Street Food in Hanoi, Vietnam*. Cardiff University Doctoral dissertation.
- Swai, O.A., 2019. Architectural dynamics of street food-vending activities in Dar es Salaam city centre, Tanzania. *Urban Des. Int.* 24, 129–141.
- Tawodzera, G., 2019. The nature and operations of informal food vendors in Cape Town. *Urban Forum* 30, 443–459. <https://doi.org/10.1007/s12132-019-09370-8>.
- Thornton, L.E., Lamb, K.E., Ball, K., 2013. Employment status, residential and workplace food environments: associations with women's eating behaviours. *Health Place* 24, 80–89.
- United Nations Development Programme, Human Development Report U.N.D.P., 2004. www.hdr.undp.org.
- Wegerif, M.C.A., 2020. "Informal" food traders and food security: experiences from the Covid-19 response in South Africa. *Food Sec.* <https://doi.org/10.1007/s12571-020-01078-z>.
- Wertheim-Heck, S.C., Raneri, J.E., 2019. A cross-disciplinary mixed-method approach to understand how food retail environment transformations influence food choice and intake among the urban poor: experiences from Vietnam. *Appetite* 142, 104370.
- Zukin, S., 1998. Urban lifestyles: diversity and standardisation in spaces of consumption. *Urban Stud.* 35 (5–6), 825–839. <https://doi.org/10.1080/0042098984574>.