

African Journal of Tourism and Hospitality Management

ajthm.eanso.org

Volume 3, Issue 1, 2024

Print ISSN: 2790-9603 | Online ISSN: 2790-9611

Title DOI: <https://doi.org/10.37284/2790-9611>



EAST AFRICAN
NATURE &
SCIENCE
ORGANIZATION

Original Article

Effects of the Informal Street Food Vendors' Operations on the Socio-cultural and Economic Wellbeing of Nyeri Town Public

Asborn J. Misiko^{1*} & Rodgers Isaac Kisiang'ani¹

¹ Dedan Kimathi University of Technology, Private Bag-10143, Nyeri, Kenya.

* Author for Correspondence ORCID ID: <https://orcid.org/0000-0002-5154-9322>; Email: juma.asborn@gmail.com

Article DOI: <https://doi.org/10.37284/ajthm.3.1.1778>

Date Published: ABSTRACT

23 February 2024

Keywords:

*Informal Street
Foods,
Vendors,
Streetpreneurs and
Consumers.*

Nyeri town boasts of informal street food vendors found on almost every street, offering products ranging from indigenous to trendy cuisines. During evening hours, the informal street food operators compete for the street space with the town public. The design and the size of the town's major streets have not been reviewed to accommodate the increasing number of informal street food vendors and the growing urban community. This study investigated the effects of the informal street food vendors' location, products, operating time and modus operandi on the Socio-cultural and Economic Wellbeing of the urban community in Nyeri town. The researchers combined the integrated model, neo-Marxist and neo-liberal theories to contextualize the development and growth of informal street foods. Neo-Marxist theory posits that the informal sector expands as urbanization increases, and the Neo-liberal theory –argues that entrepreneurs pursue informal sectors in order to operate outside the official business frameworks to explore the subject of the study. Using the cross-sectional survey design, the study adopted the enumeration and convenience sampling techniques to select vendors and consumers respectively that responded to the questionnaire administered face-to-face. The qualitative data was analysed using the thematic content analysis, and the output was transformed into quantitative data to give percentages and frequencies. The informal street ventures inconvenienced street users, especially during rush hours. The food-related waste and a cocktail of food aromas made the street ambience less attractive. The equipment used on the streets and the unsecured fire points posed a great risk to the public. The study concludes that informal street food ventures provide employment that sustains livelihoods. The informal street businesses facilitate the flow of resources, and promote the mainstream economies like agriculture, retail and food manufacturing, thus contributing to wealth creation in the county. The study recommends benchmarking to explore ways to change the perception that informal street foods are unsafe, unhealthy and the ventures make the street look unattractive. In countries like Thailand in the city of Phuket, informal street foods are conducted in an organized manner.

APA CITATION

Misiko, A. J. & Kisiang'ani, R. I. (2024). Effects of the Informal Street Food Vendors' Operations on the Socio-cultural and Economic Wellbeing of Nyeri Town Public *African Journal of Tourism and Hospitality Management*, 3(1), 30-55. <https://doi.org/10.37284/ajthm.3.1.1778>.

CHICAGO CITATION

Misiko, Asborn J. and Rodgers Isaac Kisiang'ani. 2024. "Effects of the Informal Street Food Vendors' Operations on the Socio-cultural and Economic Wellbeing of Nyeri Town Public". *African Journal of Tourism and Hospitality Management* 3 (1), 30-55. <https://doi.org/10.37284/ajthm.3.1.1778>.

HARVARD CITATION

Misiko, A. J. & Kisiang'ani, R. I. (2024) "Effects of the Informal Street Food Vendors' Operations on the Socio-cultural and Economic Wellbeing of Nyeri Town Public" *African Journal of Tourism and Hospitality Management*, 3(1), pp. 30-55. doi: 10.37284/ajthm.3.1.1778

IEEE CITATION

A. J. Misiko & R. I. Kisiang'ani, "Effects of the Informal Street Food Vendors' Operations on the Socio-cultural and Economic Wellbeing of Nyeri Town Public", AJTHM, vol. 3, no. 1, pp. 30-55, Feb. 2024.

MLA CITATION

Misiko, Asborn J. & Rodgers Isaac Kisiang'ani. "Effects of the Informal Street Food Vendors' Operations on the Socio-cultural and Economic Wellbeing of Nyeri Town Public". *African Journal of Tourism and Hospitality Management*, Vol. 3, no. 1, Feb. 2024, pp. 30-55, doi:10.37284/ajthm.3.1.1778

INTRODUCTION

Informal street food businesses are common elements of many active towns. However, their contribution to local and national development through poverty alleviation, food security and job creation is scantily understood and appreciated (Adhikari, 2017). Informal street foods are basically prepared and sold in streets, urban and market squares (Cardoso et al., 2014). The informal street food ventures provide affordable and convenient alternative food options to busy urban communities (FAO, 2003 & Adhikari, 2017). A considerably diverse world population consume street foods (Abrahale et al., 2019). However, 85% of the studies on street foods focus on food safety while other issues concerning the availability of street foods, vending sites, patterns of purchase and consumption by population are given minimal attention (Abrahale et al., 2019). The businesses intervene to strengthen the food supply chain and to protect the ever-growing urban populations from starvation and unemployment, and also promote social and economic inclusivity, thus promoting social justice. The informal street food ventures are driven by growing urbanization, limited formal employment opportunities, minimal start-up capital, and the need for supplementary income. Informal street food vendors sustain the social fabric that could have, otherwise, been severed had they not stepped in to provide informal alternative food outlets.

Nyeri town boasts of informal street food vendors spread out over almost in every street, offering

products from indigenous to trendy contemporary foods. Most evenings the informal food vendors compete for the street space with the town public. The design and the size of the town's major streets trail the increasing number of informal food vendors and the growing town public.

This study sought to explore the effects of the informal street food vendors' location, products and operating time on the Socio-cultural and Economic Wellbeing of the public of Nyeri town. The study elaborates on different ways to enhance informal street food ventures thus improving their contribution to safe and healthy town life. The authority can use the findings to enhance urban street planning, and town governance and promote economic sustainability. The study recommends policy and strategic actions that can be pursued to optimize the opportunities and productivity in informal street food ventures.

LITERATURE REVIEW

Informal Street Food Vendors' Operations

It's important to contextualize the term "informal sector" before discussing the Informal Street Food Vendors. FAO (2003) defines the "informal sector" as small manufacturing enterprises; small traders and services operating legally or illegally. Many times, the routine practices do not conform to the official provisions of the laws and regulations (Cardoso et al., 2014; FAO, 2011). It's argued that the informal operators have the tendency of disobeying established regulations and laws, hence some operate without requisite licences or permits. The informal sector's

activities include food production, catering, transport, and retail sale of fresh or prepared food (either stationary or itinerant sale of street food). The informal street food businesses attract males and females, thus creating an inclusive economy.

The informal sector's activities are lowly regarded and hence given minimal attention thanks to the long-time-held view that the informal ventures are businesses for the poor people operating in unhygienic sanitation conditions. Consequently, the contribution of the informal venture to socio-cultural and economic development and growth of the society has been given negligible academic and policy attention, hence underestimating their role in national development. The informal sector supports different households and micro-enterprises with diverse purchasing needs (FAO, 2003). The general perception that informal street food ventures are a nuisance because they occupy space meant for other activities is therefore contextually debatable.

The informal street food vendors (streetpreneurs) are driven by the desire to gain employment; generate income and provide alternative food opportunities to the town public (Njaya, 2014; Riet, 2002; Mwangi, 2002; Edeme and Nkalu, 2018). Entrepreneurs take to the street food business because of the low start-up costs, flexible work schedules, quick returns and low barriers to entry (Moussavi & Liguori, 2016). It is argued that the informal street food ventures operated by poor households are the easiest form of self-employment. It requires discipline, creativity and commitment for one to earn money in the streets, given the prevailing global economic difficulties. Currently, no potential alternative revenue stream is neglected. In the 21st century, the sands in the investors' hourglass are shifting; the informal street attracts also eagle-eyed affluent people.

Informal street food eateries support the food supply value chain (Mwangi 2002), right from growing, processing, transportation, retail and consumption. Streetpreneurs purchase ingredients from the farms, markets and processing industries. The vendors use transportation services, thus

contributing actively to the economic growth of a given territory.

Informal street vendors' operations are found in almost every urban area, however the way they affect urban communities' way of life is not well documented

Effects Of Location of ISFV On Urban Public' Socio-Cultural and Economic Wellbeing

The location of the informal street food ventures (ISFV) can be described as stationary, mobile, and semi-mobile (Edeme & Nkalu 2018). It is encouraged that the informal street food vendors work from locations that promote safe food quality, hygiene, and the health safety of the consumers (FAO & WHO, 1997), basically locating food points away from polluted environments and industrial activities. On the contrary, literature shows that the ventures are spontaneously located at different points- schools, near offices, bus stops and stations because of accessibility to customers, who ideally want to save time and cost. It is challenging for streetpreneurs to confine businesses at one location because it can adversely affect market visibility and capture. Confinement may lead to crowding that can hinder normal street operations. Concentration in crowded spaces for example at transport terminal points associated with noise from running engines, air pollution from vehicle exhausts and sometimes-poor waste disposal, may expose the foods to contaminants, thus compromising their quality and safety.

Streetpreneurs station in high human traffic or commuter flow areas for example at main street intersections or streets along malls and supermarkets or at the exit points of strategic facilities with high human traffic (Acho-Chi, 2002; Khongtong, *et al*, 2014; Alimi, 2016; Gupta *et al.*, 2018). High human traffic bus terminals target drivers, *matatu* (passenger vehicle) operators and conductors (passenger vehicles' assistants), bus ticket booth employees, and travellers. The target market also extends to people in formal employment in the environs of the high traffic areas notably people working in offices and stores, car wash and garage (Acho-

Chi, 2002) and the petrol station. The public patronizing high human traffic areas have food at their convenience. The informal street food points are also located close to or near marketplaces because of the proximity to the supply of raw materials, which enables vendors to minimize costs. However, this location makes the ventures vulnerable to pests and rodents, especially when they are located close to waste disposal and collection sites. Therefore, vendors must exercise caution to minimize and eliminate possible food contamination.

Informal street food eateries operate on a small-scale basis; this allows the operators to manage smaller amounts of waste. It is assumed that customers consume everything, and vendors minimize wastage to nearly negligible levels. Therefore, the vendors manage to hold their waste until the close of business when they carry the waste back home for reuse or disposal or until low business hours when vendors get time to dispose of the refuse at designated waste collection points.

The informal street food vendors also consider competition when locating the business. This partly explains the wide spectrum of foods produced and served to customers. Vendors capitalize on efficiency and effectiveness to stay ahead of their rivals. Therefore, the concentration of many sellers of similar products may not be a major concern for agile vendors. After all the products are located at the convenience of the customer or called “room service” of some sort. The ability and capacity to pay determines the quantity a customer consumes. The street market space exhibits perfect market competition: many sellers, buyers, identical products, and prices vary insignificantly. Therefore, customers are at liberty to choose from whomever to purchase the product. A study in Kumba town of Cameroon by Acho-chi (2002) revealed that convenient street food eateries are located within the range of between 5 meters to 500 meters. This begs the question: what are some of the strategies vendors use to attract and retain customers thus maintaining profitability or keeping the businesses afloat? What are the mechanisms

vendors use to minimize conflicts amongst themselves, given that they operate close to each other? Acho-chi (2002) observes that vendors strive to create customer loyalty. Informal Street food vendors may be unevenly distributed in town with varying densities from one street to another. The distribution and densities vary again based on the type of foods sold. Some foods are more dominant in some streets than others. What could be the possible causes of differences in the distribution and density of vendors on the streets? This valid question falls outside the scope of this research.

A study in the Nsukka urban area of Nigeria, examining the impacts of the operation of street foods on sustainable urban life, revealed that street foods contribute to sustainable urban life (income, vibrancy of life & meeting basic needs) despite the negative effects on the urban public (Edeme & Nkalu, 2018). Informal street food eateries promote linkages between vendors and formal organizations within the location’s vicinity; for example, the vendors purchase raw materials from supermarkets, local markets and farms (Edeme & Nkalu, 2018). Informal street food vendors have working integration business arrangements between themselves, for instance, the mobile street food vendors buy ready-to-eat items from other informal street food vendors and hawking them in the streets.

The informal street food eateries are condemned for being a public nuisance (Food and Agriculture Organization, 2011) even though it’s a blanket condemnation, where it is assumed that the general public has a negative attitude towards the informal street food eateries or the urban public are irritated at equal levels. It has also been argued that the informal street food eateries’ mode of operation-the improvised tools and equipment-disrupt the town’s activities. example blocking roads (FAO, 2011). This is based on the fact that the location of the ventures is in undesignated areas. It should be noted too that the ventures promote littering in the streets (Edeme & Nkalu, 2018) and crowding (Mwangi, 2002). The fact that local authorities are known to harass the

informal street food vendors, especially those without permits, such harassment may lead to confrontations that may disrupt normal town activities, thus adversely affecting legally established formal businesses.

The increasing number of Informal Street Food Vendors' operations in Kenya are creating new challenges that the existing policies cannot adequately address.

Effects of ISFV's Products on Urban Community's Socio-Cultural and Economic Wellbeing

The vendors use simple tools and equipment to operate the businesses, minimizing cost through simplicity. The vendors produce based on the 'craft industry' approach, foods are prepared in small quantities (Edeme & Nkalu 2018), thus making street foods appear affordable (Mwangi, 2002; Riet, 2002; Sun, et al, 2015; Cardoso, Companion, & Marras, 2014). The foods sold dictate the type of tools and equipment that the vendors use. The appearance of equipment and tools, and the manner of usage can affect the urban public. Some equipment and tools are rudimentary that the urban public may consider not appealing or tainting the town's image. This way the street foods through the tools of trade affect the urban public.

Vendors minimize costs either by completely producing the foods at home or by carrying semi-produced foods from home and finalizing the process in the streets (Edeme & Nkalu 2018). Partial or full production at home depends on the type of food a street vendor sells; some foods take more time to prepare, necessitating prior preparation at home. Other foods are prepared, cooked and dispensed in the street at the point of sale. The methods of food production differently affect the urban public. Not all urban public can tolerate the smell of all food commodities both in fresh and cooked states.

The informal street foods include carbohydrates, protein, vitamins and water. This might vary from town to town or from country to country. Existing studies indicate that carbohydrates are the most

common food commodities sold by informal street food vendors (ugali, uji (porridge), mandazi, starch). It's argued that the foods may be of low nutritional value (Mwangi 2002 and FAO, 2011) or maybe unhealthy in terms of the portions served, energy density, and levels of saturated fat, trans fats, salts, and sugars. This exposes customers to the risk of lifestyle diseases, which may overburden them financially and reduce the urban public's productivity because of ill health. This impact of informal street foods on urban communities can only be validated through a rigorous clinical study. A healthy lifestyle is part of the principles of sustainable development goals. A healthy urban population is a critical characteristic of a sustainable urban landscape. In the street, a customer can only consume based on the ability to pay. Therefore, vendors can't insist on a balanced diet for customers if the buyers do not have the ability to pay for a balanced diet combination. Different types of street foods generate unique wastes, which, if inappropriately disposed of, could exacerbate town pollution, thus posing a health risk to the town public and compromising the hygiene in the streets (FAO, 2011). Informal street food vendors whether stationary or mobile, all face challenges of inadequate refuse disposal points, and inefficient waste disposal systems which may pose serious environmental, hygienic and safety problems (Adhikari, 2017).

Informal street food vendors are rarely recognized and supported by local authority frameworks (Etzold, 2014); consequently, their contributions to socio-economic and environmental development are undervalued. In the absence of control frameworks, operators scramble for and overburden the existing limited infrastructures. Informal street vendors pay taxes, and it befits that they have access to adequate basic services to enable them to contribute meaningfully to economic growth. Unfortunately, existing literature suggests that the vendors do not get adequate support from town authorities. Either the authorities' interventions to enhance the informal street food vendors are insufficient or absent. Interventions put in place by the authorities to

facilitate informal street foods may not be clear. Existing literature points out that local authorities can facilitate efficient and effective supply chain systems that ensure vendors have access to readily available materials. The authorities can accelerate access to appropriate points for the sale of food, enhanced by robust and adaptable health guidelines. Recognition starts with the authorities strengthening the existing basic infrastructure e.g., water supply (Adhikari, 2017).

The absence of appropriate policy guidelines renders the safety and hygiene of informal street food products doubtful (Hill et al., 2018; Cardoso et al., 2014). Operating in unsafe conditions exposes foods to microbial contamination as well as customers to foodborne diseases (Mwangi, 2002; Etzold, 2014; Alimi, 2016). Again, this level of risk can only be ascertained through inspection and scientific testing of samples. However, perceived exposure to risks can be minimized by training and sensitizing vendors on food safety and hygiene (Mwove et al., 2020; Addo-Tham et al., 2020). The inability of the informal street food vendors to fit and operate within the existing formal frameworks or the absence of appropriate frameworks raises quality concerns about the produced and dispensed products. The absence of clear, and relevant frameworks mainstreaming the informal street food ventures into the conventional economy encourages non-compliance among traders, especially when they deem the existing regulations and laws costly to adhere to.

The mobile informal street food eateries may not have access to waste disposal infrastructures. Consequently, they may carry waste along that might eventually contaminate the foods or the waste's sight might irritate other people in the streets. Convenient access to waste disposal infrastructure minimizes contamination and keeps the vendor's station attractive (Muhonja & Kimathi, 2014; Muinde & Kuria, 2005). The street vendors' waste disposal rate must be commensurate with the local authority's collection frequency, any disparity will definitely pollute the town environment.

Informal street vendors produce food using different methods including boiling, deep-frying, grilling and roasting, which are dictated by different factors (Kraig & Sen, 2013; Sun, Liguori, Moussavi & Mehta, 2015). The methods too might have effects on the urban community through the diverse aroma associated with the production methods. The combination of different aromas in the atmosphere can inconvenience a section of the public. Street food vendors cooking in the open can't control smoke; it spreads all over depending on the prevailing weather conditions, thus causing more inconveniences.

The dangers of street food vendors' cooking techniques and sources of fuel are not well documented and there is no plan for dealing with these dangers.

Effects of ISFVs' Operating Time on Urban Community's Socio-cultural and Economic Wellbeing

The informal street food vendors' working time is not restricted. The vendors' work is based on flexible time schedules, which could start as early as 0400hrs and close at 0000hrs (Acho-Chi, 2002). Peak hours are characterized by a high concentration of informal street food vendors and customers on the street (Acho-Chi, 2002). Consequently, this causes disruption to urban public activities for example blocking roads and unnecessary congestion. Khongtong et al. (2014) observed that customers demand different foods at varied times of the day. This explains operation schedules' variations among the informal street food vendors.

THEORETICAL FRAMEWORKS

Most of the street food businesses fall under the informal economy; as a result, the ventures have attracted limited attention from researchers, resulting in limited information on their establishment, growth and economic impacts.

Huang *et al.* (2020) established an integrated model to explain the informal sector; the model integrates the informal economy's driving factors drawn from diverse theories. Huang *et al.* (2020) the development and growth of the informal

economy is a response to economic development, growth of tertiary industries, unemployment, rural-urban movements and settlements, and globalization. The informal street foods benefit from urbanization which is characterized by increased human traffic targeted by the street food vendors. Urbanization creates low and middle-income earners who, by default, promote the informal street food eateries. The absence of appropriate urban public laws increases informal street food vending points in public spaces and streets. The integrated model posits that economic crises increase the rate of unemployment and cost of living, driving people to seek alternative livelihoods in informal businesses, for example, establishment of the street foods ventures for self-employment, thus offering affordable and convenient foods. The growth of tertiary industries such as construction, transport, tourism, educational institutions among others also encourages the growth of the informal street food economy, whereby the vendors target low-income earners. Moreover, the migration from rural to urban areas increases the growth of low and middle-income residents hence increasing the demand for informal street foods. The integrated theory therefore suited the study, which focused on the assessment of the effects of the informal street foods on the urban public of Nyeri town.

The study also benefited from the Neo-Marxist theory supposing that the informal sector develops and expands as a result of modernization and urbanization (Williams, 2015 and Sassen, 1997). Firms with sufficient financial base take up the commercial spaces for operations, compelling low and middle-income entrepreneurs to move to areas in the urban spaces not designated for business setup and operations such as streets. There is evidence that the informal sector develops when people don't get opportunities in the formal economy. Lastly, the study also grounded in the Neo-Liberal theory advancing that the informal sector grows because entrepreneurs tend to evade the costs of legitimate businesses; avoiding complying with strict laws and rules, hence entrepreneurs' affinity to engage in businesses outside the formal frameworks

(Jonasson, 2012; Early & Peksen, 2018; and Huang, Xue & Wang, 2020). In Kenya, and some other developing countries, this is evident by the harassment the informal street foods face from the town's authorities. These theories are apparent when looking at the motivations of respondents in the informal street food ventures and the challenges they face.

METHODS

Study Site

The study was done in Nyeri Town. It is the headquarters of Nyeri County; formerly it was the headquarters of the central province of Kenya before devolution. It is located to the west of Mt Kenya and to the west of Aberdare ranges, and hence Nyeri serves as a gateway to Aberdare and Mount Kenya National Parks. Its elevation is approximately 5,750 feet, giving it a cool and wet climate. The original and current native inhabitants of Nyeri town are the Kikuyu community; those surrounding the town are mainly farmers growing coffee and tea alongside other food crops, fruits, and vegetables. Nyeri's urban population is at 80,081 according to the KNBS, 2019 census. According to the census reports, Nyeri's urban population have been growing and as a result, commercial activities and transport services are growing even though the infrastructure such as roads, streets and malls have remained the same over time. Therefore, there is a noticeable street congestion in the evening hours. The street congestions are partly contributed by informal street business; vendors, hawkers, and transporters such as trolleys and carts. Nyeri's urban vibrancy is also contributed by tarmac road connections from the surrounding cities and the capital city, Nairobi. There are two major transport (*matatu*) terminals, *stage ya chini* (Nairobi *matatu* terminal) and *stage ya juu* (Nakuru *matatu* terminal). Next to the Nairobi *matatu* terminal, there is a local market, which is the only formal local market in Nyeri town.

Research Design

Cross Sectional Survey design (Connelly, 2016) was used to gather data from the informal street

foods actors particularly the Nyeri street foods vendors and consumers. Cross Sectional Survey design was deemed most appropriate (Charmes, 2002) due to the unavailability of published statistics and surveys on the impacts of the informal street foods economy in Nyeri Town. Moreover, the complexity of assessing informal street food dynamics, public and impacts would best be addressed at a low cost through a cross-sectional survey design. The researcher used the cross-section survey design to understand the effects of informal street foods on the Nyeri public from the perspectives of the sellers and buyers (Glassner and Loughlin 1987: 37).

Sample Size and Data Collection

Informants consisted of 64 informal street food vendors and 385 consumers in the Nyeri Central Business District. The researchers used an enumeration-sampling technique (Passmore and Baker, 2005) targeting the informal street food

$$n = \frac{Z^2(p)(1-p)}{m} = \frac{1.96^2 * (0.5)(1.0.5)}{0.052} = 385$$

Face-to-face questionnaires were administered to vendors and consumers in order to encourage complete responses. The questionnaire contained information on location, food products & methods of preparation. 64 street food vendors and 353 (92%) response rate) street food consumers responded to questionnaires. Data was entered into the Excel worksheet for analysis.

Data Analysis

The qualitative data was analysed using thematic content analysis, where data is scanned and organized into precise appropriate categories (Silverman and Marvasti 2008). The researcher structured the questionnaires based on the three objectives. The researchers used the Excel application to categorize the responses based on the study objectives. Stage one of data analysis involved entering the responses to open-ended questions into the Excel document. The researchers evaluated the responses in order to identify the possible themes. Stage two involved assigning the responses to the identified themes.

vendors who were preparing and selling street foods in the Nyeri town CBD. The non-random convenience sampling method (Simkus, 2022) was used to target 385 informal street food consumers who responded to the questionnaire. Questionnaires were only administered to consumers who were observed purchasing street food and were willing to participate in the study. The Cochran formula was most appropriate for estimating the sample size as illustrated. This formular is widely used in estimation of the sample size from the population with unknown sizes. The total number of the informal street food consumers in Nyeri town is not known.

Whereby m is the desired level of precision (margin of error); p is the fraction of the population (as a percentage) that displays the attribute and z is the z-value (Bhandari, 2023), extracted from a z-table.

The researchers examined and deliberated the themes with the view of identifying related themes that could be combined. This stage was critical because it helped reduce the themes to a manageable level and minimize idea redundancy. Stage three involved tallying the responses under each theme to establish the frequency that was used to compute the percentage for each theme. The researcher used the “Wordcloud”-an online application to tally the frequencies. The researcher Based on the frequency or percentage of the researchers identified a dominating idea that was interpreted based on the context of the question.

FINDINGS AND DISCUSSIONS

Business Motivation

Semi-structured interviews were conducted in Nyeri town CBD on informal streetpreneurs producing and selling foods. Motivation for engaging in the informal street food venture varied among the respondents. Key motivations included generating income, where 97 % of the

respondents cited self-employment and 3% cited the creation of jobs for others. Surprisingly, respondents did not engage in informal street food ventures because they saw a business opportunity. The “business opportunity” statement was only cited 7 times out of the recorded 90 citations. This implied that the vendors pursued streetpreneur activities because they had no alternative formal options. The informal street food ventures were the only way to sustain their livelihoods and those of their families. This is supported by the fact that all the foods are identical. 83% of the surveyed

vendors owned the businesses they operated; 11% were employed and the rest had a partnership arrangement. Given the small size of the business, only 37% of the vendors occasionally engaged casuals on a need basis. This helps them minimize operation costs and maximize profits.

The informal street foods appealed to a wide market segment irrespective of gender, religion and profession (cf. *Figure 1*). This disputes the argument that street foods are only consumed by low-income or poor people.

Figure 1: Customers served by vendors.

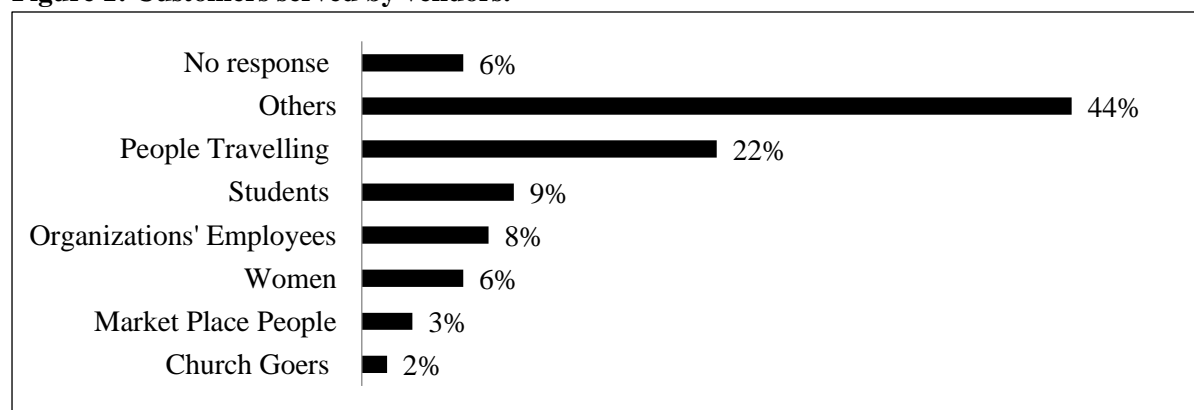


Figure 1 shows the types of customers served by the informal street food vendors. The vendors cited customers based on activities, profession and gender. They also cited general public which is referred to as ‘others’ in *Figure 1*.

The surveyed 353 customers who bought street foods had visited Nyeri town for different reasons. They were asked to cite what they were doing in

Nyeri town and were allowed to cite multiple activities. The highly cited motivations included studies, work and business (*Table 1*). The majority of the surveyed customers were students and the working class. The youngest and oldest surveyed customers were aged 16 and 60 years, respectively. 91% of the customers resided in Nyeri County.

Table 1: Customers' Motivation to visit Nyeri town.

Motivation	Frequency
Studies	106
Business	55
Work	100
Internship	3
Touring	9
Visiting	10
Shopping	39
Government services	2
Banking services	2
Phone Repair	1
Job search	1
Meeting	1
No Response	25

This concurs with Mwangi (2002), arguing that informal street foods support the food supply value chain, right from production to consumption. The vendors sourced their ingredients from the Nyeri Open Markets including the Kamukunji¹ located within the Central business district. Others sourced raw materials from the supermarkets, Farmers Choice and Butchery. Out of the 58 citations, 5 citations accounted for vendors who produced their own ingredients. In this case, informal street food ventures are promoting value addition in Nyeri County.

Effects of Location of ISFV on Town Public's Socio-cultural and Economic Wellbeing

The informal Street Food Vendors are generally spread out in Nyeri Town. 81% of surveyed vendors operated from fixed locations, concentrating in high human traffic zones for example Kamukunji market, lower stage bus terminus near Naivas Supermarkets, and along Kimathi Street (Cf. *Figures 2, 3 and 4*). Vendors set up their businesses at the convenience of customers. Kamukunji ground hosts the open-air market, highly frequented by traders and customers. It has well-maintained public restrooms. In this regard, vendors have access to many customers.

Figure 2: Location of street food vendors.

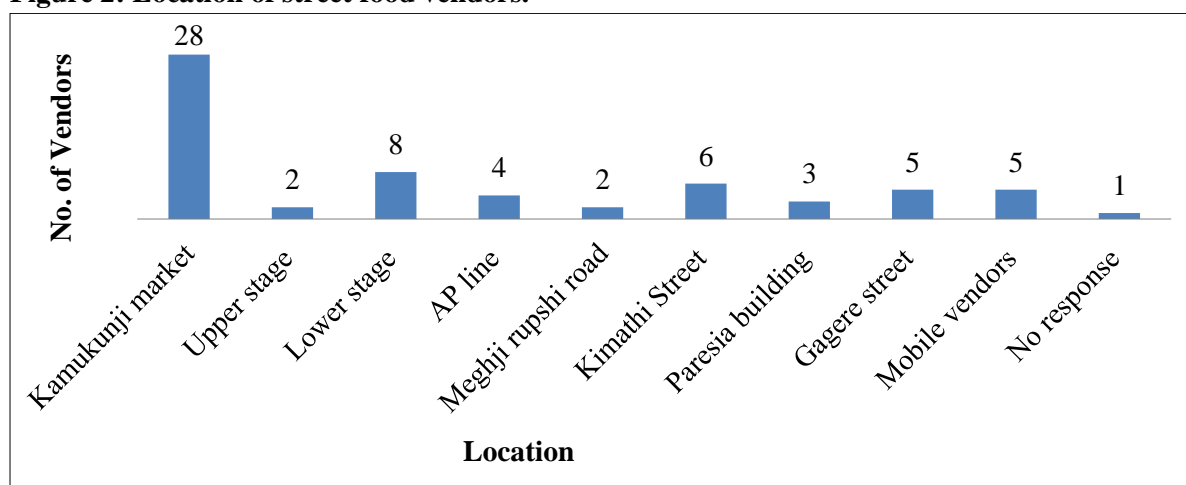
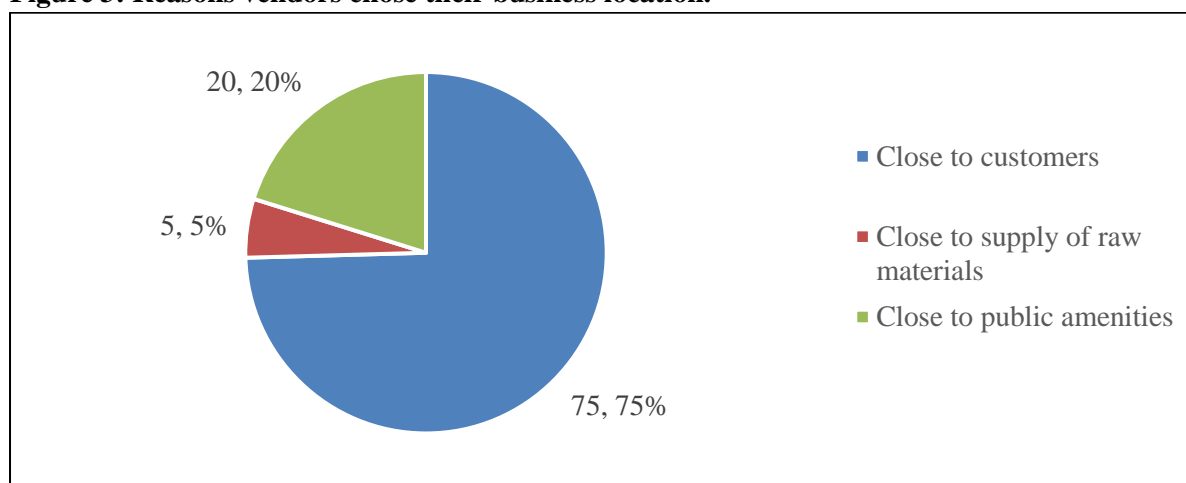


Figure 3: Reasons vendors chose their business location.



¹ The county government has plans to relocate the Kamukunji to a suitably built space.

Figure 4: Reasons vendors preferred fixed location to mobile operation.



The study established that the selling location affected the town public in different ways. Vendors set up their stalls in public spaces, thus greatly inconveniencing other street users. Vendors were requested to select statements that best described the town public's attitude towards the informal street food ventures. The most cited statements were that informal food ventures increased waste in the streets and caused obstruction to other street users. The vendors selected the statements based on the "street talks"

(what they hear the street users say) about their ventures (*Table 2*). Street food customers also selected statements that best described their attitude towards the street food businesses. Customers also cited that the informal street businesses increased street wastes and occasioned obstructions. Based on customers' judgements, "the informal foods are unsafe," "the informal foods are unhealthy," and "... increase waste..." received the highest mentions (*Table 3*).

Table 2: Remarks made by street users about the informal street food businesses.

Remarks from the street users	Frequency
Increase wastes	19
Obstructive equipment	18
Generate smoke	17
Hinder movement	8
Offensive food aroma	8
Increased noise	1

Table 3: Remarks from customers about informal street food businesses

Remarks from Street Food Consumers	Frequency
Informal street food businesses make streets unattractive	42
Informal street food businesses increase waste/litter in the streets	49
Informal street food businesses hinder effective movement in the streets	4
Informal street food vendors operate in unsafe conditions	7
Informal street foods are unsafe	113
Informal street foods are unhealthy	53
Informal street foods cause crowding in town	13

The vendors also were asked to describe the street public's attitude towards the informal street foods. The responses analysed using the Wordcloud online generator² pointed out that the street public was concerned that street foods led to waste and untidy streets (*Figure 5*). The vendors cited that the "street talks" are about the safety and health status of the street foods. This corroborated the customers' judgement about the street foods (*Table 4*). Therefore, waste, attractive status of the

street, unhealthy, unsafe and obstructions are key public concerns. These concerns are frequently associated with street foods (FAO, 2011). Despite, these concerns customers' demand and the vendors' push to earn a living encourage the informal street foods business in Nyeri town.

The vendors observed that their common wastes include food peels, packing materials and food wrappers as well as food leftovers (*Figure 6*).

Figure 5: Attitude of the street public towards the street foods.



Figure 6: Type of waste generated by the informal street food vendors



The accumulated food peels in public streets creates an unappealing scene. Street food vendors operate their businesses for at least 4 hours in the open exposed to the prevailing weather conditions; some wastes notably the food peelings deteriorate quickly, thus interfering with the

aesthetic quality of the street. Wastes affect the attractiveness of the Nyeri town streets and the quality of air in the streets.

The informal street food vendors keep waste using modest dustbins and sacks. Some of the sacks are

² <https://www.freewordcloudgenerator.com/>

used to carry food staff. This could be the reason some street customers are concerned about the safety of food. The unfortunate scenario is that the highly perishable peels kept in sacks deteriorate faster thus releasing juices in the streets, which customers cited as dirty water that makes the

street untidy (*Table 5*). Some buckets and dustbins used to keep the waste are not in good condition hence leaking the contents in the streets. This is a health hazard to the pedestrian as the liquid could cause sliding.

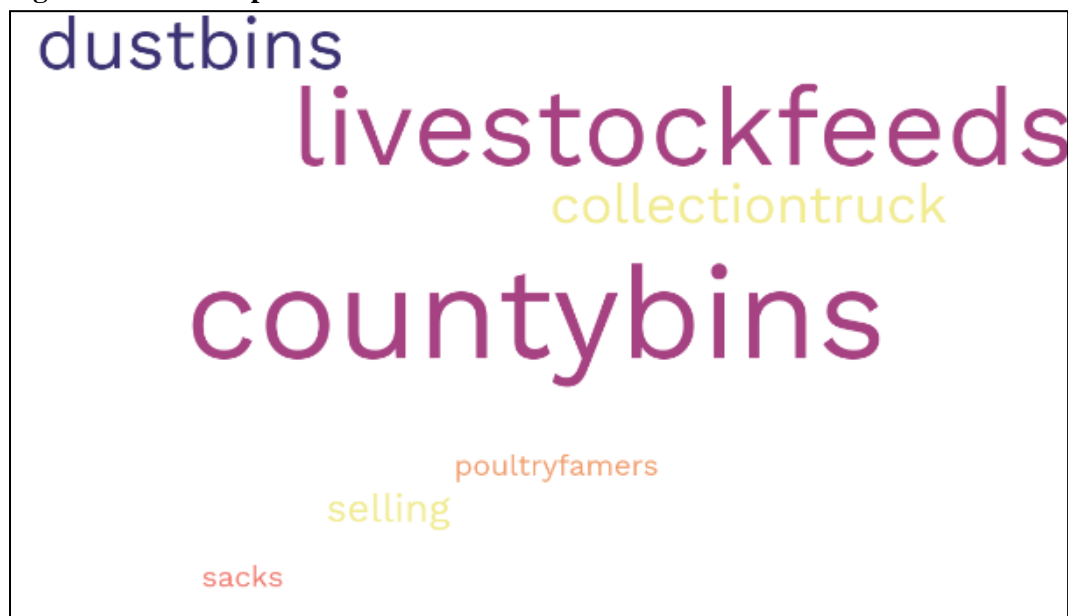
Table 4: Type of wastes cited by customers.

Type of wastes	Frequency
Food Packaging & Wrapping Material	157
Food Wastes	157
Dirty water	4
Ash	7
Oil spills	1
Other wastes	22

Vendors use different approaches to dispose of the waste (*Figure 8*). Some sort out the wastes in order to sell them to livestock keepers. In this regard, a sustainable waste management value chain is developed between the street food

vendors and the farmers in the neighbourhood of Nyeri town. Even some vendors keep livestock and poultry. Wastes that cannot be used are deposited of in the County dustbins.

Figure 7: Waste disposal methods.



Generally, the informal street food vendors dispose of waste in the county waste bins located at strategic points in Nyeri town. Edible wastes are fed to animals. Some vendors carry the waste to their homes. The informal street food vendors are practicing waste separation especially when it comes to food peels. This is a good practice because it promotes sustainability practices. But this only applies to the wastes that can be fed to

domestic animals. There's still a challenge to manage the other wastes, for example, the eggshells.

The location of the informal street food businesses affects the general town public (the shop owners, motorists and vendors-hawkers) by exacerbating the congestion problem experienced in the Nyeri town streets. Vendors experience challenges

(Figure 9) in the streets but they bravely put up with them in a bid to protect their sources of livelihoods. On one hand, the motorists and the pedestrians blame the vendors for blocking the streets during peak hours. On the other hand, the shop owners, restaurant owners accuse the informal street food vendors of blocking entry to their facilities. Competition for space in

privileged locations is real and sometimes it can escalate into physical confrontations. In extreme cases, the conflict between the informal street food vendors and the town public impedes human and vehicular traffic circulation and even the operations of the formal mainstream businesses, thus adversely impacting the urban community.

Figure 8: Problems experienced by other street users.



Effects of ISFV's Products on Town Public's Socio-cultural and Economic Wellbeing

The commonest foods sold by the vendors in Nyeri town include indigenous starchy foods like sweet potatoes, arrowroots, yams, *mukimo* and cassava. The protein foods include smokies, *mutura*³, samosa, fish, beans, meat (beef & chicken) and boiled eggs (Table 5). The carbohydrates include sour porridge, green maize, French fries, mandazi, *chapatti*. The indigenous balanced diet special includes *githeri*⁴. In-season fruits include watermelon, apples and bananas. Hot beverage includes coffee and tea. The protein foods were the dominant commodities in high demand (Figure 9). The findings from the vendors concurs with the results obtained from customers

regarding the food they frequently buy, where protein was the dominant followed by carbohydrates.

Despite some health and safety concerns customers and the general public have about informal street foods, customers still prefer informal street foods to foods sold in formal facilities like restaurants and hotels. They choose informal street foods because of affordability, hunger, convenience and deliciousness (Table 6). 61% of the surveyed customers indicated that they would still purchase food from informal street vendors while 27 % would buy food from formal restaurant foods, 2% would combine formal restaurants and informal street foods, and 10% did not respond.

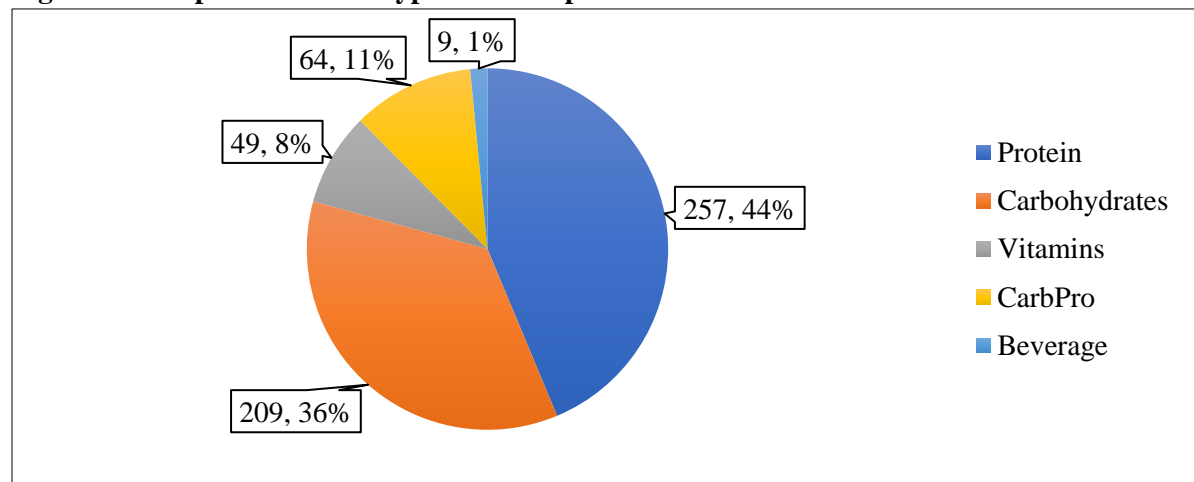
Table 5: Street foods purchased by customers.

Food	Freq	Food	Freq
Smokies	104	Mutura (indigenous Kikuyu sausage)	40
Sausages	19	Mandazi	5
Chips (French fries)	85	Samosa	26
Boiled maize	12	Cakes	5
Smocha (smokie rolled in a chapatti)	28	Roasted banana	2

³ African sausage: goat intestines are stuffed with selected pieces of meat, blood and assorted spices (Kraig & Sen, 2013).

⁴ Combination of beans and corn boiled together. Other foods ingredients can be added.

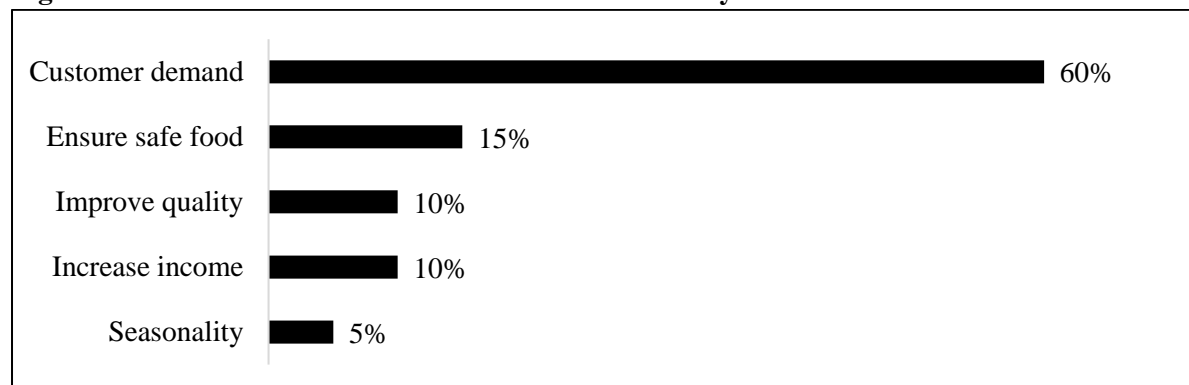
Food	Freq	Food	Freq
Boiled eggs	63	Ripe banana	2
Fruits	47	Arrow roots	3
Coffee	7	Bhajia	3
Tea	2	Mukimo	4
Roasted beef	4	Boiled beans	4
Roasted chicken	11	Githeri (mixture of beans & green maize)	5
Mshikaki (pieces of meat on skewers)	4	Chapatti	32
Fried fish	7	Others	7

Figure 9: Comparisons of the types of foods purchased in the streets.**Table 6: Reasons that customers buy Street Foods**

Reasons	Frequency
Affordable	81
Hunger	63
Delicious	59
Convenient	59
Attractive	25
Favourite	20
Fresh	9
Sample	9
Nutritious	8

The vendors chose the food to sell based on customer demand and preference, availability of ingredients, vendor's skills to prepare the food. Any major variation depended on the customers' demand. The vendor's implemented minimal variations geared towards increasing revenue, improving quality, and enhancing the safety of the

foods (Figure 10). The informal street foods market operates in perfect competition. Where products are identical with minimal variations in prices (Tribes 2011). For this reason, 76 % of the vendors noted that they hardly varied the foods they sell while the remainder routinely made minimal variations.

Figure 10: Factors that influence the variation of foods by vendors.

The unwillingness by vendors to vary products could imply that either customers are loyal to the same products or there is a low level of creativity and innovativeness among the vendors, or vendors are reluctant to increase their risk appetite by significantly varying the existing products. The informal street food vendors operate on the “*kadogo* economy” –selling in smallest quantities. Therefore, considerable variation in food products increases the risk exposure.

The study also established that the customers consume food at different points. Most of the food is eaten in the street (eat while walking and eat at

the point of sale). Those who eat while walking throw the litter in the streets, and those who eat at the selling point leave the litter there. This explains why the street talk was that ‘informal street food businesses increase wastes in the streets,’ thus compromising the streets’ tidiness. Customers who eat while walking have little time to look for county dustbins, which usually are strategically located and not spread out everywhere. And if they were located everywhere, it would mean that the dustbins are lined up in the streets of Nyeri. Such a scenario is not economically, and socially viable.

Table 7: Customer’s point of consumption of street

Reasons	Frequency
I buy and eat ready-to-eat food in street while waking	78
I buy and eat food at the point of sale in the street	50
I buy street food and eat at home	104
I buy street food to eat at work	78
Others	2

The informal street food vendors deploy diverse strategies to attract customers namely offering quality foods and ensuring clean working areas particularly the tables (*Figure 11*). Some vendors creatively display their products to entice

customers. Some vendors call customers, although this strategy is not welcome by all customers because some feel embarrassed and end up just buying for the sake. This is inconveniencing to some town public.

Figure 11: Strategies applied to attract street customers.



The informal street food vendors use different strategies to keep customers. The most cited included maintaining quality food, talking well to customers and maintaining a clean working environment (*Figure 12*). Vendors combined different common foods to form unique packages-

for example smocha, where a smokie is rolled in a chapati with some salad called *kachumbari*⁵. This makes a combination of carbohydrates and proteins (Carbpro). This is an attempt to create a balanced diet in the street.

Figure 12: Vendors' strategies to retain street customers.



Working in the streets poses some challenges to vendors. The vendors have to deal with rude customers, while other customers eat at the point of sale then refuse to settle the full amount, triggering unexpected confrontations, which eventually interrupt peace in the streets. This affects the businesses of the nearby vendors

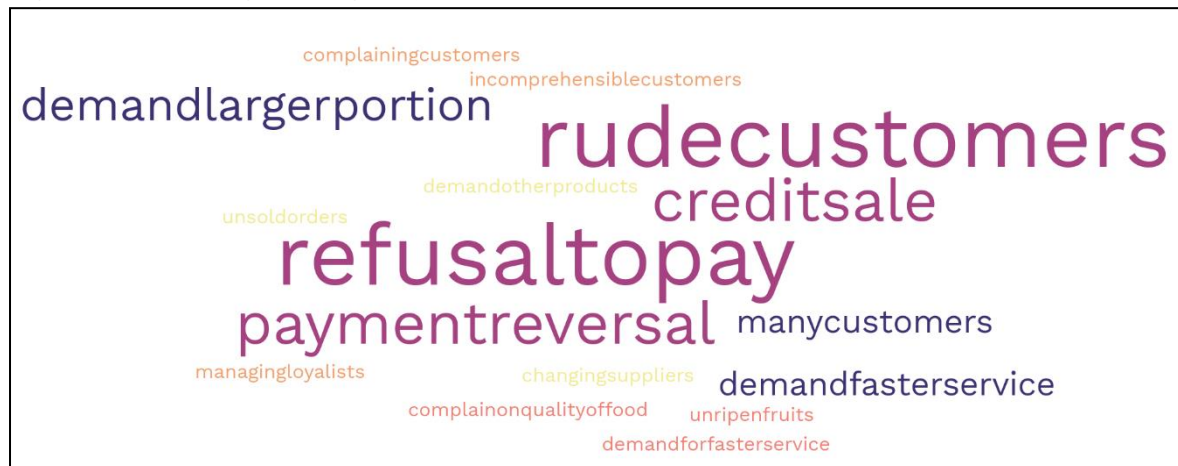
because customers take off without buying. Some who pay via mobile funds transfer reverse the payment immediately after they leave the point of sale (*Figure 13*). For every challenge, vendors have always found ways to address it. To prevent the reversal of payments, some vendors have opened specific bank accounts where customers

5 Sliced raw tomato mixed with sliced fresh onion with freshly chopped chilli depending on the taste of customers.

send payments. It is difficult for the customer to reverse the payment because the reversal will involve the vendor's approval. The street affairs are not always handled diplomatically. Diplomacy applies when a customer appears diplomatic.

When the need arises, some vendors hire casuals or get a helping hand from family members to serve increased customers. Vendors occasionally reward loyal customers by serving them slightly a larger portion.

Figure 13: Challenges brought by customers.



The food preparation affects the Nyeri public differently. The most cited and observable food preparation method was frying (both deep and shallow frying (*Table 8*). Whereas boiling is a quiet method, frying methods affect street users. Open-air frying poses a great risk to street users,

especially during pick hours. The informal street food businesses threaten the security and safety of street users because the Nyeri town streets were not developed in a manner to accommodate the street vendors. This points out weaknesses in town planning and governing.

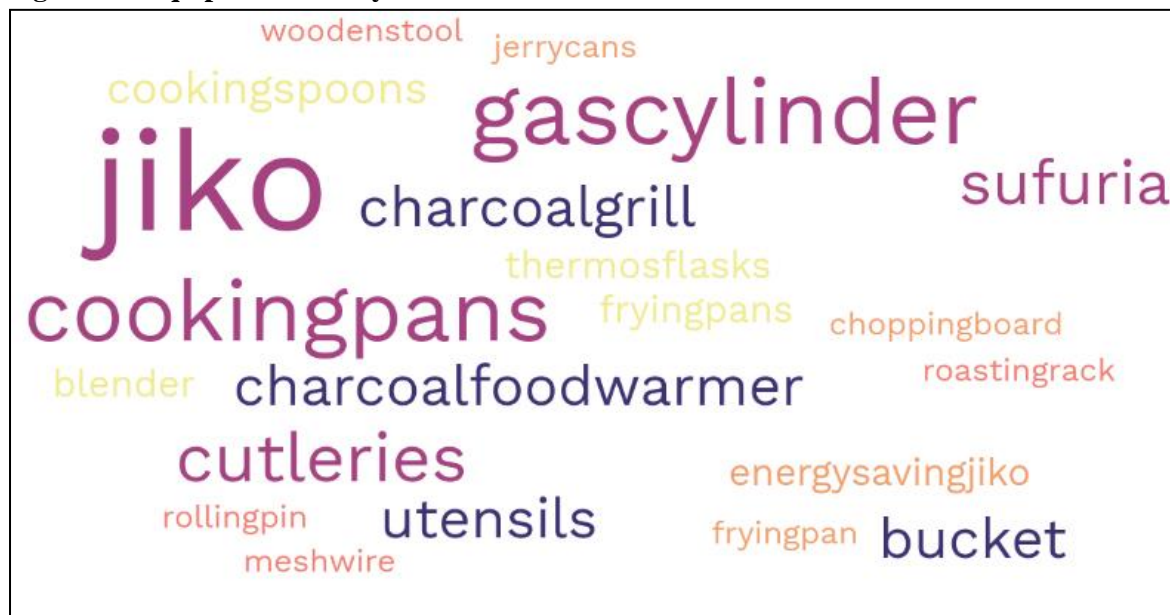
Table 8: Preferred Food Preparation Methods

Food Preparation Methods Preferred by Vendors	Frequency	Food Preparation Methods Preferred by Customers	Frequency
Frying	26	Frying	166
Boiling	15	Boiling	113
Roasting	12	Roasting	115
Baking	3	Baking	11
Blending	3	Blending	49
Squeezing	1	Squeezing	0
No Response	5	No Response	101

The commonly cited and observable cooking equipment was the non-energy-saving charcoal stove (*Jiko-Figure 14*). Energy saving Jiko was only cited twice. Some vendors used the 6kg gas cylinder cooking stove. The researchers observed that none of the vendors had fire extinguishers as

a risk-mitigating strategy. This exposed vendors, customers and the general street public to a fire risk. The food preparation methods affected customers for example some complained of offensive food aroma.

Figure 14: Equipment used by informal street food vendors.



Effects of ISFV's Operating Time on Town Public's Socio-cultural and Economic Wellbeing

Most of the informal street food vendors were full-time operators with scheduled business opening times and closing times. Operations begin as early as 5 am in the morning and close as late as 1 pm (Figure 15). Only a handful of the vendors observed that they didn't have a specific time for opening and closing the business.

Figure 15, The operating time is dictated by the availability of customers, family chores and the required food preparations logistics. Besides the

opening time, the peak hours for most food vendors fell between 11 am and 6 pm. The 11 am to 2 pm time block marked the mid-morning and lunch breaks; hence the increased business, and the 3 pm to 6 pm time block fell within evening time associated with people changing job shifts-where some are going home while others are going to work. It is during the peak hours of 3 pm-6 pm that customers buy semi-processed street foods to complete the preparation process at home. The peak time comes with its own challenges for example influx of customers (Figures 16 & 17).

Figure 15: Time vendors open their informal street foods business.

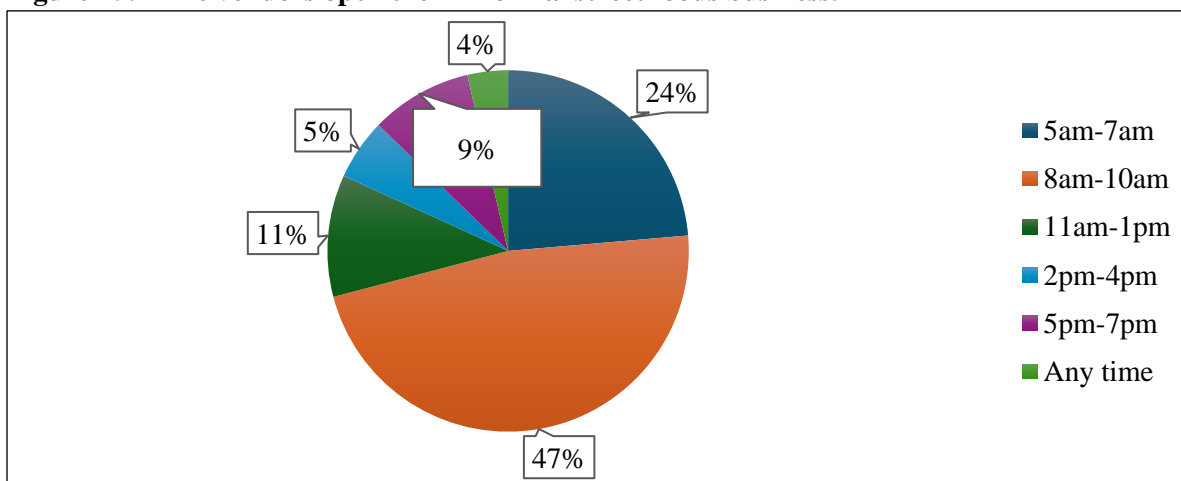
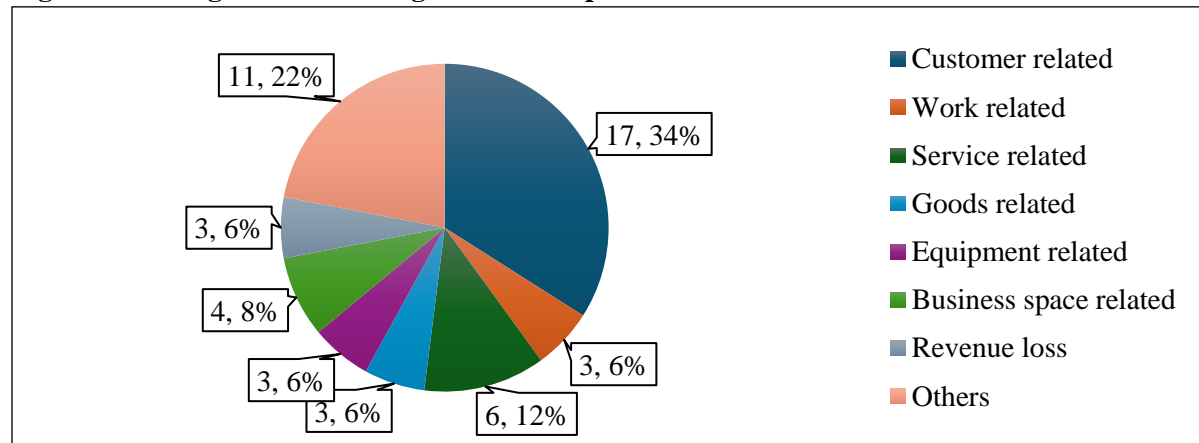


Figure 16: Categories of challenges related to peak hours.



Other challenges include limited working space, impatient customers and service delivery lapses, which occasionally lead to service delays. The study established that 87% of the informal street

food vendors operate at least six days a week, implying that they encounter the challenges on a daily basis.

Figure 17: Vendors' peak time challenges.



The vendors address the daily challenges by insisting on cash payments, collaborating with telecommunication companies to minimize the

reversal of mobile payments, using courteous language to their customers in order to win repeat businesses (*Figure 18*).

Figure 18: Strategies used by vendors to address challenges.



Most vendors close their businesses between 6 pm and 8 pm because most vendors don't live in Nyeri town. In this regard, the streets of Nyeri town are the "official workstations" for the informal street food vendors. Any policy directive that affects the streets of Nyeri town will impact the vendors' livelihoods.

peak hours for informal street food hours are associated with increased conflict where law enforcers collect levies from the vendors. This occurs especially when vendors feel that the law enforcers collect levies outside official working hours. Whenever the vendors fail to comply, the

law enforcers confiscate their goods and equipment. This can escalate to physical confrontations that sometimes end up with some causality. This depicts the vulnerability of informal street food vendors towards the authorities. In extreme cases, the law-enforcing agency (police) may be called upon to intervene. Such occurrences and conflicts are common in towns and urban areas with street food vendors (Etzold, 2014). Vendors resolve and minimize conflicts by complying with the law through the payment of the prerequisite county levies (*Figure 19*). In extreme cases, vendors seek an audience with the county administration –the Governor.

Figure 19: Resolution of conflicts.



Even as vendors explore different strategies to ensure peaceful businesses in the streets, they suggested a number of strategies for peaceful streetpreneurship. The call for favourable policies to support the informal sector in Nyeri Town

(*Figure 20*). The vendors advocate for continuous consultation with the country administration, provision of long-term licences, and where applicable, based on a case-by-case basis, the county administration to grant waivers. The

vendors expressed the need for appropriate permanent stalls for renting. However, such stalls need to be in locations with high human traffic. Vendors argued that sometimes the county law

enforcers treat them inhumanely. The enforcers need to consider and respect the informal street food vendors.

Figure 20: Lasting solutions to conflicts from the vendors' perspective.



The informal street food ventures generate income for the vendors. Some vendors (56%) save part of their income in order to achieve long-term personal goals, 22% don't save 22% did not respond to the question. The most cited mode of saving is through the Saving and Credit Cooperative Organizations (Sacco). The informal street food ventures contribute to the creation of wealth, through saving. The informal street food vendors represent the true spirit of streetpreneurship. Every day they are committed to hustling out their daily bread.

CONCLUSION

The informal street foods business is a form of employment through which vendors sustain their livelihoods. The business has a wide market segment cutting across students and the working class. Informal street businesses facilitate the flow of resources and promote mainstream economies like agriculture, retail and food. Therefore, the informal street foods economy contributes to wealth creation in the county. There are a lot of unstudied value-addition processes in the streets of Nyeri town. Most vendors operate from fixed locations. Some have been doing so for decades,

implying that the informal street food business pays.

The study concludes that informal street food ventures affect the town public in a number of ways: increase waste in the streets, make the streets unattractive and cause obstructions. The vendors' businesses block the streets affecting traffic flows, and the mobile stalls block the entries to retail businesses. Despite the fact that the "street talks" suggest that informal street foods are unsafe and unhealthy, customers still prefer the foods because of their affordability and convenience. The current approaches the vendors use to manage the waste are of great concern. There is a need for a sustainable waste management system.

Protein foods were the dominant food type, followed by the carbohydrates. The concerns of customers and the general public were on the manner the unsold foods were preserved. The concern is that if the foods are not preserved appropriately, vendors could expose consumers to food poisoning. This is part of the reasons that the street talks suggested that street food is unsafe. Vendors undertake minimal variations on the food they sell. Most of the customers eat their food in

the streets and therefore throw the wrappings and leftovers in the streets. Vendors use varied strategies to attract customers including beautiful displays of food, cleanliness and calling at customers. However, calling customers embarrasses some potential buyers, especially when the buyer is called when he or she is not in the appropriate context. This makes some pedestrians avoid some streets during peak hours. Despite the informal status of the businesses, vendors apply formal customer retaining strategies for example: quality foods, courteously talking to customers, clean equipment, and varying the products. Each informal street food vendor tends to have different parameters to determine quality. The food preparation methods affect the town public in different ways: noise especially the deep-frying methods, air pollution from the smoke, and from the diverse food aroma. This affects street users, who might be allergic to aroma. The preparation of foods in the open exposes the street users to fire risks. Unfortunately, none of the vendors have an insurance cover in case an accident happens. The food preparation equipment causes obstructions resulting in congestion in the streets.

The informal street food vendors have scheduled business hours, meaning it is a full-time job. The peak hour poses challenges to vendors including increased customers, limited working space, and service lapses. Many customers mean overcrowding in the streets because each customer expects to be served. The landscape created in the street constitutes the Nyeri town streets' identity. The diversity of products offered creates an opportunity for vendors to operate through the spirit of complementarity. In so doing, the vendors create meaningful social bonds, hence enhancing each other's social capital. Such connectedness creates a sense of belonging among the vendors, which promotes the exchange of information among the stakeholders. The streets form the vendors' workstations, whereby their businesses affect the streets and vice versa. The vendors are part of the street business community. The vendors are organized under the informal street vendors association. Any policy that affects

the street affects them too. In this case, they have a right to be involved. Informal street food vendors need frameworks that reflect the very nature of the ventures' informality, which is always not the case! In the Nyeri town case, it's not clear what rules are followed to determine who stations where what business should be set up where and for how long.

Recommendations

There is a need to explore ways to change the perception that informal street foods are unsafe and unhealthy and the ventures make the street look unattractive. In countries like Thailand in the city of Phuket, informal street foods are conducted in an organized manner. Benchmarking with others that are ahead will help enhance the informal sector of the economy.

It will also be necessary to sensitize the informal street food vendors on sustainable management of street waste. This can range from undertaking structured and targeted awareness campaigns for customers and vendors. Each actor needs to be reminded to dispose of waste appropriately. This can also be enhanced through tailor-made waste management, food production and hygiene short courses targeting the vendors. The vendors need continuous skilling and reskilling in nutritional quality, value addition and marketing techniques. This can help enhance the professionalism in the street business. Street food ventures provide opportunities for innovation, especially the development of sustainable and affordable edible food wrappers. This can minimize waste in the streets. The vendors can consider deboning fish so that all is edible.

It is also important for the manufacturing sector to fabricate safe and affordable equipment that the informal streetpreneurs can adopt. Technological institutions can take up the challenge and make their contributions to the growth of the informal sector. This support might facilitate more informal ventures to grow and eventually transition to formal status.

More research is required in order to understand how quality is interpreted in the streets, and to

what extent the street quality parameters converge or diverge from the conventionally determined quality standards. Occasionally, there arise some confrontations between the vendors and customers, which do not affect other vendors, street users and the formal businesses.

There is a need to develop appropriate frameworks to support the informal street business. This can be achieved through developing structured systems that facilitate continuous engagements between the vendors and the county authority. This will help address the long-standing persistent inconveniences and promote good governance.

REFERENCES

- Abrahale K., Sousa S., Albuquerque G., Padrão P., Lunet N. (2019) Street food research worldwide: a scoping review. *Journal of Human Nutrition and Dietetics*, 32: 152–174, DOI: 10.1111/jhn.12604
- Acho-Chi, C. (2002). The Mobile Street Food Service Practice in the Urban Economy of Kumba, Cameroon. *Singapore Journal of Tropical Geography*, 23(2): 131–148. DOI: 10.1111/1467-9493.00122
- Addo-Tham, R., Appiah-Brempong, E., Vampere, H., Acquah-Gyan, E., & Akwasi, G. A. (2020). Knowledge of Food Safety and Food-Handling Practices of Street Food Vendors in Ejisu-Juaben Municipality of Ghana. *Advances in Public Health*, 2020: 1–7. DOI: 10.1155/2020/4579573.
- Adhikari, D. B. (2017), Informal Street Food Trade: A source of Income Generation in Nepal. *Economic Journal of Development Issues*. Vol. 23 & 24. No. 1-2 (2017) Combined Issue.
- Alimi B.A. (2016), Risk Factors in Street Food Practices in Developing countries: A review. *Food Science and Human Wellness*, 5 (3) (2016), pp. 141-148.
- Bhandari, P. (2023, June 21). The Standard Normal Distribution | Calculator, Examples & Uses. Scribbr. Retrieved November 27, 2023, from <https://www.scribbr.com/statistics/standard-normal-distribution/>
- Cardoso, R. C. V., Companion, M., & Marras, S. R. (Eds.). (2014). *Street Food: Culture, Economy, Health, and Governance*. London: Routledge.
- Charmes, J. (2002). Estimation and survey methods for the informal sector. *University of Versailles, Versailles, France*.
- Cochran, W.G. (1977). *Sampling Techniques*. 3rd ed. New York: John Wiley & Sons.
- Connelly, L. M. (2016). Cross-sectional survey research. *Medsurg nursing*, 25(5), 369.
- Early, B., & Peksen, D. (2018). ‘Searching in the shadows: The impact of economic sanctions on informal economies’, *Political Research Quarterly*, 72(4), pp. 821–834. doi:10.1177/1065912918806412.
- Edeme, R. K., & Nkalu, N. C. (2018). Operations of street food vendors and their impact on sustainable life in rural Nigeria. *American Economic & Social Review*.
- Etzold B., (2014). Towards fair street food governance in Dhaka, Moving from exploitation and eviction to social recognition and support. In R.C.V Cardoso, M. Companion and S.R. Marras., (eds), *Street Food: Culture, Economy, Health and Governance*. London: Routledge.
- Food and Agriculture Organization & World Health Organization. (1997). *General Requirements (Food Hygiene)*. *Codex Alimentarius*. Rome: Food and Agriculture Organization
- Food and Agriculture Organization & World Health Organization. (2005). *Annex 9. Informal Food Distribution sector in Africa (Street Foods): Importance and Challenges CAF05/4.Agenda item7*. FAO on <https://www.fao.org/3/a0215e/A0215E26.htm>

- Food and Agriculture Organization. (2003). The Informal food sector. Municipal support policies for operators. "Food in Cities" Collection, N0. 4. Rome: FAO of the United Nations. Available on: <https://www.fao.org/3/y4312e/y4312e.pdf>
- Food and Agriculture Organization. (2009). Good Hygienic Practices in the Preparation and Sale of Street Food in Africa: Tools for Training. Rome: Food and Agriculture Organization
- Food and Agriculture Organization. (2011). *Street foods: the way forward for better food safety and nutrition*. Rome: Global Forum on Food Security and Nutrition/FAO.
- Gupta, V., Khanna, K., & Gupta, R. K. (2018). A study on the street food dimensions and its effects on consumer attitude and behavioural intentions. *Tourism Review*, 73(3): 374-388. DOI: 10.1108/TR-03-2018-0033
- Hill, J., Mchiza, Z., Puoane, T. & Steyn, N. P. (2019). Food sold by street-food vendors in Cape Town and surrounding areas: a focus on food and nutrition knowledge as well as practices related to food preparation of street-food vendors, *Journal of Hunger & Environmental Nutrition*.14(3): 401-415. DOI: 10.1080/19320248.2018.1434104
- Huang, G., Xue, D., & Wang, B. (2020). Integrating Theories on Informal Economies: An Examination of Causes of Urban Informal Economies in China. *Sustainability*, 12(7), 2738. DOI: 10.3390/su12072738
- Jonasson, E. (2012) Government Effectiveness and Regional Variation in Informal Employment, *The Journal of Development Studies*, 48:4, 481-497, DOI: 10.1080/00220388.2011.615922
- Khongtong, J., Ab Karim, S., Othman, M., & Bolong, J. (2014). Consumption pattern and consumers' opinion toward street food in Nakhon Si Thammarat Province, Thailand. *International Food Research Journal*, 21(1): 125-130.
- KNBS. (2019). Kenya 2019 Census statistics. KNBS
- Kraig, B., & Sen, C. T. (eds.). (2013). Street food around the world: An encyclopedia of food and Culture. California: ABC-CLIO.
- Moussavi, P., Liguori, K., & Mehta, K. (2016). Street Foods in Central Kenya: Actors, Trends, and Opportunities. *International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship*, 11(2): 87. DOI: 10.24908/ijse.v11i2.6411
- Muhonja, F., & Kimathi, G. K. (2014). Assessment of Hygienic and Food Handling Practices among Street Food Vendors in Nakuru Town in Kenya. *Science Journal of Public Health*, 2(6): 554-559. DOI: 10.11648/j.sjph.20140206.19
- Muinde, O. K., & Kuria, E. (2005). Hygienic and sanitary practices of vendors of street foods in Nairobi, Kenya. *African Journal of Food, Agriculture, Nutrition and Development*, 5(1): 1-14.DOI:10.18697/ajfand.8.1060
- Mwangi, A. M. (2002). Nutritional, Hygienic and Socio-Economic Dimensions of Street Foods in Urban Areas: The Case Of Nairobi. Wageningen University (Doctoral Dissertation).
- Mwove, J., Imathiu, S., Orina, I., Karanja, P. (2020). Multinomial Logistic Regression Analysis of Factors Influencing Food Safety, Hygiene Awareness and Practices Among Street Food Vendors in Kiambu County, Kenya. *Current Research in Nutrition and Food Science*; 8(3). DOI: 10.12944/CRNFSJ.8.3.26
- Njaya, T. (2014). Operations of Street Food Vendors and Their Impact on Sustainable Urban Life in High Density Suburbs of Harare, in Zimbabwe. *Asian Journal of Economic Modelling*, 2(1), 18–31. <https://doi.org/10.18488/journal.8.2014.21.1> 8.31

- Riet, V. H. (2002). The role of street foods in the diet of low-income urban residents, the case of Nairobi. Wageningen University (Doctoral dissertation, Dissertation).
- Sassen, S. (1997) *Informalisation in Advanced Market Economies; Issues in Development Discussion Paper 20*; International Labour Office: Geneva, Switzerland; Available online: <https://shorturl.at/ceiqB> (accessed on 28 November 2023).
- Silverman, D., & Marvasti, A. (2008). *Doing Qualitative Research. A Comprehensive Guide*. California: SAGE Publication Inc.
- Sun, Y., Liguori, K., Moussavi, P., & Mehta, K. (2015). Piloting a Healthy Street Food Venture in Kenya: Lessons Learned. *Procedia Engineering*, 107, 417–426. DOI: 10.1016/j.proeng.2015.06.100
- Williams, C. C. (2015). Explaining the Informal Economy: An Exploratory Evaluation of Competing Perspectives. *Relations Industrielles / Industrial Relations*, 70(4), 741–765.
<http://www.jstor.org/stable/24641929>.