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Nutritional, economic, social, and governance implications of traditional food markets for vulnerable populations in sub-Saharan Africa: a systematic narrative review

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Traditional food markets in sub-Saharan Africa (SSA) are pivotal urban spaces, especially for vulnerable populations. These markets are vibrant hubs for commerce, cultural exchange, and social interaction, yet they face challenges such as food safety issues, inadequate infrastructure, and regulation that is a complex mix of informal mechanisms in need of a balanced degree of formalization. Rapid urbanization in SSA and the vulnerabilities of informal settlements underline their enduring importance. The COVID-19 pandemic further highlighted their crucial role in promoting food access, supporting local economies, and preserving social connections during crises. However, a comprehensive understanding of their multifaceted impact on urban life remains limited. This study provides a systematic narrative literature review with the aims of mapping the existing literature and evaluating their complex impact on vulnerable communities. The review employed a systematic search strategy, encompassing research studies and gray literature. It highlights the geographic distribution of studies across SSA, with a concentration in East and Southern Africa. Nutrition is the most explored theme, followed by governance, with economics and social aspects relatively under examined. Traditional food markets are vital sources of affordable food for the urban poor and serve as pillars of economic mobility, providing livelihoods and employment opportunities, especially for women, and act as hubs for diverse groups to interact. Market governance is complex, often marked by policy misalignments due to insufficient collaboration among stakeholders. Policy initiatives to support traditional food markets in SSA should focus on formalization and context-aware regulations to enhance efficiency and vendor security, investment in market-related infrastructure, and nutrition-focused policies and economic support for vendors. Further research is needed to bridge thematic and regional gaps, and to inform evidence-based policy measures to support these vital urban institutions.

KEYWORDS

traditional food markets, informal vendors, urban food systems, informal economy, sub-Saharan Africa research studies

1 Introduction

Traditional food markets have endured as a cornerstone of urban life in sub-Saharan Africa (SSA), despite a surge in the formal food retail sector and supermarket presence (Haggbblade et al., 2016). These markets are vibrant food system nodes of commerce, cultural exchange, and social dynamics, but they also face a myriad of challenges, such as food safety (Leahy et al., 2022), inadequate infrastructure (Parikh et al., 2022), social inequality (Young, 2021), and informal regulatory mechanisms (Davies et al., 2022). Traditional food markets are particularly important to understand given the multidimensional roles they play in the wellbeing of many SSA urban residents living in poverty who are vulnerable to food insecurity and malnutrition in all its forms from wasting, undernutrition to obesity (Tacoli, 2017). The markets are a significant reflection of the informal economy within SSA, offering a wide range of economic activities and employment opportunities, while operating outside formal regulatory frameworks. Importantly, these markets are crucial for food and nutrition security as well, offering access to a diversity of affordable foods, essential for the dietary needs and overall health of urban populations.

Africa, as a whole, is experiencing a rapid surge in urbanization that presents challenges related to food security and nutritional wellbeing (Riley and Crush, 2022), as well as informal settlements vulnerable to the impacts of climate change (Sverdlík, 2011). The value of traditional food markets in SSA was underscored during the COVID-19 pandemic when they served as lifelines, providing vital access to food and information about food availability for urban residents, supporting vendor livelihoods and local economies, and sustaining social connections amid widespread disruptions and restrictions (FAO, 2022). Despite the central roles played by traditional food markets in local economies and communities, a comprehensive understanding of their connections with urban life remains largely unexplored.

This paper narrows its focus to SSA, a region where the dynamics of informal food markets remain largely underexplored, presenting a significant gap in our understanding of food systems. Existing research often isolates aspects like food security, economic livelihoods, and governance, lacking a holistic view. Key gaps include the nutritional impact of these markets on vulnerable populations, their overall economic contributions to urban economies, and the social dynamics that foster community cohesion. Countries within SSA, such as South Africa, show a wide diversity in market types and levels of formality, whereas other countries have less variety in market structures and little research. Given the critical role these markets play in urban life, understanding their operations within the unique food environments of SSA is essential.

Previous research in this area has focused primarily on individual aspects of these markets, such as food security and economic livelihoods, without providing a holistic view of the multiple roles these markets play in urban ecosystems. Furthermore, studies have often looked at these issues in isolation, failing to consider the interconnected nature of the challenges and opportunities presented by traditional markets. This paper aims to fill this gap through a systematic narrative literature review that

considers the multidimensional roles and challenges of traditional markets in a cohesive context.

Addressing the many challenges facing traditional food markets requires evidence-based interventions and policies attuned to context and the unique needs of vulnerable populations. Therefore, this review adopts a two-fold objective: firstly, to map the existing literature, gauging the extent and character of the research in both over and underexplored thematic areas and regions; and secondly, to holistically assess the interrelated complexities of traditional food markets' links to urban poor communities. The resulting analysis aims to provide a more comprehensive understanding of the implications of traditional markets for the lives of vulnerable populations in SSA, highlight key areas for further research, and inform policymakers' decisions.

2 Methods

While a systematic review is the gold standard, given the broad scope of the research question and the resources available, a formal systematic review was not feasible. This paper adopted a systematic narrative review approach to synthesize and present the findings on traditional food markets following a rigorous and structured method (Turnbull et al., 2023). A systematic review follows a comprehensive and reproducible methodology, including a systematic search strategy, explicit inclusion and exclusion criteria, and a synthesis of findings. Conversely, a systematic narrative review, while still structured and systematic, focuses on a narrative synthesis of the findings. This approach allows for the inclusion of a broader range of study types and provides a descriptive analysis that captures the nuances and complexities of the topic.

2.1 Literature searches

Based on the research question, the review identified relevant search terms related to demographic groups of interest and thematic keywords, including nutrition, social, economic and governance. The review includes several central terms that needed to be defined. While there is variation in definitions of SSA, this review relied on the UN Development Programme's classification of 46 African countries that lie at or below the Sahara Desert (About Africa UNDP in Africa, 2020). A "traditional food market" refers to locally operated establishments within the informal food economy that offer a variety of food and non-food items, provide informal employment opportunities, and are characterized by their personalized service, negotiable pricing, and significant cultural and social roles. They are also referred to in the literature as "informal markets" or "open-air markets." According to the UN International Labor Organization, "informal economy" refers to economic activities that are, in law or in practice, not covered or insufficiently covered by formal arrangements (International Labour Organization, 2021). The papers identified for this review did not always use or define "informal economy" but in the results and discussion sections, we have been guided by the UN definition. As the definition of "urban" varies by locality, the term "urban areas" encompasses low-income neighborhoods, peri-urban

informal settlements, and slums. “Vulnerable population” refers to individuals or households facing challenges related to their welfare, including falling into poverty or food insecurity, resulting from a mix of economic, environmental, and/or social factors. The literature generally includes in this group those living in poverty, as well as people living with disabilities, ethnic minorities, women, children, adolescents, and the elderly (Dercon, 2001; Capaldo et al., 2010). Searches related to nutrition were broad, including dietary habits, nutritional outcomes, food safety, and food security. For this review, “the urban poor” are defined as either residents of low-income urban areas or households living below the global poverty line (Jolliffe et al., 2022).

The resulting six search strings that were used for the literature searches are outlined in Appendix 1. The search strings were inputted one at a time into Google Scholar to gather existing literature with each string producing many results. Searches were conducted in March–April 2023. Given the resource constraints for this review, the abstracts of only the first 100 search results from each search string, sorted by relevance, were considered for initial inclusion. This follows an established method used in other reviews (Aberman et al., 2022; Wallace et al., 2022). The resulting citations were imported into Covidence for abstract and title screening, followed by full-text reading and data extraction. A single researcher conducted the primary screening and data extraction, regularly conferring with a second researcher to ensure publications met the established inclusion criteria. Google Scholar’s broad indexing spans multiple disciplines and sources, from peer-reviewed papers to theses, books, and conference papers, offering a unique, albeit sometimes less precise, repository of literature. The choice to use Google Scholar was driven by constraints on accessing subscription-based databases and the intention to cast a wide net in the literature search, ensuring a broad range of relevant studies. While there is no way in Google Scholar to restrict searches to peer reviewed publications, the results were screened for research studies (including known peer reviewed journals, other journals where the peer review process was unknown, and graduate dissertations) and gray literature publications (including NGO reports, factsheets and commentaries).

In addition to Google Scholar, the review included searches of websites of several organizations (e.g., the Global Alliance for Improved Nutrition, the Food and Agriculture Organization, the International Fund for Agricultural Development, the World Food Programme, the International Food Policy Research Institute, the Alliance for a Green Revolution in Africa, and the World Bank) for relevant reports, briefs, and non-academic publications. The search string used for these searches was the initial segment of the Google Scholar search strings: (“informal markets” OR “traditional markets” OR “open-air markets”) AND (“Africa”) AND (“urban” OR “cities”). The team followed a snowballing approach in adding additional relevant literature by reviewing references in key publications.

2.2 Inclusion and exclusion criteria

The team developed and followed the inclusion and exclusion criteria detailed in Table 1. The search was limited to literature

TABLE 1 Inclusion and exclusion criteria.

	Inclusion criteria	Exclusion criteria
Publication year	Published between 2015 and 2023	Published before 2015
Publication language	Published in English	Non-English publications
Publication types	Research studies, gray literature	
Publication geography	Urban locations in sub-Saharan Africa	
Target groups	Market vendors, consumers (including women, youth, and other vulnerable populations)	Itinerant street vendors
Themes	Nutritional, social, economic and governance implications of traditional food markets	Studies focused solely on food value chains and wholesale markets

published between January 2015 and April 2023, as this period observed a shift in the broader food systems literature. All publication types were included but limited to those published in English. The geography included in the review were urban locations in SSA. Market vendors and consumers were the focus of the review, while studies exclusively about itinerant street vendors were excluded given their distinct experiences. Papers needed to include themes of nutritional, economic, social, and/or governance implications of traditional food markets. Studies covering only food value chains and wholesale markets were excluded.

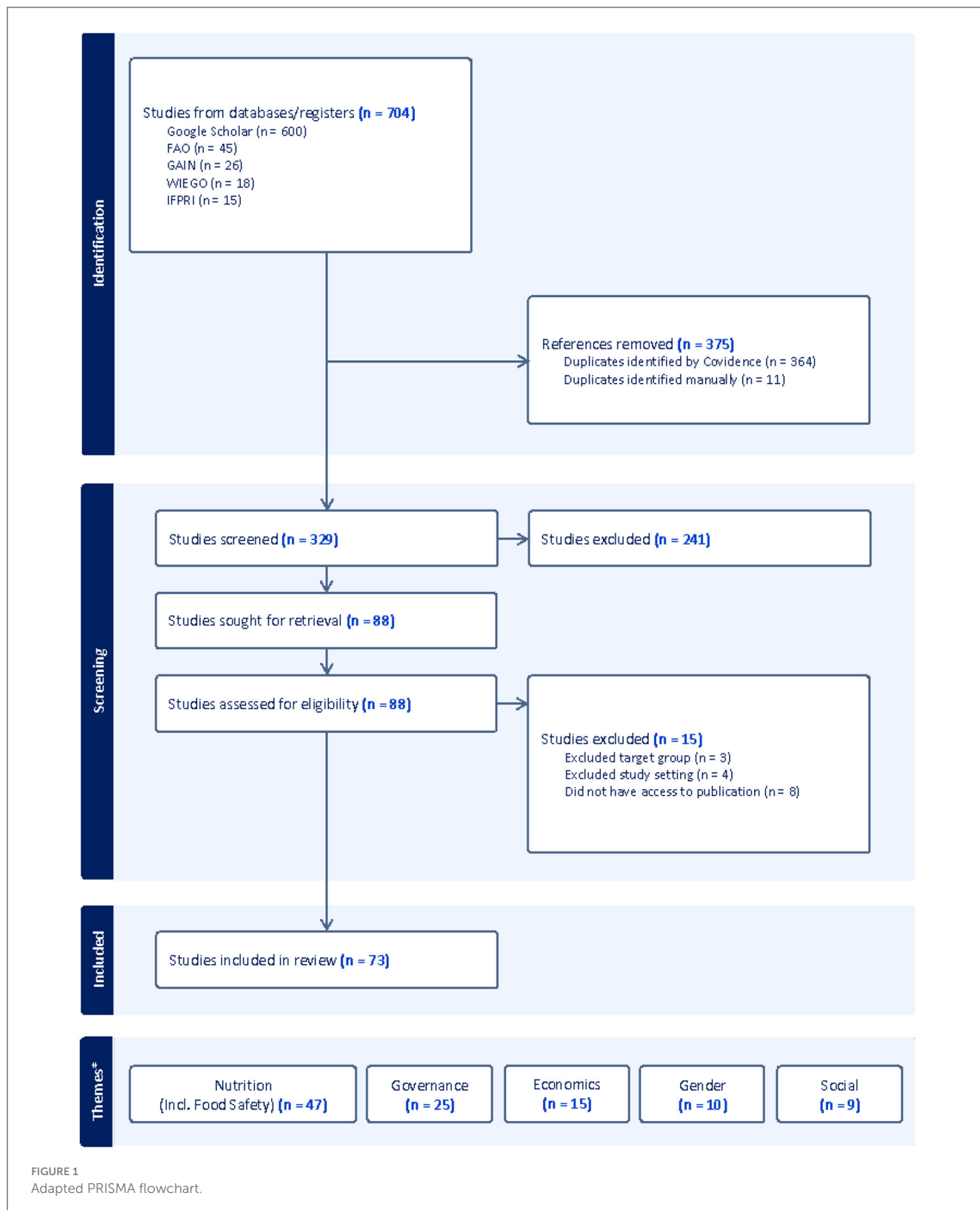
2.3 Data extraction

A comprehensive coding form was developed to extract information from the selected papers. The following information was recorded from each research study and gray literature publication: title, year published, paper type, target group, country(ies) or region(s), primary research question, key theme addressed, sub-theme(s) covered, main findings, and conclusions and implications (policy, programs, research). The data were used to map the existing literature on traditional food markets, examine research trends, and describe the nutritional, economic, social and governance implications of informal markets.

The flowchart of the literature search from Google Scholar, adapted from the PRISMA version and displayed in Figure 1, shows the path from 704 initial papers to the final inclusion of 73 research studies. There were also 24 gray literature publications and 18 additional relevant references uncovered during data extraction, resulting in a total of 115 publications for this review.

3 Results

The searches revealed a considerable body of literature examining the role of traditional food markets in the lives of consumers, including vulnerable populations, in SSA. Across the



four thematic areas, there was a bias toward studies on food safety and quality within the nutrition theme. In the economic realm, there was substantial evidence of how traditional food markets serve as vital livelihood sources, but less exploration of their

economic contributions to local governments. Literature on social relations within these markets was comparatively limited. Within the governance theme, the literature revealed a complex picture, capturing aspects from internal market structures and the politics

of order to external interactions with government officials. Section 4 presents and analyses the thematic trends that signpost specific literature and the substance contained within those themes in more detail.

3.1 Geographic distribution of studies

Studies originated from a broad swath of SSA, with a particular focus on East and Southern Africa (Figure 2). Kenya was the most studied region (13 publications), followed by South Africa (8) and Zambia (8). West Africa, represented by Ghana (7) and Nigeria (6), and Southern Africa, represented by Malawi (5), also contributed significantly to the reviewed literature. There were fewer publications on countries such as Angola, Cameroon, Cote d'Ivoire, Mozambique, and Rwanda, each contributing a single study. No publications were found from other SSA countries.

3.2 Thematic trends

Nutrition emerged as the most common theme in the literature (47 studies) (Figure 3). This included studies on food quality, food security and food safety issues which underscored the critical importance of these issues in traditional food markets. Governance, a key component of market functioning, was the second most common theme (25 studies). There were fewer publications focusing explicitly on the economic impact (15 studies) and social aspects (nine studies) of traditional food markets. In terms of a focus on vulnerable populations, the urban poor were the most common focus. While several studies explored gender as a cross-cutting topic, only a small number of publications focused on gender as the central theme (10 studies). Notably, no studies were found that centered on ethnic minorities, children or people living with disabilities.

3.3 Temporal trends

In the period covering this review (January 2015–April 2023), there was a significant focus on examining the informal food economy's role in the food sourcing strategies of urban poor households, particularly in light of the rise of supermarkets, and the quality and safety of the food offered in traditional markets. There was a decrease in publications in 2020, possibly related to the COVID-19 publication dynamics (Raynaud et al., 2021). From 2021 onward, there was a spike in studies exploring food safety and governance themes (Figure 4).

3.4 Methodological approach

Most studies employed observational methods, focusing on primary data collection from traditional market vendors or consumers. These studies often highlighted multiple themes, but many primarily focused on nutrition and elements of governance.

4 Dynamics of traditional food markets in SSA

In the analysis of research studies and gray literature publications, the review explored the multi-dimensional role of traditional food markets in SSA. They are vital food system hubs that impact not only food intake but also the economic stability, social dynamics, and governance structures within the communities they serve. Through the broad and inclusive narrative review, many insights were gleaned from a rich array of sources that paints a more comprehensive picture of these markets. The results below are organized into four main themes, each looking at a different facet - nutritional, economic, social, and governance implications - highlighting both the challenges they face and the opportunities they present.

4.1 Role in nutrition

Traditional food markets and street vendors play a pivotal role in the food systems of SSA serving as a primary food source for the urban poor (Joubert et al., 2018; Marumo and Mabuza, 2018; Hannah et al., 2022). However, their role should be seen beyond supporting food security, encompassing also “nutrition security,” referring to access to health-promoting food that prevents and treats disease. Primarily catering to the needs of low-to-middle income households, these markets offer competitively priced and conveniently accessible food. Research conducted predominantly in SSA found that the daily energy intake from informal markets in adults ranged from 13% to 50%, and in many cities contributed approximately 50% of daily protein intake (Steyn et al., 2014). Economic access is not the sole determinant of households' market use, as product variety, cultural preferences, and perceived quality are also factors (Hannah et al., 2022).

Traditional food markets provide benefits that accommodate the needs of economically disadvantaged consumers, such as in-person counter service, flexible operating hours, and credit options (Kroll et al., 2019). These benefits starkly contrast with those of modern retailers that, despite having a broader variety of goods and superior safety standards, may be less accessible for low-income individuals due to factors such as higher costs, fewer convenient locations, and shorter hours of operation. The review also showed the disparate nutritional impacts of modern food retailers such as supermarkets, hypermarkets, and fast-food restaurants. Some studies from Namibia and Zambia show these establishments are associated with increased consumption of unhealthy food (sugar, sweets, oils, fats), demonstrating a considerable shift in dietary behaviors when these modern retail outlets become available (Khonje and Qaim, 2019; Kazembe et al., 2022). However, the review also showed increased supermarket access linked to essential protein consumption, such as meat, fish and dairy products, and the use of some traditional food markets and kiosks were also linked to high consumption of unhealthy food groups (Khonje and Qaim, 2019).

Many studies noted that food safety and quality were areas of concern in traditional food markets (Roessel and Grace, 2014; Leahy et al., 2022; Nordhagen et al., 2022; Wallace et al., 2022).

Number of Publications by Country (2015-2023)

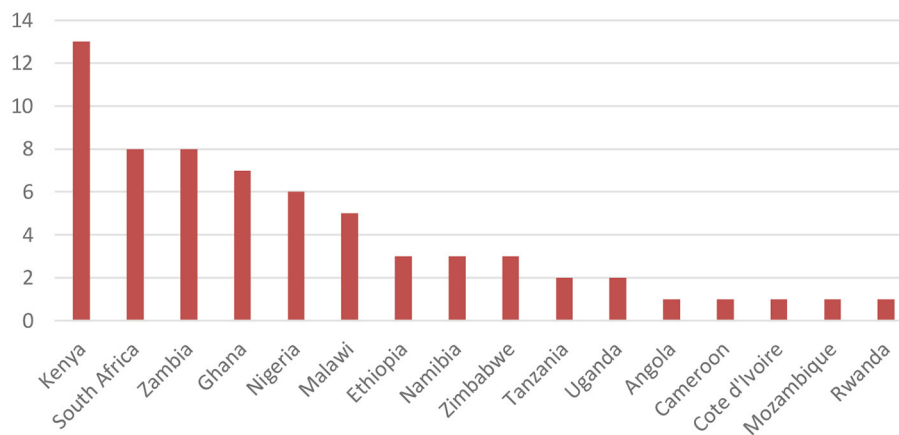


FIGURE 2
Number of research studies by country.

Foodborne illnesses were found to pose a significant and growing threat to the health of individuals, particularly in LMICs, where gastro-intestinal diseases are among the top five causes of illness (Roesel and Grace, 2014). Foods that posed the greatest risk were also the ones that can provide the most nutrients - animal products such as meat and fish, and fresh fruits and vegetables that can be contaminated with animal or human waste. The review found knowledge of food safety among vendors and consumers to be inconsistent and often inadequate, with some vendors uninformed about critical aspects such as the importance of water quality and cleanliness (Nordhagen, 2022; Parikh et al., 2022). There were also infrastructure challenges, such as the absence of clean water, sanitary facilities, and waste disposal provisions. Often, food safety policies and regulatory measures were not comprehensive or stringent enough, particularly for the informal food markets (Lazaro et al., 2019; Wallace et al., 2022). Female vendors could be especially affected, with the lack of gender equality in accessing sanitary facilities leading to productivity issues, poor health outcomes, and a breach of their rights (Grace, 2015; Chilanga and Riley, 2022).

The review found a complex picture of the nature of food safety in these markets. There is a clear discrepancy between the knowledge and practices of food safety, with vendors often possessing adequate knowledge but failing to implement it in their practices. Food safety evaluation was often based on visual cues or trusted relationships between vendors and consumers, rather than standardized guidelines (Nordhagen et al., 2022). Both vendors and consumers predominantly placed the responsibility of ensuring food safety on the government. However, studies emphasized that interventions should not only focus on enhancing knowledge but also on raising motivation and providing behavioral nudges to promote better food safety practices (Nordhagen, 2022; Wallace et al., 2022).

4.2 Economics

The review highlighted the crucial economic functions of traditional food markets. These markets are not just commercial establishments but serve as pillars of economic mobility for the urban poor, providing livelihoods and employment opportunities (Chukwuemeka et al., 2017). While they provide accessible and affordable food choices for low-income households, they also stand as a significant source of livelihood for many in the backdrop of high unemployment rates. The total number of people who work in traditional markets or as street vendors is difficult to determine given their informal status and itinerant nature. An older figure from 2014 states that in SSA, trade accounts for 43% of all informal non-agricultural employment and is even more important for women, employing 51% of all female informal workers outside agriculture (Vanek et al., 2014). In major cities in Mali, Benin, and Togo, women represent more than 60% of all informal vendors (Roever and Skinner, 2016). Beyond employment, traditional food markets play a central role in the food distribution network, acting as a distribution hub connecting farmers and distributing food to street vendors and consumers (Blekking et al., 2022).

Markets are significant arenas where women, despite challenging circumstances, make vital contributions to their households' income and can weave strong social networks across cultural and generational boundaries. Female vendors serve as vital players in the informal economy. Their involvement significantly contributes to poverty reduction, notwithstanding challenges such as limited access to capital and finance, inadequate business management knowledge, and unsuitable operating environments.

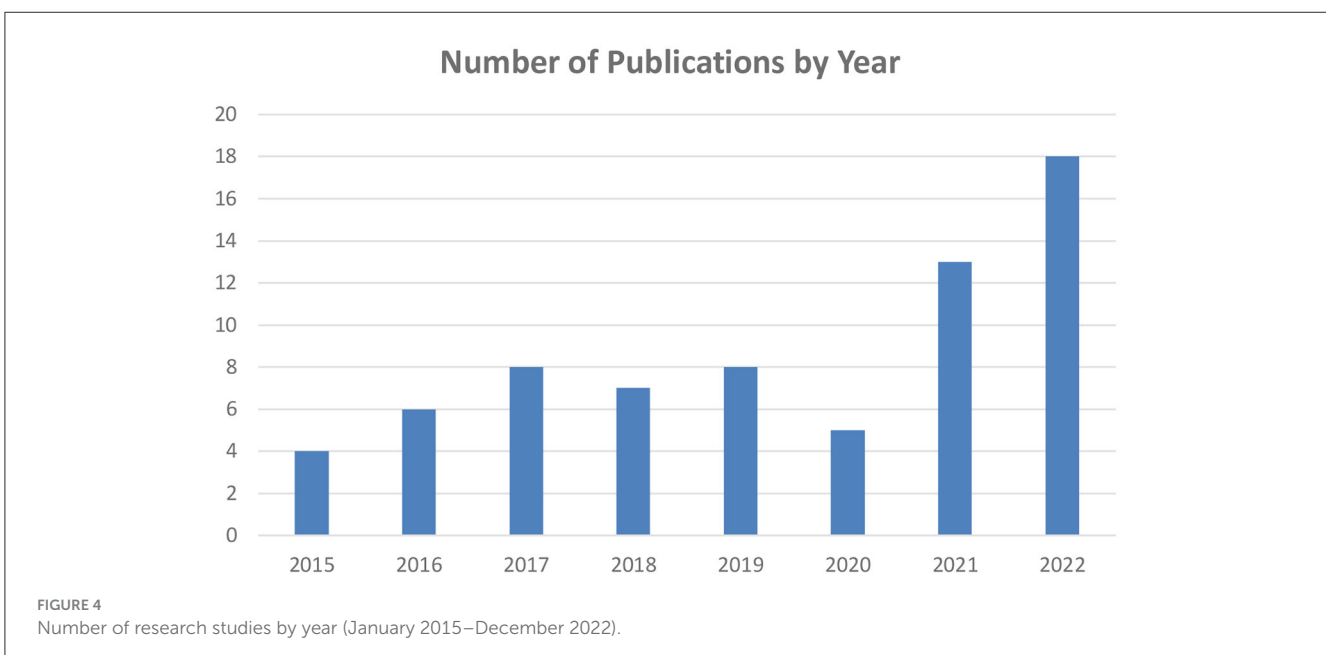
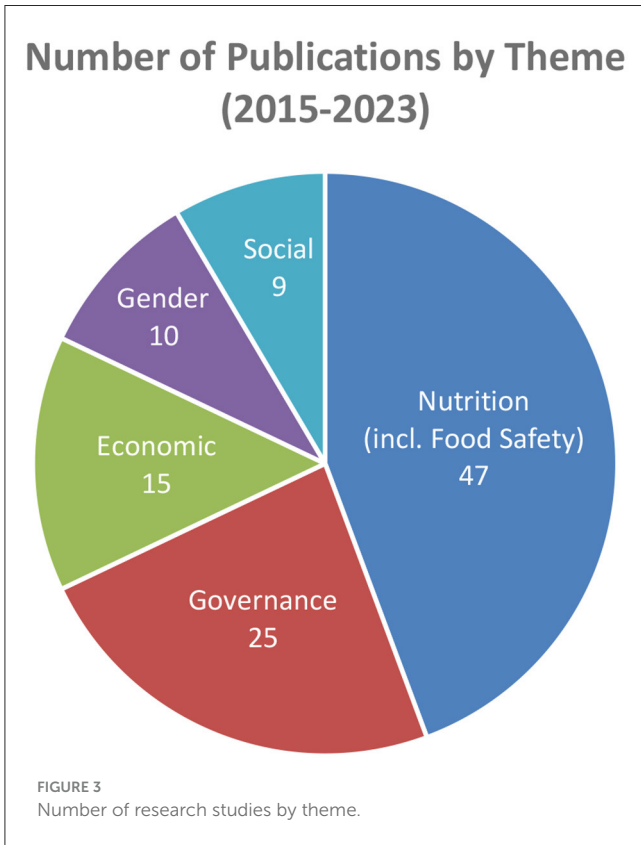
It is important to recognize that while traditional food markets are categorized within the informal economy due to their operation outside of full regulatory and formal business structures, they nonetheless engage with formal economic elements. For example, market vendors may pay fees for space rental, security, and waste

management to market associations or local governments, which can be considered a form of quasi-formal engagement with the state. This hybrid nature of market operations reflects the reality of many informal economies in sub-Saharan Africa, where a strict dichotomy between formal and informal can often be misleading.

Despite their significant economic and social contributions, these markets often operate in precarious conditions. They face

exclusionary practices such as violent evictions, harassment, gender-biased compliance regulations, and a lack of essential facilities such as sanitation and clean water (Smit, 2016; Resnick, 2017; Skinner, 2019). Moreover, the aggressive stance of municipal enforcement authorities often adds to their difficulties (Sowatey et al., 2018). Researchers noted the need for measures that enhance the infrastructure supporting these markets, simplifying market levies, and promoting value addition (Sowatey et al., 2018; Wegerif and Kissoly, 2022). From a government perspective, traditional food markets generate considerable revenue. Vendors pay an array of fees and levies to operate, which varies across different markets, cities, and countries. The structure and amount of these fees and levies can differ greatly across regions, reflecting local economic conditions, market size, and administrative regulations. However, research on vendors in Mozambique, Zimbabwe and Ghana found consistent views that taxes and levies were only of benefit to the municipality and they perceived little direct benefit to their businesses (Rogerson, 2016, 2017; Sowatey et al., 2018).

The impact of the COVID-19 pandemic on these markets was also notable, as vendors reported a significant decrease in sales and footfall (Bamu and Marchiori, 2020). Lockdown measures and fear of shopping in crowded places resulted in loss of sales, inhibiting vendors from earning a living. Economic support programs often overlooked these vendors, exacerbating their struggles (Munishi et al., 2021). Women, who play a significant role in street vending and food entrepreneurship were disproportionately affected (Doss et al., 2020). The impact of the pandemic on women, who also often handle food preparation, has potential implications on household nutrition, particularly as household incomes were dwindling. After the pandemic, many markets have exhibited resilience, such as in Kenya and Nigeria, with the adoption of safety measures and the use of digital tools such as mobile phones to streamline payments and maintain social connections (Global Alliance for Improved Nutrition, 2021).



4.3 Social aspects

Relatively fewer studies were found that commented on the social implications of traditional food markets. Of the papers identified, traditional food markets were found to be vibrant places that fostered social interaction, cohesion, solidarity, and inclusion. Markets function as places of social interaction, a finding underscored by the relationships cultivated between vendors and consumers (Chukwuemeka et al., 2017). Trust is a pivotal element in these places, and it has implications beyond commercial transactions, particularly in matters of food safety. Consumers in traditional food markets rely heavily on their personal relationships with vendors, trusting them to provide safe and quality foods, thus reducing consumers' uncertainty about product safety and quality (Nordhagen et al., 2022).

Markets in Onitsha, Nigeria exemplify the social role of traditional food markets for vulnerable populations. Chukwuemeka et al. (2017) documented how they promote social cohesion, acting as neutral grounds that help to mitigate inter-ethnic tensions within the city. The markets were found to be ingrained in the local Igbo culture and the system of rotating market days is an integral part of the society. Traditional food markets foster cooperative actions where vendors pool resources for collective benefit. Beyond their economic function, these markets are also public places for leisure and social interaction, integral to the daily life of the community (Chukwuemeka et al., 2017). A study from Ghana highlighted how, for women in particular, the benefits of informal market activities far exceeded material or financial gain. Women trading in the market spoke of it as a source of "joy" and "emotional relief," seeing their roles as a vital part of local and national growth and development (Kennedy, 2016). A study from Tanzania found that market members supported each other through associations, but also through social networks. Members regularly contributed to help others with life events such as funerals and weddings. They also shared important information to help their businesses and aligned their resources, such as sharing transport when buying stock (Wegerif and Kissoly, 2022). Sowatey et al. (2018) found that markets in Ghana enabled female vendors to forge strong relationships that span ethnic and generational divides and saw fellow vendors as allies rather than competitors (Sowatey et al., 2018).

Technology also played a positive role, particularly in facilitating connections and operations between vendors, customers, and suppliers. A study among young entrepreneurs in Zimbabwe found that mobile phones played a vital role in mobile vending, not just for their economic benefits but also for their ability to enhance social connections (Tsarwe and Mare, 2021). Tsarwe and Mare (2021) found that they contributed to the economic success of these enterprises by enabling easier transactions and payments with suppliers, eliminating the need for physical travel, and thus saving vendors valuable time and resources. Furthermore, they facilitated the maintenance of relationships with regular customers, which may lead to increased business. This constant connectivity also fostered a sense of community amongst vendors, reinforcing an ethos of reciprocity, or mutual assistance, within this group. Therefore, there is some evidence that mobile phones are helping to build an architecture of collective sociality, bridging social

connections, and strengthening the social resilience of the vending community.

Despite these positive outcomes, the review also uncovered challenges that arose from the social dynamics within the markets. For example, vendors often face insecurity and vulnerability, pointing to the need for improvements in safety measures. In some cases, city authorities perceived the informal economy as a nuisance, leading to a lack of institutional support and a culture of fear among vendors. Social hierarchies in traditional food markets are deeply rooted in factors such as ownership structure, vending locations, and employment arrangements. These hierarchies are closely intertwined with disparities in wealth, income, and influence within market ecosystems. Vendors' perspectives on the direction of market development and which interests should be prioritized often align with these hierarchies and can create combative social dynamics (Young, 2021).

4.4 Governance

The findings from the literature underscore the substantial role of informal food economies in sustaining the livelihoods of vendors and bolstering food security among low-income consumers. Across markets, cities and countries, there is variation in market governance, involving a wide range of actors and stakeholders. However, they typically follow a multi-level governance structure, with vendor or market associations and municipal authorities sharing responsibilities (AGRA, 2020). Market associations take charge of selling space, infrastructure, maintenance, security, and regulation, while local governments often play a limited role in fee collection, lacking the capacity for planning and infrastructure provision (Wegerif and Kissoly, 2022). The review found that the complexity and lack of clarity in the governance of these markets often resulted in policy misalignments and inconsistencies, which tended to undermine the essential functions that the markets provide. The attempts by authorities to upgrade or relocate these markets could inadvertently lead to significant resistance, primarily when such efforts do not resonate with the needs and expectations of the vendors and consumers (Blekkings et al., 2017; Kazembe et al., 2019).

Although these markets form a lifeline for urban food security by providing affordable food and employment opportunities for the urban poor, some studies suggested that their potential is not adequately harnessed due to the lack of substantial collaboration between the relevant stakeholders and policymakers (Skinner, 2019). This is evident in the somewhat fragmented interventions aimed at enhancing the informal food sector, such as relocation efforts, training programs and legislation (Giroux et al., 2021).

The dynamics of market governance also emerged as an instrumental factor shaping the social lives of vulnerable populations. As demonstrated in the case of public markets in Dar es Salaam, Tanzania, informal vendors wield considerable influence over the physical and administrative structure of these places. This influence ranged from direct occupation of land to playing critical roles in the establishment, development, and maintenance of markets, often in ways not explicitly recognized in official urban plans (Wegerif and Kissoly, 2022). The establishment of market

committees in some larger markets, showcased the democratic underpinnings of market governance, where vendors operated within organized commodity groups and contributed to the welfare and discipline of their trading community (Davies et al., 2022; Wegerif and Kissoly, 2022).

On the governance side, informal trade is often impacted by partisan politics, especially in the allocation of market stalls and the regulation of street vendors (Resnick, 2019). However, organizations of informal workers have been increasingly recognized for their contribution to the economy, particularly during the COVID-19 pandemic (Resnick et al., 2020). Informal food vendors were acknowledged as essential service providers, and groups like StreetNet International have pushed for the recognition of their contribution to urban Africa's labor and food systems (Bamu and Marchiori, 2020). For traditional markets, such as Ghana's Makola Market and the Ga East Traders Unions, a gradual and committed approach to organization has proven successful, with trade union membership giving them greater recognition and negotiating power [Women in Informal Employment Globalizing and Organizing (WIEGO), 2015]. Meanwhile, market evictions and demolitions have had negative nutritional, economic, and social effects on vendors, particularly women who are the majority in these markets.

The reviewed literature also revealed a critical gap as policies aiming to address urban food security often disregarded the informal food economy. This has led to an urgent call for more inclusive policy planning and initiatives as well as improved working conditions for street vendors. Examining specific locations, such as Onitsha, Nigeria, offers insights into the role of traditional food markets as a hub of social cohesion while providing economic opportunities and food access (Chukwuemeka et al., 2017). However, these markets also face numerous challenges, such as state-led redevelopment, taxes, fees, and insufficient infrastructure, further exacerbated by governance practices that often involve benign neglect or active destruction. Moreover, within these markets, power dynamics and economic hierarchies can reinforce existing structures, but activism among vendors that challenges urban governance has been observed. For example, state-led redevelopment of market infrastructure in Ghana has led vendors to take unconventional actions such as legal action and overtaking public space to protect their livelihood (Asante, 2022).

Lastly, a key insight from our review is the literature's call for a deeper exploration into the governance issues affecting food markets, with a particular focus on the challenges encountered by vendors in informal settings. It is important to note, however, that while many SSA markets exhibit characteristics of the informal economy, the degree of formality can vary. Not all food markets are classified as informal. Some may have formal elements, such as registration with local authorities or adherence to certain regulations, yet still face governance challenges common to informal systems. Improved stakeholder involvement and resource allocation for sanitation, water, and capacity building are recommended (Carrara et al., 2021). There is an emphasis on adopting a systems approach that involves multiple stakeholders at various governance levels. There is also a knowledge gap as it relates to the governing structures within traditional markets, how they operate in practice day to day, and their interactions with local authorities. This calls for additional research to understand the

power dynamics within informal food systems and the interaction between state plans and people's actions, thereby ensuring more effective, inclusive, and sustainable governance practices.

5 Discussion

The central role of traditional food markets in SSA in feeding the urban poor cannot be overstated. The findings of this review show that these markets are primary sources of affordable, staple, and nutritious foods. However, this potential nutritional benefit can be offset by concerns over food safety which can pose significant health risks to consumers. The evidence suggests a pressing need for policy and infrastructure interventions that can enhance the safety, quality, and diversity of the food sold. These markets also provide essential livelihoods, particularly for women, making substantial contributions to household income and poverty reduction. However, this important economic role is often overshadowed by challenges such as the exclusion of these markets from formal urban planning processes, the aggressive stance of municipal enforcement authorities, and the lack of sufficient infrastructure. The literature suggests the need for policies and interventions that address these challenges, thereby enhancing the potential of traditional markets to contribute to the local economy and poverty reduction efforts.

Beyond their economic and nutritional roles, traditional food markets are also vital social spaces. They serve as sites of social interaction, solidarity, and social cohesion. They can bring together diverse groups of people and ideologies, thereby contributing to the social fabric of urban areas. The governance of traditional markets is complex and often riddled with regulatory miscoordination, especially concerning food safety standards. This calls for more inclusive policy planning, infrastructure upgrades, improved working conditions for market vendors, and greater stakeholder involvement in governance processes.

The review also brought to light the gendered dimensions of vending in traditional food markets. Female vendors, who make up the majority of vendors, face particular challenges that can affect both their health and their ability to operate their businesses effectively. This calls for more gender-sensitive policy and planning mechanisms that consider women's specific needs and challenges and promotes their full and active participation in urban food systems and governance processes.

Considering these findings, future research should continue to delve deeper into the complex realities and implications of traditional food markets in SSA. There is a need for more comprehensive studies that integrate various dimensions – nutritional, economic, social, and governance – of these markets, as this review does. In particular, there is a need for high-quality studies that develop better metrics to capture food safety practices and perspectives accurately. Recognizing the global diversity of food markets and the potential value of comparative studies, future research that explores the similarities and differences between traditional food markets in SSA and those in other regions could offer valuable insights into the universal and unique aspects of market operations, governance structures, and their contributions to economic, social and nutritional outcomes. Further comparisons can be done with respect to the impact of city size on these markets'

roles in the food distribution network. Preliminary insights suggest that this could be a factor of considerable influence, with small to medium-sized cities potentially having a greater dependence on traditional markets for food distribution compared to larger cities, where more diverse and modernized distribution systems may be in place. Future studies could provide valuable information for policymakers and urban planners working toward solutions tailored to the specific needs of cities of different scales. More research will enable a holistic understanding of these markets and inform more effective interventions. Policymakers and other stakeholders need to recognize the critical role of traditional markets in promoting food access, diversity, and security for vulnerable populations, and provide greater institutional support to harness their potential.

5.1 Policy insights

The policy landscape surrounding traditional food markets in SSA carries significant implications for their operation and influence. The review underscores the importance of policy focus on the formalization and regulation of these markets. Formalization, when thoughtfully implemented, can lead to enhanced market efficiency and security for vendors. However, policy initiatives need to consider the unique challenges and opportunities that lie within the context of traditional food markets, avoiding a one-size-fits-all approach. Infrastructure emerges as a pivotal policy focus area. Investment in market-related infrastructure, from storage facilities to sanitation services, can not only improve market operations but also serve as a catalyst for socio-economic development. Such investment should be made with an understanding of the context and nature of traditional food markets, with an aim to enhance accessibility and functionality for both vendors and consumers. Engaging market authorities and associations will be important in developing these plans.

Nutrition policy is another critical aspect where traditional food markets play a significant role. Given the immense contribution these markets make toward food provision, especially for the urban poor, policy measures could aim to facilitate and promote the supply of diverse and nutritious foods. The potential of these markets to serve as conduits for improving nutritional outcomes should be recognized and leveraged through policy initiatives, such as training and education programs for vendors on food safety practices (Grace, 2015).

Economic policies that enhance the livelihoods of market vendors can create a positive ripple effect on the wider urban economy. Provisions for access to microcredit, insurance, or other forms of financial services can enable market vendors to run their businesses more effectively and contribute to economic stability. Effective governance within traditional food markets requires a participatory approach. Policy measures should seek to involve market vendors and consumers in decision-making processes that affect their livelihoods and community. Enabling platforms where their voices can be heard and taken into consideration can lead to more sustainable and beneficial market practices.

In conclusion, policy initiatives must recognize the multifaceted nature of traditional markets and consider their social, economic, and nutritional impacts. Tailoring policy

actions to these different dimensions can help to harness the full potential of traditional markets in fostering resilient and inclusive urban environments in SSA. Progressive policies should also address the bias which sees informal systems as an aberration of “normal” formal food systems and focus on supporting the informal sector in a way that caters to the needs of the urban poor (Riley, 2021).

5.2 Strengths and limitations

While this literature review was broad and inclusive, it did not employ a formal systematic review approach. Given the objective of understanding the depth and breadth of the literature through a transparent and credible method, a systematic narrative review approach seemed more appropriate. The review did use rigorous methods for the literature searches and followed the adapted PRISMA guidance on scoping reviews to understand the characteristics of the studies. The review relied on the use of specific search terms, which inevitably introduces a degree of selection bias. Some relevant articles may not have been uncovered if different terms than those identified in our search strings were used. The process of data extraction and synthesis was conducted primarily by a single researcher, with periodic consultation with a second researcher. Although measures were taken to ensure consistency and accuracy, the possibility of subjective interpretation and selection cannot be eliminated. Due to resource constraints, the review also had to limit screening and data extraction to the first 100 papers found in each of the search results. To expand the scope, the team searched gray literature sources, as some of the exploration of traditional markets falls outside of peer reviewed journals. The literature search was conducted in English only, which will have inadvertently excluded studies published in local languages. This restriction may have resulted in a lack of representation of some countries' perspectives in the review. The exclusion of studies that focused solely on food value chains and wholesale markets may have excluded pertinent insights into the broader food system that directly or indirectly impact traditional markets. Similarly, the exclusion of itinerant street vendors may have overlooked a group that operates within the broader informal market ecosystem. The abundance of studies from Kenya may have biased the insights about traditional food markets in SSA broadly. This underscores the point that local context needs to be considered, first and foremost, in understanding the dynamics of these institutions. Finally, there were also considerable variations in the studies included in the review, with a multitude of themes, populations and study designs used across the literature. This made it difficult to identify implications for specific groups or comment on regional differences in the dynamics of traditional food markets but through a careful analysis of the literature, the review did provide a useful snapshot of the evidence for future research projects and to inform policy.

6 Conclusion

This review has highlighted the important role of traditional food markets in SSA in providing affordable and nutritious food

to the urban poor, supporting the economic livelihoods of many, especially women, and offering vibrant spaces to foster social interaction, trust, and inclusion. These markets have great potential to improve the lives of vulnerable populations but face many barriers, including food safety concerns, inadequate infrastructure, gender inequality, and fragmented governance structures. Future research should continue to study the multifaceted implications of traditional markets to inform more effective interventions and place greater focus on underexplored areas such as the social and gender implications. Research is also needed on the role of these markets in supporting other vulnerable populations, such as the elderly, children, ethnic minorities, and those living with disabilities. The research suggests that policymakers should view markets more holistically, rather than a collection of siloed issues, or focusing exclusively on food safety concerns. Policies should be tailored to the different dimensions of these markets and seek to involve vendors and consumers in decision-making processes. Addressing these challenges will go a long way to enhance the contribution of traditional food markets to food security, urban development, and public health in SSA.

Author contributions

BC: Writing – review & editing, Writing – original draft, Methodology, Conceptualization. AT-J: Writing – review & editing, Project administration, Funding acquisition, Conceptualization. BS: Writing – review & editing, Formal analysis, Data curation, Conceptualization.

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Conflict of interest

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

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Appendix

TABLE A1 Search strings for literature searches.

Key theme	Search string	Databases queried	Number of hits
Conditions			
Demographics	("informal markets" OR "traditional markets" OR "open-air markets") AND ("Africa") AND ("urban" OR "cities") AND ("gender" OR "age" OR "women" OR "youth" OR "vulnerable")	Google scholar	11,800
Environment	("informal markets" OR "traditional markets" OR "open-air markets") AND ("Africa") AND ("urban" OR "cities") AND ("food environment" OR "wholesale" OR "supermarket" OR "kiosk")	Google scholar	4,510
Outcomes			
Nutritional	("informal markets" OR "traditional markets" OR "open-air markets") AND ("Africa") AND ("urban" OR "cities") AND ("nutrition" OR "health" OR "food security" OR "diet*")	Google scholar	11,200
Economic	("informal markets" OR "traditional markets" OR "open-air markets") AND ("Africa") AND ("urban" OR "cities") AND ("income" OR "employment" OR "livelihood" OR "revenue")	Google scholar	11,900
Social	("informal markets" OR "traditional markets" OR "open-air markets") AND ("Africa") AND ("urban" OR "cities") AND ("social" OR "network" OR "trust" OR "information")	Google scholar	13,100
Governance	("informal markets" OR "traditional markets" OR "open-air markets") AND ("Africa") AND ("urban" OR "cities") AND ("governance" OR "management" OR "committee" OR "association")	Google scholar	12,800