

**CONTRIBUTION OF SMALLHOLDER INFORMAL MARKETS ON RURAL
VEGETABLE VENDORS' HOUSEHOLDS' LIVELIHOOD IN NYANDO SUB
COUNTY, KISUMU COUNTY, KENYA**

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MARCH, 2023

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DEDICATION

I would like to dedicate this thesis to my late friend and Husband-Pastor Joe Kimko Orleale, my daughter Josephine Kimko and my Son Komfort Kimko, for their words of encouragement and support in my studies

To my mother Janet and all my siblings who prayed for me and encouraged me to complete my study.

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ABSTRACT

Smallholder informal markets sector is a critical part of rural households' livelihoods to millions of people and national well-being at large, particularly in developing countries. Vegetable vending, is an important avenue that contributes to for poor women to support their families. However, there is paucity of literature on how the smallholder informal markets contribute on rural vegetable vendors' households' livelihoods, forms the basis of this study. The objectives of the study were to assess the contribution of smallholder informal markets on rural vegetable vendors' households' livelihoods in Kisumu county, Kenya. The specific objectives of the study included: assessment of contribution of smallholder informal markets on income levels; food availability; well-being and vulnerability of street vegetable vendors' households' in Nyando Sub County, Kisumu County, Kenya. The study population consisted of street vegetable vendors from Ahero, Kochogo and Ayweyo smallholder informal markets in Nyando Sub County, Kisumu county. The purposive sampling technique was used to draw the sample from a pool of vendors in the food systems. A mixed sampling technique was used to identify the markets and street vegetable vendors who were the respondents to the questionnaires. The target population of the study was 61 street vegetable vendors (census). A pilot study was carried out at Otho market, whereby the questionnaire was administered to 8 vegetable vendors both during the pre-testing and re-testing of the research tools for consistency and validation. A structured questionnaire was used to interview the street vegetable vendors while an in-depth interview using key informant schedules was used to generate information from the Key Informants. Data collected by use of KIIs was reported as quotes. Data was collected, cleaned, coded and keyed into the SPSS application and analyzed. Descriptive statistics was used for quantitative data analysis to calculate the averages, means, percentage and frequencies. The results from the analysis indicated that the informal market was dominated by women 95%. The smallholder informal markets contributed positively on vegetable vendors' households' incomes, food availability, employment and general satisfaction received by the household members. Nevertheless, these street vendors also experienced environmental, physical and health risks factors that disrupted their businesses. Findings also revealed that vegetable vending was a major source of income among the majority (67%) of the vendors' households. The vendors averagely earned KES. 300 daily from the vegetable vending business and spends between KES. 150-200 daily. The findings revealed that vegetable vendors were able to increase food availability, and meet their household dietary needs. However, due to illegal operation of businesses, they also experienced loss of business through eviction or confiscation of goods. The study concluded that smallholder informal markets of vegetable vendors positively contributed to vegetable vendors' households' livelihoods, an alternative form of employment for vulnerable households. The study contributed to scholarly publication and to paucity of empirical evidence that was related to the contribution of smallholder informal markets on vegetable vendors' households' livelihoods in Nyando SUB County, Kisumu County, Kenya. The information generated will be incorporated in the County integrated planning document to guide the county governments in future planning for her towns and cities knowing that informal markets are economic activities that create employment, provide food and income for rural households.

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LIST OF ABBREVIATIONS

AU	:	African Union
COMESA	:	Common market for Eastern and Southern Africa
GATT	:	General Agreement of Trade and Tariff
ILO	:	International Labour Organization
IMF	:	International Monetary Fund
MNCs	:	Multinational corporations
R&D	:	Research and Development
SMEs	:	Small and Micro Enterprises
SAPs	:	Structural Adjustment Programs
WB	:	World Bank
WTO	:	World Trade Organization
UN	:	United Nations
OECD	:	Overseas Economic Corporation Development

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Smallholder informal marketplaces are crucial as a source of income for rural households worldwide. Despite the lack of legal operating regulations, informal market hawking is a common practice in developing nations (Verma & Kumar Misra, 2021). Many research have examined a range of drivers and factors that influence the income levels of vegetable vendors, but the results have revealed a paucity of data. Yet, growing vegetables is a crucial part of agricultural diversification methods and offers a potential economic prospect for alleviating rural poverty and unemployment in emerging nations. Besides, being a source of vitamins and minerals needed for good health, Vegetables are mankind's most affordable commodity. To enhance a promising economic opportunity, a number of key factors must be put in place hence higher yields leading to more market opportunities (Soumya Gupta et.al (2020). According to Antwi and Seahlodi (2011), the success of vegetable growers (operation and decision) depend on market availability, accessibility, and affordability.

For Racchi, S. (2021), informal market vending contributed in a positive manner to the provision of merchandised and ventures that were meant for the low-income earners, hence improving household food availability. The vendors have consistently played an essential part of many economies of the world in achieving food security. Food unavailability denoted the access, quantity, and consumption of a wide variety of foodstuff that consisted of a balanced diet. Smallholder informal markets were defined as those with diversified economic activities which included, individual jobs, providing

economic services paid daily such as self-employment. They were also unregistered business protected but were not regulated by the state laws. The smallholder Informal markets were not required to much of academic skills but they needed a small amount of capital to start their businesses. The smallholder informal markets mainly comprised of both food and non-food business aiming on improving household livelihood. The concept of informal market vending was one of the components of the urban informal economy (Uwitije, 2016).

The informal market is made up of a set of production players who work in the households' sector and represent the unincorporated businesses controlled by the adult household members. Size: small-scale, self-employment or under five employees who are either household members or casual employees; typically not registered under national law (often national law exempts these businesses from registration requirements); and lack of separation between household and business assets finances are important aspects of this definition (Leandro et al. 2019). Throughout the 1950s and 1960s, it was commonly believed that underdeveloped traditional economies might become vibrant modern economies with the appropriate combination of economic policies and resources. In addition to being one way to make a livelihood in the face of rising poverty, vending is also thought to have a significant positive impact on reducing urban unemployment and poverty (Constantine et al. 2022). Yet, informal market economies typically operate outside of the existing official legal system and are characterized by zoning code violations, labor code violations, and unpaid taxes.

According to Holness (2019), the smallholder informal market is roughly defined as an economic activity that supports the most disadvantaged members of society through farming operations that are not subject to government regulation or taxation. The informal economy in rural areas is chaotic and multifaceted; while some operations are categorized as unlawful, they are frequently based on customary resource and land rights (Henderson, 2017). Street vending is distinguished by low income levels, simplicity of entrance, and self-employment of individuals participating. They are an active contributor to economic growth and higher earnings at the level of villages, towns, and cities. Smallholder informal markets are inherently related to formal markets though thrives even with little skills, because they both focus on household livelihoods than country economic development. Hence, everybody needs to be better off in the growth of smallholder informal markets which economically becomes very critical part of life in the rural area transformation of knowledge and poverty reduction (Butcher and Verayutham, 2019).

Informal markets were economic entities with a profit motive even at its lowest operation level

Although smallholder economies in the agricultural and retail sectors have frequently been acknowledged as essential to development over time, they have rarely benefited from the policy and institutional support that was deemed necessary for the success of smallholder economic actors and rural economies (Fan & Rue, 2020). The ability of the informal sector to provide employment to the bulk of the jobless as well as to a country's

larger economic development agenda would be unlocked with a willingness to regard smallholder informal economies as a viable business opportunity.

In Europe countries such as Tajistan, Ukraine, and Uzbekistan, there was increasing trends of current technology in conducting smallholder informal markets among countries that have led to providing services to high demand level and earning higher incomes by the actors in the informal sector. This happened during economic transformation phases that were anchored on the trade and liberalization policy that was rolled out by the World Bank and International Monetary Fund in the bid to protect the developing countries for debts (Austin, 2014). Smallholder informal markets owner stated that they were diminishing in importance as agriculture and non-agricultural sectors were becoming increasingly important as part of informal markets continuum, and they were economically and socially important during key transformation phases (Strydom et al. 2017).

In Asia, countries such as India, the history of economic development suggested that the importance of smallholder informal markets, improved household livelihood from agriculture activities and non-agricultural sectors (Bhowmik, 2012). Smallholder informal market (informal sector or grey economy) was the part of any economy that was neither taxed nor monitored by any form of government. It was considered sustainable when it coped with environmental adversities and recovered from the stresses and shocks. The sector maintained its capabilities and assets both now and in the future while not undermining anybody in the country (Vanek, 2014).

In Kenya, Nairobi city, 30,000 food vendors' trade in the informal markets along the street on public areas (KENASVIT, 2018). Informal markets made at least 80% of the people support their household livelihood from street businesses. This was because the evolution of the informal markets for households who could find employment were intrinsically related to the process of household livelihoods. The informal sector was an automatic opportunity for farming households during off-seasons especially for women who needed flexible work time. At the level of communities, towns, and cities, they were a vibrant part of the economy, creating economic growth and increased incomes (Bromley, 2019).

Informal economy as a world employment phenomenon, the United States as a country also benefited her people. In Burlington City, most of markets were on the retail trade sector, smallholder informal markets range from; oil-seed pressing, vegetable vending, furniture making, cooking of food on the streets or service provision such as shoes repairs and laundry (Banik, 2017). Smallholder informal markets are more potential for low cost consumer durables and services. Rural population largely depends on agriculture and it could contribute nearly 50% to total national income. The rural households played a greater role in smallholder informal markets. The proceeds obtained improved the agricultural sector and boosted the whole economy of the countries in Sub-Saharan Africa substantially (Weng, 2015).

African countries such Egypt, Senegal and Ghana most of the populations relied heavily on informal markets for their living standards. Smallholder informal markets owners sold their goods and services to households or individuals along the road, not to other

businesses which were on the streets. As countries develop, in Ghana, smallholder's informal market become more organised as wage employment (formal and informal) in modern enterprises. The differences in informal markets between countries could be significant, and often reflect differences in the stages of development across countries (Asiedu and Agyeimensah, 2018). In those illustrations, there was no conclusive evidence that smallholder informal markets were considered on enhancement of rural households' livelihoods.

As countries developed, smallholder informal markets became less common, and earned wage employment (formal and informal) in modern enterprises became more common (Jhabvala, Sudarshan and Unni, 2013). In low- and middle-income Asia, informal markets accounted for 26% of reported hours worked by the vendors, and in America only 20%. According to International labor organizations, seeking a "formalization" of the informal markets were considered in many national and local governments fora with the conviction that they would like to see informal household enterprises vanish from public spaces. However, Jongen (2012) believe that such a development would be disastrous, and calls for informal-sector-friendly policies. Smallholder informal market had a range of businesses pulling all factors of production together with account for informal markets existence and growth in rural areas. As on-farm incomes from the informal sector increased, rural household demanded increased variation of a wide range of non-farm goods and services which informal markets conveniently supplied (Jongen, 2012).

In the Philippines, where 100 million people reside in rural regions and many are destitute, smallholder informal marketplaces contributed more than half of the country's economic activities. Poor people in rural families, the majority of whom relied on subsistence farming and fishing for a living, relied on the smallholder informal market as their main and sometimes only source of income. Many rural communities have substantial issues with poverty, illiteracy, unemployment, homelessness, crime, social ills, inferior living standards, and a lack of amenities, services, and health care, according to a literature study (Chandle, 2012).

Smallholder informal markets had similar problems in rural areas, such as low productivity, underinvestment in rural agriculture and non-farm employment, inadequate infrastructure, poor working conditions and occupational safety, as well as limited or no access to services, including financial services. They include, usually in rural or underdeveloped regions, street vendors, laundromats, and food and flea markets. As these enterprises were seldom registered at the national or regional levels, their payments were made in cash and therefore they did not pay taxes, and they often did not have official employment agreements with their employees in Zimbabwe, it was deemed informal (Gibbon, 2015).

According to Fonchingong (2015), factors relating to the economic backdrop, the legal, regulatory, and policy frameworks are among the underlying causes of informality. At the micro level, Beijing considered elements like illiteracy, prejudice, poverty, and, as previously indicated, a lack of access to financial services, real estate, and other resources as causes. Additional variables that were thought to contribute to market disorder

included varieties of vending such as street vendors, market vendors, Pedi taxi and tricycle drivers, small construction workers, and home-based businesses.

Holness (2019) described the smallholder informal markets broadly as economic activity that attracted tourism. Yet, because the operations of the informal sector are not subject to government control or taxation, the government is deprived of cash that could be used to fund programs and offer social security to the most vulnerable sections of society. In Senegal, informal markets produced 90% of job possibilities in sub-Saharan Africa, whilst in certain other nations, they made up as much as 38% of GDP. In the majority of rural regions, the informal economy supported the poor population's way of life through land-based and resource-based economic activities including farming, forestry, and mining. Nonetheless, the rural informal economy was and is generally described as chaotic and complex. The economic activities were and are categorized as unlawful despite the fact that they are frequently anchored in legitimate business, in traditional resources and land rights (Henderson, 2017).

Employment in the informal markets', vendors of meat in South Africa growth was almost entirely as a result of household creation of new businesses (Karaan, 2013). Ninety percent (90%) of African informal markets entirely depended on family members to provide labour by working in the businesses. Ninety-five per cent (95%) never increased their employment opportunities over the life of their business. In other words, those were not growth-oriented enterprise and were termed as gazelles; they did not outgrow the micro informal markets business model. While informal markets clearly offer employment opportunities for increased household incomes and consumption, they are

nonetheless a precarious livelihood option. The vendors often overcome trade threats and challenges associated with loss of their businesses as the demand for their goods and services is high both in the rural and urban areas, this is because the informal markets depend on other rural / urban households' income for demand for their products. This means that any economic shock, a natural disaster, an economic downturn, a global pandemic hits informal markets very hard (Srinkata, 2017).

Most of smallholder informal market recover quickly due to their low investment rate that allow them trade in small quantities in meeting their customers demand as opposed to large super markets. They offer products in small quantities at an affordable price, displayed at convenient places or near the owner's home in a high populated area and or along a busy road with many pedestrians after work hours and sell goods in small quantities such as a cigarette, egg, tomato, 1/8Kg of sugar, for poorer households with limited cash. Households have few other opportunities in rural areas to diversify their income sources, as non-farm wage jobs are scarce and often low-paid, however, the vendors often take advantage of vending off-hours and dedicate part of their labour to farm work. (Kwame, 2014).

In sub-Saharan Africa, the population growth rate is high, yet the economic growth is low and both contributed to the lowering of the per capita GDP, as well as high unemployment (World Bank. 2017). Literature further indicated that developing countries, especially in Sub Saharan Africa, 67% of their employment was dependent on the smallholder informal markets. In Kenya, the informal economy employed over 80% of the productive labour force. The decline in the agricultural sector left the rural

households' having no other opportunities to support their livelihoods except shift their productive labour force to the smallholder informal markets, for alternative households income (ILO, 2018).

The vulnerable rural households' members included the women and youth and poor rural household population, whose characteristics included; low literacy, low access to productive assets and are young, they had a common drive of providing for the basic needs of a family (Weng, 2015). The majority of population of the smallholder farmers lacked capacities to join formal employment, and were suited to participate in the smallholder informal markets. Those markets provided those households with easy entry requirements such as easy entry and exit, low investment levels for starting the micro and small-scale enterprises and choice of location. Those smallholder informal markets helped the vulnerable rural households in addressing their poverty issues that they found themselves in such as: inadequate income, unemployment and food insecurity. Those rural households initiated the micro and small-scale economic activities that were situated near their homes or along the roadsides and pavements (Sylvain, 2018). But they balanced their economy by continuing with the utilization and of extraction of the natural resources, farming as well as devoting some of their productive labour force hours in participating in the smallholder informal market (Cichello & Rogan, 2017).

The informal market included several activities such as food systems (cereals, and vegetable), hair salons and barber shops, grocery and subsistence producers. The majority of the impoverished rural households in western Kenya participating in the smallholder informal markets were involved in the food system enterprises (Loison, 2015).

The vegetable vendors were part of the food system whose produce of trade was vegetables, this enterprise required small parcels of land and minimal use of farm inputs and therefore, favoured the majority of the women who drew their livelihoods from those enterprises. Regardless of the opportunities presented by the smallholder informal markets, governments around the world still turned a blind eye to challenges that faced the rural households who participated in the smallholder informal markets and especially the ones at the very bottom of the pyramid. In developing countries, they applied the post-colonial rigid laws to govern the use of public spaces where most of the rural population transacted their informal businesses. The poor rural households' average daily income worldwide was estimated to be less than 1 USD (ILO, 2018).

The low income was an indicator that they lacked capacity and time to engage in lengthy registration procedures that were required to legalize the micro and small enterprises. Conflict on illegal use of public space between government and the rural households participating in the smallholder informal market were caused by weak and non-existence governance which had negative effects on those households' livelihoods (UN-HABITAT, 2019). Therefore, the government needed to be proactive in the establishment of the social platforms for addressing the challenges that were emanating from the informal economy and the reviewing of policies that would guide the smallholder informal markets social economic activities for rural household's survival and creation of employment opportunities.

The informal market was indeed a giant employer in many countries spread across the world. The significance of their contribution worldwide was expressed in percentages as

follows: Africa (85.8), Arab states (68.6), Asia, specifically Pacific Island (68.2), Americas (40), Europe and Central Asia (25.1). The data on worldwide informal employment was further desegregated by gender and rated as follows: 63% were men and 58.1% were female.

The United States of America's (USA), informal workforce was estimated to be between 30 to 40 % (International Labour Office, 2002). In the USA, informal employment exists at all socio-economic levels, providing opportunities to immigrants, middle-class workers but more pronounced among the poor households (Mariano Bosh and Lidia Farre, 2013: Tanzi, 1999; Houseman and Osawa, 2003).

The Asia-Pacific region's informal market accounted for approximately 60% of non-farm employment while in India it accounted for 90% of the workforce (ILO, 2002, 17). The 68th National Sample Survey that was conducted in India, indicated that out of 472 million people who were in needed for the economic activities to support their families, only 48 million which was 10% of the population could access the formal employment (ILO, 2011/12).

In some countries in Africa, smallholder informal market contributed to the growth of the informal economic activities that enabled the common people in the rural households to increase their earning ad improve their living standards; it created employment opportunities and also contributed to poverty reduction, cushioning families against the adverse effects of risks and shocks that were exacerbated by extreme poverty (Rogan and Cichello, 2017). In Sub-Saharan Africa, 66% of the population that was affected by low agricultural production having suffered from unemployment, but instead choose to

participate in one form of informal employment (UN Statistics Division, 2015). The active population in each country migrated their active labor force to the smallholder informal markets, varying in percentage were as follows: South Africa (33), Namibia (44), Mali (82), and Tanzania (76) (Vanek et al. 2014); West Africa-Niamey (76), Lome (83) (Herrera et al. 2012); and Kenya (83.1) (Kenya National Bureau of Statistics, 2017).

Kenya as a developing country had 75 percent of her population living in the rural areas and practice subsistence farming (Jayne et al. 2017). The agricultural sector in the last two decades had been characterized by land fragmentation, climate change, low agricultural productivity and food insecurity (Bryan et al. 2011). The poverty rate in Kenya was rated at 48% in 1982, and had gradually increased to 56% in 2003 (Omamo, 1998). The increasing poverty levels in the rural areas contributed to rural households' participation in the smallholder informal markets in search for better incomes (FAO, 2018). The smallholder informal markets had provided room for rural households to engage in micro and small-scale economic activities thus creating employment opportunities for them (Muzaffar et al. 2009; McCaig et al. 2015).

People in Kenya believed that the smallholder informal market operated mostly in rural regions, provided chances to enhance income and minimize seasonal underemployment, and offered a strategy for utilizing the underutilized human resources (Muiruri, 2010). Although while secondary education is becoming more widely accessible, rural Africa only provided a small number of options for those with this level of education, except from a few occupations in the public sector (teachers, health professionals, or agricultural extension and assistance). In smallholder informal markets owners were people who had

mainly primary and a small percentage had secondary education as the highest level in the academic achievement. The informal markets offered majority of the low literacy households in Kenya who were unemployed an opportunity for independence of earning their income by themselves, yet these earnings were harder for male family members to appropriate (Mallik, 2019).

The economists assert that urban planners and decision-makers would criticize informal marketplaces, frequently labeling them as a sign of a failed development strategy (Munro, 2011). This tendency persisted in many African nations, particularly in the major cities, such as the capital, where municipal and national administrations want to create "world class cities." According to this viewpoint, capital cities should be well-kept, with no open holes or sidewalks, and markets should be constructed with proper roofing that would shield them from weather hazards at all times. This would allow informal markets to operate and enable the sale of goods, the provision of services, and the preparation and serving of food. There were to be no small-scale bars created out of shipping containers, no motorcycles, bicycles or rickshaws offering rides but instead have an organised transport system; All the unlicensed businesses such as; barbers, hair-cutters, and manicurists working from home would be required to legalize their businesses. The waste management by scavengers and self-styled entrepreneurs would have policy guide for Advocates of this position want to "clean-up and clean out" the informal sector (Nkululeko 2014). They often advocate "formalization", a term which has various meanings.

There was no question that if favorable local governments did not assist informal businesses, congestion and hygienic issues may result. Nonetheless, initiatives to manage, curtail, or even abolish this industry to lessen the destitution of the households that owned and ran such firms (or want to open one). In places where low- and middle-income earners and countries operated, there simply weren't enough alternatives in the income-earning options. Rather, the national and local governments implemented development strategies based on post-colonial laws and programs that endangered the existence and expansion of this industry and were incorporated into a national development vision and plan. According to such a development plan, more and more productive firms had to be created in order to comprehend economic growth and improve infrastructure and amenities. The carriers of that vision were to be the contemporary labor-intensive businesses that provided solid, formal, wage and salary employment, but until there were enough of these businesses to employ the bulk of the labor population, "informal will be normal." Also, it suggested that it was time to acknowledge informal markets for what they were rather than what they weren't (Adhikari, 2011).

Rural household livelihood increased productivity from informal markets that contributed towards their economic growth. This was accomplished through lowering the cost of staple goods as well as by increasing the demand for labor in rural regions, which led to the creation of employment for low-income households and a rise in the wage rate for unskilled labor. Yet, smallholder farmers face significant obstacles in today's sophisticated marketplaces (Amin, 2015). The development of supermarkets in the developing world, which provided new options for smallholder farmers, was the best indicator of commercialization and the alteration of the food supply chains. But were also

a means of excluding them from lucrative marketplaces and rendering them non-viable economic entities (Arjun, 2018).

The majority of farmers in the nation are subsistence farmers who depend on 2-hectare farms, and all of Kenya's arable land has been exploited. Yet, in practice, these farms were tiny and sometimes unable to feed a whole family, much alone offer any useful data for a comparison of other countries (Bunjun, 2012). The ability to grasp the many stages of structural change, the process that involved productivity growth and rural income rises, rural to urban migration, and the percentage of GDP and employment, are all made possible by having a wide range of vegetable options (Pasquini, 2019).

Recaud (2018) argued that the formalization of programs overlooked the informal market and economy's flexibility and dynamism in lowering entry barriers and acting as a buffer for these disadvantaged communities against market downturns. So, the policy intervention was crucial to comprehending the intricate dynamics of the rural informal sector, especially how elements like customary rights, insufficient laws, and economic rewards may encourage informality and have an impact on livelihoods (Thiga, 2013). Researchers and practitioners were encouraged to address the rural informal market economy, in particular its drivers and effects on livelihoods in the agricultural, forestry, and mining sectors in sub-Saharan Africa, through research on informal markets (Chapoto, Mabiso & Bonsu, 2013).

Due to the high registration fees, onerous administrative requirements, and corruption, certain participants in the formal sector may have been prohibited by government rules and regulations (Chen, Roever & Skinner, 2016). As micro-firms did not generate enough

revenue to cover these expenses and instead took advantage of formal institutions, smallholder farmers, chainsaw loggers, and artisanal miners were justified in turning to informality (Abigael, Elizabeth & Samman, 2018). But, when the governing elites amassed resources, gained access to productive assets, and actively marginalized other groups, exclusion also happened along class and racial lines. Due to the poor quality of the services offered by the state and its institutions, informal economic participants—whether or not they were excluded by regulations—may nonetheless have chosen to leave the formal domain (Strydom, 2017). Regulation was another cause for informality in the rural economy (World Bank Group, 2018). According to Yeboah and Jayne, (2015) informal markets in sub-Saharan Africa played out a role on livelihood. Smallholder informal markets continued to be a widespread economy. More people from the rural households began to more than two jobs, combining the farmers with vending and linking their farms produce to the informal markets, preferring the urban markets. Ugandan farmers, for example, were selling some or all of their produce either in markets or to traders in 2005 (IFAD, 2011).

Small-scale vegetable growers sold their goods to unofficial merchants, who then sold it to customers at small-scale informal food markets, supermarkets, or in some cases, export businesses. When product from smallholder informal marketplaces enters the food supply chain for export, such sellers have essentially "legalized" themselves by joining the official economy's food supply chain. In the official sector, contracted farmers have also been known to participate in social and economic activities in the informal market. For a variety of reasons, the vegetable merchants decided to operate in the unofficial

marketplaces by smuggling part of their goods to buyers there (Simopoulos & Bhati, 2014).

Informal markets had norms that generated trust and social license for mutual co-existence to facilitate the people who operated in the informal markets to work smoothly and enjoy mutual relationships for posterity among informal producers and traders. In the informal market, trust derived from social capital serves as an efficient control mechanism (Soon, Jean, and Tan, 2019). Each harvest season, a sophisticated community organization structure develops for Ugandan matoke (cooking bananas). By their social connections, producers and sellers synchronize their pricing, sales volumes, and the locations of informal trade hubs. Vegetable vendors were smallholders generally able to create and shape the informal market, there were no policies or rules in the informal economy, making them resilient and autonomous economic actors. For rural farmers growing their vegetables on their customary lands, informal farming (without permits or tax declarations) was at least equally, if not more, legitimate than state-sanctioned production actors (Rapsomanikis, 2015).

Smallholders' use of both informal and formal trading tactics was exemplified by pervasive side-selling (Scheinkman, 2017). Farmers were continually evaluated to ascertain the advantages and disadvantages of informal and formal operations, as well as the potential inclusion of other informal sectors of the two, in order to make "markets operate in their favor." Studies have shown that farmers may purposefully disobey the new laws as a way to rebel against the bureaucracy that the government imposes in instances when land reforms, modifying their business allocation, or other policy changes

in Ghana were perceived as unfair and without local engagement (Calogero, Savstano and Zezza, 2013).

Surveys also reveal that women, who make up a significant share of rural vegetable vendors, are usually underrepresented in rural unions and cooperatives. The producers' organizations or cooperatives, which are the most prevalent type of vegetable, face serious problems to the social structure and power dynamics that are now prevalent among communities (Henderson 2011). In smallholder agriculture, economic pressures are a major influence behind informality. Rural farmers' incomes may be reduced by low global agricultural commodity prices, which may push contract farmers to look for alternate sources of income or participate in side-selling (Alter and Martha, 2017).

The bigger profit margin is a major factor in why rural farmers choose informal trading over official commerce. In addition to putting more money in rural farmers' wallets (as informal traders offer higher prices), side-selling also helps them get through obstacles like high payback rates and the lack of knowledge about purchase prices until harvest (Spartz, 2013). According to estimates, the informal sector consists of a variety of economic movements, commercial companies, and people who are not supported or protected by the state. The idea was first used to describe modest, unregistered businesses where people worked for themselves. It had been extended to cover pay work in unprotected positions.

The informal economy was supported the livelihoods of at least 2 billion people and directly employed more than 61% of the world's employable population (Karine, 2014). In the developing economies, especially in Sub Saharan Africa, most rural households

depended on; extraction and utilization of the natural resources, they carried out small and micro enterprises in the food systems such as sale of vegetables and ready to eat foods, metal work carpentry and selling of second-hand clothes in the informal markets for their livelihoods (Gerxhani, 2019).

In the rural areas, smallholder informal markets originated from the agriculture sector when the farms could no longer support the population that depended on it. The smallholder informal markets for the vegetable vendors sold farm produce but conducted their vending activities in the form of farming enterprises. This was the main occupation and source of food, which supported over 75 percent of the rural population. Yet currently, in the past few decades, smallholder farmers had experienced low agricultural productivity due to several factors that affected the sector such as: increased population, land fragmentation and climate change which have made these households impoverished (Fonchingong, 2015). The changes in agricultural productivity was an indicator that more rural households were beginning to experience food shortage hence their increased participation in the smallholder informal markets for survival (Grant, 2014).

Kenya national bureau of statistics indicated that Kenyans heavily depended on the informal sectors and generated 83.66% of gross domestic product in the year 2018 while 33.2% in the formal employment in the year 2015. In the year 2020, COVID 19 affected smallholder informal markets both in supply of goods and services to meet market demand to the informal economy. The concern of improving the rural household livelihood was overwhelming as the trading activities in the informal markets and partnering to other East African communities faced several trade barriers. The restriction

were put in place to protect the traders and stakeholders' health while observing the social welfare of the people from the formal sectors operating in the informal areas. The supply chain was constrained in the market through production, distributions and marketing products to the informal markets on household livelihood. These indicated that most of our populations feared loss of income and this attribute led to the bid by the people to spend little money which later reduced household demand, this was however, where the smallholder informal markets provided the rural households with alternative income option included were the those people from the formal sector who had lost employment and were engaging in other sources of income. Most businesses were given freedom from fiscal and monetary policies such as social insurance, and tax exemptions in order to enhance rural household livelihoods.

The constraint of informal markets was identified in the open air markets where some of the informal market workers were employed hence, a clear indication that smallholder informal markets could be researched and put into practice of improving rural household livelihood. There were increased cash transfers for funding on the targeted marginalized individuals by taking measures of improving household demands. This was aimed at promoting informal market workforce and their small businesses during pandemic period. Despite the association of many researchers' ideas about smallholder informal markets, rural household livelihood remained the major issue of concern in the Kisumu County, Kenya, because of them having concentrated on farming activities whose food supply could not support the members of the households let alone meeting other daily basic needs required.

75% of the population depend on farming and farm related activities that directly/indirectly contributes to 51% of Kenya's GDP (World Bank, 2018, p.35).

1.2 Statement of the Problem

There exists a large amount of literature on food systems in the sub-sector of cereals and legumes which are the staple foods. But there is paucity of literature on vegetable vending which is also an emerging sub-sector in the food system economic activities. Some research studies by Bajada and Schneider (2018), Peters (2017), Ngui et al. (2014) indicated that literature on food sub – system such as cereals and grains was moderately available but there was paucity of literature on the contribution of smallholder informal markets on vegetable vendors' households' livelihoods. Information on vegetable vending where a majority of women from rural households' stream from their homes every afternoon to engage in economic activities to supplement their household income is lacking. This has prompted the need to carry out a research study in assessing the contribution of smallholder informal markets on rural households of vegetable vendors on households' livelihoods in Ahero ward, Nyando sub-county, Kisumu county, Kenya.

1.3 Broad Objective

To examine the contribution of smallholder informal markets on rural vegetable vendors' households' livelihoods in Nyando Sub County, Kisumu County, Kenya

1.3.1 Specific Objectives

The study will be guided by the following specific objectives:

- i. To assess the contribution of smallholder informal markets on income levels of vegetable vendors' households' in Ahero ward, Nyando sub- County, Kenya

- ii. To evaluate the contributions of smallholder informal markets on food availability of vegetable vendors' households' in Ahero ward, Nyando sub- County, Kenya.
- iii. To investigate contribution of smallholder informal markets on the well-being of vegetable vendors' households' in Ahero ward, Nyando sub- County, Kenya.
- iv. To assess the hazardous factors within the smallholder informal market and their contribution to the vulnerability of vegetable vendors' households' in Ahero ward, Nyando sub- County, Kenya.

1.4 Research Questions

- i. How does smallholder informal markets influence income levels of vegetable vendors' households' in Ahero ward, Nyando sub- County, Kenya?
- ii. How do smallholder informal markets contribute to food availability of vegetable vendors' households' in Ahero ward, Nyando sub- County, Kenya?
- iii. What was the contribution of smallholder informal markets on well-being of vegetable vendors' households' in Ahero ward, Nyando sub- County, Kenya?
- iv. How did the smallholder informal market contribute vulnerability risks of vegetable vendors' households' in Ahero ward, Nyando sub- County, Kenya?

1.5 Significance of the Study

The empirical data provided information on the demographic characteristics of the households of vegetable vendors, the socio-economic importance of these markets on rural households of vegetable vendors. The literature reviews further guided on how National and County governments would review policies that would be termed friendly and implementable. The findings provided understanding on the contributions that the

smallholder informal markets made to rural vegetable households livelihoods in terms of; income, food availability, quantity and quality, and employment opportunities that emanate from vending activities. The results informs the local authorities, financial institutions and development partners on opportunities that exists with vegetable enterprise. There was a positive increase in rural vegetable vendors' household income levels, food availability quantity and quality, employment opportunities while risks emanated from lack of favourable polices, temporary and inadequate infrastructures, inadequate water supply and environmental pollution. The contribution received from the smallholder informal markets on street vegetable vendors' livelihoods will inform the Kisumu County Integrated Development plan of 2022-2023 on the importance of street vending activities and the need for them to be included in the county's town development plan. The research information has contributed to scholarly publications.

1.6 Scope of the Study

The study on contribution of small holder informal markets on rural vegetable vendors' households' livelihoods' was carried out in Nyando sub county, Ahero and East Kano/Wawidhi B, wards, Kisumu County, Kenya. Purposive Selection of smallholder informal markets were identified within the environs of Ahero market (Ahero, Ayweyo and Kochogo) that vegetable vendors operated daily. The respondents to the study were vegetable vendors, a component of food system in the informal sector. There literature review on vegetable vending households indicated that there was scanty information on informal markets and vegetable vending as compared to cereals and grains which has been researched on. The study assessed the contributions smallholder informal markets on households' incomes, food availability and well-being (creation of jobs, accrued

household social economic benefits) as well as assess the household vulnerability and risks experienced while operating the business based on work environment. The study employed descriptive survey research design to obtain information from 61 street vegetable vendors who constituted the whole the target population, for in-depth information, Key Informant interview (KII) and Focus Group Discussions (FGDs) were also conducted. The data obtained from the study was cleaned entered into Excel sheet and exported to SPSS, a statistical software for further analysis. Descriptive analysis was performed in determining means, percentages, frequencies. Likert scales were used to rank satisfaction positivity levels and perception.

1.7 Limitation of Study

The study was carried out in the three markets selected in Nyando Sub county and the whole population of the street vegetable vendors was selected for the study (census). The street vegetable vendors represented the target population for the research. The limitation to the study included: time constraint was real as most vendors operated between 2.00 p.m. to 8.00 p.m. The scramble for work space, coupled with the rush to attract customers by the vendors. Advertising their products by word of mouth as they projected their voices to call customers, all required cooperation and patience as the interviews were interrupted many times. Some of the interviewees expected payment for their for their time and explanations on why the survey was continuous..

The culture of handout in exchange for information was the case with interviewees, patience was exercised to get the right information.

The street vegetable vendors were suspicious that the information they were giving could be used against them in helping the government to further harass them and demand for taxes.

The separations of the owners' investment and family assets by vendors was difficult. Therefore incomes and expenditures were based on daily averages

For future surveys, the researcher will consider ethnographic studies to help in following up the same target sample over a period of time in obtaining information through observation and interviews and recording. The generated information would help in triangulating information obtained from quantitative survey KIIs on household income levels and food availability impetus

1.8 Operational Definition of Terms

Business partners:

These were credit provider, suppliers of good, middlemen, whole sellers, retailers, / vendors', transporters and customers.

Customers:

These were buyers of vegetable at a given price, this happened when the buyer perceived the product as satisfying and continued with repeat purchases.

Development:

The rural households' engagement in the smallholder informal markets, a sub-set of the informal sector contributed to vegetable vendors' households' livelihoods. The micro-economic activities were envisioned to contribute to Kenya's vision 2030 in reducing poverty levels and create employment in the country.

Livelihood:

The term was used to refer to the social economic opportunities that was used to supports households basic needs. The households resources and assets were used to contribute to the social economic activities. The household livelihoods consisted of the incomes/savings, food supply in quantity and quality, employment, access to social and physical facilities for families.

Locality:

These include Ahero, Ayweyo and Kochogo markets in Nyando sub County, Kisumu County.

Markets activities:

The vegetable suppliers were both producers and sellers who traded in small and medium quantities that vegetable vendors purchased. The customers' demands in-term of packaging, price, quality was observed. The vendors used word of mouth and convenient access to promote their products and services. They sold their goods at lower prices than those sold in the formal markets while also engaging in home deliveries.

Middlemen:

These were market actors in the vegetable value chain that do not handle goods but the bring sellers and buyers together at a fee.

Participation:

Involvement of social economic networks in problem identification, prioritization, decision- making and implementation process, which occurs at different levels that allows community inclusivity in their affairs.

Poor rural households:

The term is used for households who an average daily income of 1\$ USD, or their incomes rotate around the 1 dollar. Their monthly incomes were equivalent of minimal wage as stipulated in the Kenya Gazette of KES. 7000 for a domestic worker or casual labourer.

Census:

The whole population of vegetable vendors from the three markets in Ahero, Awasi and Kochogo formed the study sample.

Government as Regulators of businesses:

The government fixed minimum charge per vendors and collected daily charges from informal businesses. They also provided security for all business actors.

Rural Household of vegetable vendors:

This refers to individuals living in the rural set-up who have migrated part of their active labor force in smallholder informal markets as street vegetable vendors to supplement household incomes.

Rural-Urban Distinction:

In the United Nations (UN) classification, towns of up to 20,000 inhabitants are considered rural. Rural towns thus serve as marketing and service centers for the rural economy.

Rural households' average income:

The sole proprietors are self –governing and therefore business owners and incomes generated from the business are not clearly separated. In this study, average daily vegetable vendors' household income levels were determined from daily sale by the respondents

Rural households' average expenditure:

The vegetable vendors' households purchase food stuff daily, assorted household food items such as cooking oil, salt soap among others. The average daily vegetable vendors' household expenditures is based on the requirements and this is financed by the profit generated from the vegetable vending business.

Secondary markets:

These were markets such as Ahero, Awasi, Katito, Sondu and Rabuor in Kisumu where the vegetable vendors could source for vegetables to both buy and sell. are local council markets

Smallholder informal markets:

This refers to economic activities that are unregistered and small in nature; providing informal employment to both rural and urban households. The workers were self-employed had no bank accounts and did not contribute to both the National social security fund and National Hospital Insurance Fund, nor pay taxes. Although their income was low, they were considered as tax evaders and therefore an economy termed “*as anti-development*”.

Social economic networks’ interactions:

Vegetable vendors’ interactions with suppliers of good, new entrants of vegetable vendors and vegetable supply, customers’ preferences, and competitors within the local markets.

Social networks:

These were the relationships that developed among the vegetable value chain as vegetable vendors connected with producers, suppliers, middlemen, transporters, government regulators and consumers.

Social psychology:

The vegetable street vendors’ relationship with vegetable value chain actors established their social economic networks that stipulated each actors’ role.

Individual actors benefitted accordingly, the credit provider earned an interest, suppliers received payments for goods sold, vendors received payment from customers who bought their goods, transporter payments for services provided and the local authorities received cess.

Socio-economic factors:

This included the understanding social economic characteristics such as gender, age, education level of the vegetable vendors. The vendors had low literacy level, the female were the dominant actors. The rural households were governed by a patriarchal system.

Street vending:

This is an economic activity that are income generating where individual traders offer goods and in this case they offer vegetables for sale in return for income. The actor in street vending for this study were vegetable vendors.

Street vegetable vendors:

These were household members who chose to engage in street vending in search for alternative source of income to complement household incomes. In the study they were mostly women who left the homesteads in the afternoon and either carried vegetables from the farms or went out to buy vegetables from the market suppliers. They displaying of their vegetables was on mats or raised stones but their economic activities largely depended on customers prescription on the delivery mode.

Suppliers:

These were the people who owned the title of the goods and whose decisions were mostly governed by the forces of supply and demand in determine the market price. They ensured that there was a continuous flow of goods into the markets.

Tertiary markets:

These were markets in Kisumu city where vegetable vendors bought vegetables during bad season and repackaged them into small bundles and re-sold them to customers

Transporters:

These were actors that carried people and delivered goods to the market or to customers at a cost.

Vegetable value chain actors:

These included producers, suppliers, transporters, credit facility providers, vendors, local government and customers who held the business together for posterity.

Vendors' Welfare Group:

Vegetable vendors who operated in the smallholder informal markets registered themselves in groups and saved their money in tandem with the groups constitution and benefited traders socially and economically.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section synthesized secondary materials from journals, thesis, and reports related to informal markets, household livelihoods, well-being, risk vulnerability and income levels of vegetable vendors' households. It provided the basis for study gaps and theoretical framework.

2.2 Theoretical Review

2.2.1 Economic growth theory

Origin of Informal markets in Africa

Studies on smallholder informal markets could be traced back to the research work that was carried out by a British anthropologist known as Keith Hart (1973). Hart, observed the hundreds of people who flocked the city of Ghana in search of white color job but unfortunately could not. With time he noticed that the people did not return to their villages but instead started to sell different items along the streets. He called this economy informal, indeed a reflection of the formal but they were small and lacked trading licenses. A similar report was published by ILO (1972), describing the Kenyan Informal economy and corroborating the experiences observed from the different countries. Hart and ILO spread the concept of informality in Africa as an alternative economic venture for rural and slum dwellers in the cities. The concept enabled Hart to contribute to literature by indicating how the Ghanaians migrants survived by establishing the vending businesses through self-initiatives for survival and continuity for families that were dependent upon them. The street vendors were bold and determined to

generate income for their households despite the hostility they encountered in the cities. These economics activities were linked with classical theory of economic by Adam Smith (1776), that supported supply demand whereby available labour was free to engage in the trade and generate income for the household. The benefit that was intertwined to this gain was the invisible hand, whereby eve the government was able to benefit. The economic theory clashed with the theory of economic development that was anchored on the modernization theory of ideal cities adhering to plans and policies devised by the governments. The modernism theory was in the business of ensuring new cities were designed by forgetting the culture and traditions of the people. The modernism theory could not understand how they could entertain the informal economy that was termed as illegal, dirty and of less value to the government.

As the informal sector continued to grow in numbers, conflicts arose with the government, several studies were also carried out (Clement, 2015) and it emerged that government needed to re-think concerning the informal markets in regard to addressing the rapid growing population that out matched the few jobs that existed. Then Post modernism theory

Origin of economic theory

The classical economic theory by Adam Smith (1776-1880) was concerned by wealth creation for nations in a planned economy that was self-regulating. The economic growth depends on the laws that the price of goods, wages for labour and interest rates on capital were flexible to deliver natural level of real Gross Domestic Product (GDP) of a nation when all resources are fully employed in production. But since ideal environments were not possible to achieve, Smith's devised the theory of exchange value that was developed

from (i) labour cost theory of value and (ii) cost of production theory of value. This led to the introduction of two analytical models that guide the state in devising economic policies. The two policies were, (i) primitive economy that only considers labour as a factor of production and (ii) advanced economy that encompasses labour, capital and land. He later on established the Laissez – faire economic policy where self-adjustments mechanisms exist as facilitated by the market forces and demand and supply.

This Laissez-fairer theory of economic growth promotes individuals / private firms such as smallholder vegetable vendors to conduct their business in a free market environment where the forces of demand and supply determine product prices. The individuals in these markets display their products in the market place where competition for customers is real as the government only acts as a watchman in the process and attainable in the long run. The traders' interests are to make money for themselves, which they do as goods are sold but during this process, Smith observed that traders interest is fulfilled and the broader nations economic growth is also achieved and he termed it as “*trade is always guided by an invisible hand that leads from individuals or private firms' interests to social optimum*”. The smallholder informal market actors “*vegetable vendors*” in Smith's two analytical models, provide room for the vegetable vendors form of economic model to create a third model between the (i) primitive model consist of labour component as a factor of production (ii) advanced model consists of labour, capital and land (iii) hybrid model consists of labour and capital. The hybrid economic model of vegetable vendors perfectly fit in the laissez-fairer free trade economic policy. The vegetable vendors operate in the smallholder informal markets, that are self-regulating but do not comply to government regulations and are not registered making financial accounting difficult. The

income generated from the smallholder informal markets support the rural household livelihoods and the profits received are re-invested for business continuity while cess is paid to the local government and employment opportunities are created.

The neo-classical economic theory by David Ricardo (1819), agreed with Adam Smith's classical economic theory which was self-regulating in wealth creation for a nation. However, Smith's classical economic theory was only achievable in the long run when state resources would be equally allocated to both the formal and informal markets in order to experience the economic equilibrium. Ricardo, stated the economic dynamics would be different in the short run and an intervention to address the economic turmoil would be important. Ricardo, suggested that it would require either (i) increase in money supply through low interest rates on bank loans, (ii) Increased government expenditures and (iii) decreased taxes to stimulate both production, trade and consumption. The neo-classical economic theory works in the smallholder informal markets, when the disposable income is high then purchases of goods and services would be high and the tradable volumes increased

The free trade economic theory

The free trade policy was globally and the proponents were the World Bank and International Monetary Fund in the 1990s. Kenya like most developing countries were associated with the state led policy of protectionism, where a lot of government sectors operations were subsidized. But the free trade theory shared the thoughts of trade liberalization that had been proposed from the older historical school of economics. The classical school of economics were the brain child of Adam Smith and David Ricardo through his 1776 book – an inquiry into nature and wealth of nations. They discussed on

comparative advantage, whereby a country only produced what it could easily and at the lowest costs and imported what was difficult to produce. The production of goods and services were based on the availability of natural resources within the producing country.

Pre-colonial days in Africa, barter trade was prevalent but this was dismantled by the imperialism and slavery that was introduced in the colonial era that also introduced the dependency syndrome in Africa. The barter trade was a shadow of free trade which contributed to the study on classical economics by Adam Smith. Studies by Geda (2012), on regional or community exchange of goods and services from different communities was based on comparative advantage, each community only freely provided goods and services for exchange for what they lacked at low costs.

The World Bank and IMF proposed of trade liberalization as lending institution to reduce debt burdens incurred by government's. The WB and IMF wanted the developing countries to withdraw subsidies on industries, manufactures, and parastatal and retrench civil servants (World Bank, 2020).

In Kenya, this trade liberalization policy led to the retrenchment of many civil servants as the private sector also took an advantage to reduce their labour force, while the government removed government subsidy from the parastatals. This was the beginning of the of unemployment in the country and movement of productive labour force into the informal economy. The young college graduates at all levels had no employment opportunities, rural households that depended on their educated children began to experience financial distress after hopes to recover from sold household assets in supporting their children's education was dashed by the implementation of structural

Adjustment programs by world Bank and IMF in many countries, Kenya included. This policy change gave birth to the robust growth of the informal economy which now supports 60 percent of the labour force and provides employment opportunities for more than 90 percent of all most people in Kenya in the small and medium size enterprises (Etim, E.; Daramola, O. 2020).

The growth of the informal sectors was evidenced by literature showing how the informal sector absorbs the labour force in different counties. In Sub-Saharan Africa, the informal market provides up to 90 percent of employment opportunities and in some countries for impoverished households and contributes 38 percent of the GDP in others (Xiaoxue, 2015). The easy entry into the informal sector was one of the attributes that encourages the rural households with low capital, illiteracy and skills to participate in the smallholder informal markets for purposes of improving food income, food availability for the households, income job and opportunities (Joshi et al., 2014). It is widely perceived that informal economy is a global phenomenon in the expansion of world economies (Munro, L.2011). However, the sector has worrying characteristics such as unreported businesses, lethargic to the law, always devising ways to avoid payment of minimal wage as gazetted by the government, remits no funds for social security and ignoring work time as stipulated by the law. Since the labour supply is greater than the demand, the supply and demand forces in the market are at play and not in favours of a population that has over stretched its natural resources. The formal sector is no longer safe because slowly they are emulating the informal market by preferring to hire part-time workers, as well employing skilled labour in low paying positions in organization for low income. This type of engagement is non-committal in the payment of employees'

benefits such as medical insurance or social security (Schneider, 2002; William 2011). The importance of the informal market cannot therefore, be underestimated and the possibility that emerging work arrangement in the formal economy is reversing formal employment into informal employment terms, thus compromising the living standards of the participating households as reducing government potential revenue.

For the development of the rural economy, it was becoming necessary to understand the relationship between the rural households' livelihood models, the economic theories and the pillars that drive the development of the informal economy. Although economic focusses on people, the anthropologists and sociologists try to understand the relationships between the disadvantaged people in a community and the type of economic work they engage in to support the households' livelihoods (Wilson, 2010). The understanding of communities therefore is inclusive of; economic activities by the vendors and incomes, social relations and capital, job opportunities and unemployment. However, the vulnerability theory sought to assess how people's vulnerabilities were caused by existing structures and institutions. In a government, all adult people were responsible for the households' welfare and the development of the National Government which stemmed from economic and planning policies of cities and rural towns infrastructure. The tax collection from both the government and private sector that supported the provision and maintenance of public goods and services were determined through the Gross Domestic Product (GDP), an economic growth indicator. Lack of registration by the informal sector actors to some extent denies the government from capturing the accurate statistics on real GDP. Since the informal sector was the current largest employer, 70% in Kenya ((KNBS, 2020). It was important for the sector be

streamlined for mutual economic benefits. This requirement was further corroborated by information from the regional level, indicates that more than three quarters of the workforce are from rural households, and equally trade in large volumes of goods (Mariam Olafunyu, 2019).

2.2.2 Informal Markets

Keith Hart (1973), coined the term informality to describe the emerging economic survival strategy. The Ghanaian migrants from the villages could not return home because the growing population had depleted the natural resources and were condemned to poverty. While in the city, they observed the people's needs or demand for different goods and services and heeded to the call to supplying goods at affordable prices and convenient location to be compete with the established formal businesses. The types of goods sold range from food items, wares, electronics, curios, opened carpenter shops for furniture and second hand clothes among others (Loison, 2015). These informal businesses were characterized as small, unregistered, non-tax compliant, evade contributions to social security fund nor adhere to labour laws (Chen, 2006). Studies by several authors have described informality as fragile economy, characterized by low quality goods and services, transacted by the vulnerable rural and urban household members such as women, youth and the rural poor (ILO, 2018). The street vegetable vendors' in the smallholder informal markets were also associated with low income earners, large informal employment and low income contributions to GDP Joshi et al., (2013; 2014). In Kenya, similar studies were carried out by ILO (1972), and further added more features to informality to include the size of employment with less than five people, and there was no division of labour, capital and ownership. Despite, limitations

that exists in the informal economy, it remains a central agenda to development for many nations (Mahadea, D.; Zogli, L. J., 2018).

2.2.3 Informality and economic entrepreneurial theory

Entrepreneurship had their roots in economic activities that involves the combination of some factors of production such as land, natural resources, capital and labour by human beings to produce goods and services for sale in exchange for money. This description best fit the activities performed by the street vendors as the motive of profit making in competitive environment is a common factor.

The economic entrepreneurial theory was embedded on three economic theories; Classical, Neo—classical and Austrian market process. The classical theory was concerned with the complete production of the product using specialized labour and delivery to the market (Tiryaki, 2013). The Neo-classical economic theory performs all the functions conducted by the Classical theory but additionally undertakes the risks of buying the product at a price and therefore, entrepreneurs were considered to have knowledge about potential market for a higher price mark.

The majority of the actors in the informal market, the street vendors are self—employed, often referred to as entrepreneurs. They are characterized with low skill, invest low capital and may never access formal employment. The informal market sector has therefore, become a reservoir of potentially productive entrepreneurs who are kept out of formality by high regulatory costs, most notably entry regulation. An Austrian trained economist, Schumpeter (1833-1550), argued that the informal economy whose actors were largely entrepreneurs who were the cornerstones for the capitalist formal economy,

economic development system practiced in Kenya. This theory states that both the informal and the formal economy was driven by the market forces of demand and supply for goods and services. In that scenario business diversity included; ownerships, labour component, size in terms of investments levels but with one agenda of profit motive, hence the need for vendors to understand price dynamics in a market place (Richard Cantillon's theory, 1775).

The Austrian's theory perspective on street vendors indicated that entrepreneurs participating in the informal sector, clearly indicated that street vendors were equal to the tasks of creating their own self-employment. The other benefits created in the value chain are from the stakeholders' engagements adding value to the product, creation of employment and with appropriate policies increase in the economic growth of a country. The street vendors as entrepreneurs also understood that the products they dealt with underwent diminishing of utilities and may have required coping strategies for continuity (Gimmnez Roche, 2017). There was large numbers of entrepreneurs participating in the informal sector which was a dominant feature associated with developing economies and encompasses diverse group of workers and enterprises.

In regard to the economic entrepreneur theory, street vegetable vendors like most vendors are self-employed. Their qualification is basically, low literacy and in some cases consists of semi-skilled labour used while performing their work in the informal sector. The skilled workers in the formal employment were endowed with skilled and produce goods and service for the required market. The two economies were essential in producing products and services that the country earn revenue from. This economic system was

hybrid nature, produces goods and services and creates employment opportunities. In view of this, it was not in good taste for the informal sector to continue to suffer from stereotyping terms such as grey economy, chaotic form of employment among others. The informal sector was full of businesses that were products of individuals' self-initiatives which heavily contributes to households' income that supports their basic needs. It had far reaching consequences and any decision made to dissolve the sector by a government, could have sunk the vulnerable households into deeper poverty.

The government should not have played a passive role concerning the informal sector but instead they should have strived to actively get involved in the planning, reviewing policies to streamline the sector. To minimize the long-standing negative connotation of informality, this literature review gave evidence and unveils the masks of that shield the truths of the contribution by the informal sector (Saungweme 2017).

The distribution of informal and formal wage employees and employers with secondary education showed some disparities across regions where there was a higher proportion of workers in the informal sector (Carmen 2010). Informality was defined by size of labour, level of investment, capital and ease of entry. These features made it possible for the vulnerable rural and urban households to explore the opportunity in the informal sector as an alternative source of income for their livelihoods. However, for private firms, they rarely employed 10 employees, those two scenarios suggest that there was a large fraction of informal workers who were employed in the informal market sectors. Firms are defined by the product or services they produce and often a homogeneous good. This was done by using semi or skilled labor as their only input which was the only differentiating

factors from the informal sectors with variety of products. Product and labor markets are competitive, and employers in the formal and entrepreneurs in the informal sector face the same costs for factors of production or sale price. The actors in the informal sector are able to avoid taxes and labor costs, but face a probability of detection by government officials. This is worked out by use of an economic model such as; sector membership is defined by the extensive margin, and the (in)formal sector is formed by (un)registered firms (Hies 2014).

The micro-enterprises are almost purely informal but the medium enterprises start as formal entities and pay the fixed entry (registration) costs and higher variable costs due to revenue and labor taxes. However, they decide latter to hire workers informally and gradually operate as informal entities by avoiding all forms of taxes and regulations, and operate by bribing the system for continuity until the government unveils the syndicate. Having both margins of formality and informality introduces a size dependent distortion in the economy that is able to rationalize two prominent features of informal and formal economy which is a distinct feature in developing countries. They simply reflect hybrid businesses choosing whether to comply or not when given the business challenges they face. The main distinction lies in their predictions about informal sector behavior in when specific policy changes and being able to integrate them uniformly as required (Seicnkman 2017).

The tightening of the law on the micro-enterprises and the required tax returns determine the level of the profit margin within a business. This is a yard stick that contribute to the reduction of unnecessary informality of enterprise and sufferings of the employees. When the policy is simple and affordable even the informal sector will strive to become formal.

The streamlining of the sector removes incentives that contribute to the desire for business owners to remain inefficiently small for purposes of avoiding tax compliance. In many instances the policy review should balance between reducing the share of informal workers, unemployment and contribution of revenue to the GDP of a country. Sometimes the requirements for the medium sized enterprise, when informality is highly reduced, they are negatively affected and these enterprises revert back to micro-enterprise which are basically informal. The role of informal markets on economic development depends on how they respond to different formalization policies. The most affected population among the rural households which include the women, youth and rural poor who have embraced diversification of their productive labor in participating in the smallholder informal markets to complement their incomes (Joshi et al. 2014). It was widely perceived that smallholder informal market was part of the informal economy that sprouted from trade liberalization theory, which was a global phenomenon in the expansion of world economies (Munro, 2011). Yet, there was a worrying emerging trend; the formal market emulated the informal market and preferred to hire part-time workers, as well as employing skilled labor in low paying positions in organization for low income. This type of engagement was non-committal in the payment of employees' benefits such as medical insurance or social security (Schneider, 2002; William 2011). The importance of the informal market cannot therefore, be underestimated and the possibility that emerging work arrangement in the formal economy is reversing formal employment into informal employment terms, thus compromising the living standards of the participating households as reducing government potential revenue.

For the development of the rural economy, it is becoming necessary to understand the relationship between the rural households' livelihood models, the pillars and the drivers of informality. There was need for government to develop policies and development programs that will support the development of smallholder informal markets in facilitating sustainable employment opportunities for rural households as long as agricultural production continues to decline.

The origin cause of informality includes issues related to economic context such as business size, ownership, registration and profit margins. In the rural set-up, the informal sector enables the highly represented by women who lack access to productive assets to survive from the poverty circles (Weng, 2015; Gutiérrez-Romerroze, 2010). The introduction of Structural Adjustment Program in the 1990s contributed to the first massive retrenchment in the civil service, reduced formal employment opportunities and loss of income. These vulnerabilities are emanating from governments implementation of world policies that the citizens had no power to resist but consumers. The households opt to adopt strategies where they migrate their productive labour in the informal sector for income generation to support their livelihoods (Hope, 2014).

2.2.4 The informal economy in Kenya

The government of Kenya targeted the young people, self –employed or with the potential of initiating business in the informal sector with affordable credit facilities to reduce unemployment and improve their livelihood (Republic of Kenya, 2008). The motivation for the rural households was that poor rural households’ belief system prefer off-farm jobs which were deemed to pay better than the on-farm jobs, survival economy (Hart, 2010). However, the strategy by government in supporting self-employment also met the same barriers of illegal business operation along the streets. The youth were unable to penetrate the excessive regulation requirements for business registration. This was because the vendors’ outputs were low and therefore, avoided payment of government taxes, that led to evasion of taxes who were seen as deliberately overburdening the formal economy. Satchi (2018), indicated that the ripple effect of unattainable business along the streets contributed to poor provision of public utilities such as clean-safe water and sanitation. The fragility in the informal economy, further sank the majority of the actors who were poor with high poverty levels that negatively affected the human health.

Most of the informal sector players did not keep proper books of accounts, hence the difficult in the enforcement of the law on revenue collection. Not only did the government suffer from loss of taxes but the owners and employees in the informal sector also did not benefit from welfare packages such as social security fund, house allowances or hospital insurances as businesses could not be separated from owners’ household assets. Evidence from labour force survey (2017) showed that 40% of the informal

economy enterprises operated in their own homes and 16% on footpaths. About 90% of the informal economy enterprises had no employees. This gave an unfair competition to the entities in the formal sector which led to the growth of the informal sector accelerated the collapse of the formal economy in that readymade products flood in the informal market.

2.2.5 Contribution of Smallholder Informal Markets On Income Levels of Households

Mayrhofer and Hendriks (2013), survey report stated that street based vendors primary motive was job creation for their rural households. Bromley (2014), stated that street vendors' economic activities provided goods and services for their households although the study could not ascertain the income distribution but perceived that the recordings were highly skewed and only few vendors were listed as having had high incomes. Study by Skinner (2018), showed that vendors incomes cumulatively were worth a large sum, because of the large number of small actors, but individually the incomes were low, a characteristic of street vendors. Saha (2016), indicated that the role of street vendors in the national economy was tangible as the provided durable and cost effect goods. The Simopoulos and Bhat (2020), stated the importance of vegetable vending which became popular among Ghanaians vendors, while other vendors were organized according to products sold (Motala, 2018).

Simopoulos and Bhat (2020), indicated that vegetable vendors became major business activities based on the as vendors in Ghana. Other vendors were organized according to the products they sold (Motala, 2018).

2.2.6 Smallholder Informal Markets and Food Availability for Vegetable Vendors' Households

Many scholars argued that a household's food need were beyond the dependence on-farm provisions. The rural households in ventured on trade in the informal sector ensured that members of the household had access to adequate nutritious food. According to Verma & Kumar Misra (2021), indicated that the informal markets expanding the provision and availability of food stuffs in the informal markets step by step. Karaan (2013) argued that vegetable vendors were classified as trade in the informal sector and had direct influence on households' food availability both in towns and rural areas. In particular, in the areas with high unemployment, the informal sector absorbed idlest labor force voluntarily. The economic activities in the informal sector enhanced the money circulation among the informal market vendors.

Vegetable vending provided income to the unemployed people in both rural and urban areas. The street vegetable vendors' main purpose was income for their households, and their families, and desired to improve their standard of living (Tigari & Anushree, 2020).

Banerjee (2014), carried out a study on the condition of vegetable vendors' income and expenditure. The study results revealed that most vegetable vendors came from low-income families and they had less money to conduct their business due to high poverty levels. Informal markets for vegetable vendors operated mostly under mutual trust with flexible arrangements. In some cases, producers supplied commodities to traders on credit or traders were able to source for their products directly from the farms (Williams & Nadin, 2010).

At the regional level, more than three-quarters of the workforce in the informal market were from rural households who traded goods in large volumes (Olafunyu, 2019). Despite the existence of vegetable vendors in the informal market spaces, this group had not been treated with the seriousness it deserved and their contribution to household income and livelihoods had been overlooked. Rural household livelihood consisted of human capabilities, assets, and social-economic activities that were needed as prerequisite for development. The sustainable use of the various capitals was used to sustainably help households meet their basic needs and well-being without compromising the natural resources for future use (Serrat, 2017). Vegetable vendors applied the sustainable livelihood framework which indicated a positive return to investments (Ntifo-Siaw, 2011).

Several authors described the informality of markets as a fragile economy, in that it was connected with low-income levels for the vulnerable rural and urban populations that comprised of women, youth, and the rural poor. Nevertheless, the informal market supported 60% of the labor force and provides employment opportunities for more than 90% of all small and medium-size enterprises across the world (Etim, & Daramola, 2020). In sub-Saharan Africa, the informal market provided up to 90% of employment opportunities in some countries for impoverished households and contributed 38% of the GDP in others (Weng, 2015).

In the recent decades, the rural economic activities had changed from wholly depending on the natural resource-based economy that had suffered from fragile environment and weather adversities to running trade informal market spaces. The rural households now

participate in the smallholder informal markets for the purposes of improving income levels and meeting their daily needs. Over the years it had become an integral source of income and income level determinant for rural and urban low-income level households. This practice had become a major source of employment, and income for rural households (Uwitije, 2016).

Adhikar (2011) studied revenue generation in the unorganized sector in India using a case study of street sellers in Kathmandu Metropolitan City. According to the study, street selling was essential to the socioeconomic development of the nation, especially in emerging nations where it helped people find employment, advance manufacturing, and generate cash. According to this study, vendors make smaller investments because they want to increase their take-home pay, which results in lower returns. Mramba (2015) noted that in Tanzania's major city of Dar-es-Salaam, the informal market employed more than 1 million people. The marketing of products and transportation, among other activities, were some types of jobs formed within the informal marketplaces, offering a viable alternative source of employment.

While Mramba (2015), observed a growing network of the informal market in Tanzania and information on informal markets was not specific to the role of vegetable vendors in the income generation of households in rural areas. In Costa Rica, informal market workers had economic and non-economic reasons that enabled them to stay in the informal markets. Mainly the vendors operated their businesses in the informal markets and earned money that was more than what they would get from the formal economy (Meghir et al. 2014).

The role of street vendors and the informal market food providers were considered relevant to the food and nutrition for rural households. Yet, in the informal economy, the majority of the actors were poor and suffered from low-quality nutrition and food availability, provision of unsafe and unclean water, poor sanitation were determinants of poverty, and poor work environment.

Despite the above challenges, smallholder informal markets contributed to households' food availability and in essence played an important role in the diet of many people, especially those from low-income backgrounds. Karaan (2013) found out that vendors working in the informal market absorbed labor in areas where there was no formal employment, thus, promoting the economy and financial flow in those markets. Consumers purchased the same products from vegetable sellers, a significant proportion of the demand for goods and services was met by street vegetable (Renner & Pegler, 1997).

According to Arora & Taore, (2010) vending was a form of product distribution channel that was used for a variety of products, included were; fruits and vegetables, where vendors played an important role in the economy by acting as a bridge between the numerous small buyers and small producers. They bought commodities in small quantities from small producers in rural areas at low prices and sold the same goods to buyers who had limited purchasing power (Dey and Dasugupta, 2009). Saha, (2018) noted that as fruits and vegetables were transited from rural areas to urban centers, the urban rich also benefited from the vendors who provided them with daily requirements at their doorsteps.

According to Oino, Kareithi, and Sorre (2017), the Sustainable Development Goals were the foundation for the accomplishment of food availability at the national and household levels. SDG 12: Guarantee sustainable consumption and production patterns. SDG 1: Eliminate poverty in all its manifestations. SDG 2: Achieve food security. SDG 12: Promote sustainable agriculture. Yet, due to inadequate home organization of agronomic activities, sustainable food supply, particularly at the household level, remained the primary difficulty that most Kenyans faced. In addition, informal markets especially vending was typically characterized by low productivity, resulting in low and irregular earnings. This was aggravated by a lack of access to basic services such as space to operate and access to high-value markets. Informal businesses were typically not financially supported by financial institutions, thus unable to make reliable business transactions, access credit for productive investments, or reliably save to prepare for unforeseen risks.

Restuccia (2014) showed that smallholder affected household livelihood as obtained from the gross incomes generated from smallholder informal markets that fostered food production of vegetable produced or consumed in the household revenue and expenditures.

2.2.7 Theory of social networks and Well-Being of Vegetable Vendors'

Social Interactions

Vendors like all other human beings depend on each other through interactions with different people that with time are enabled to make decisions that take into account the interest of other people knowing that actions taken by one person often affected the other "*no man is an island*" Colebrook, Claire,2021). Although vendors work with different

stakeholders and therefore, lives of value chain actors are affected by those people they interacted with daily, they were also affected by the same people in one way or another. Therefore, the ideal of human society was one which brought people close together as they related (Friedman and Miles, 2006; Jana Brandon and Maria Lehtinen, 2020). These interactions helped the various stakeholders to develop essential systems for all sorts of communication. In the long run some of them acquired positive attitudes from those whom they interacted with through associations (George Herbert, 1934; Andreoni j, Nikiforika N. Siegenthaler S., 2020). Social interaction and the development of self were linked to self-esteem. The study on the relationships between individual behaviour within the vegetable value chain was a social platform for which individuals interacted. Issues of self-esteem, confidence and mutual trust improved. The concept of self-development was enhanced by people's desire for positive evaluation by others as was understood by the Mc Clelland Needs Achievement motivation theory (1961). Adequate periods of stakeholders' interaction with households of vegetable vendors created avenues for learning which reinforced their inter-relationships beyond profit motive. Vegetable vendors and their stakeholders shared their aspirations and fears and how they affiliated themselves to social groups to benefit from group protection and identification. Those mutual arrangements encouraged pooling of resources together by membership and reduced business transaction costs.

Depozo (2015) added that smallholder's informal markets in Peru enhanced transitions in the formalization of different small scale farmers into informal market actors. Smallholders' informal markets were mainly used to differentiate those that were not business oriented by creating values. It operated consistently with different people

managing different value chain nodes. Beneficiaries in those markets included vendors who were landless people, lacked food and had inadequate sources of income. This included vulnerable members of the community like women and the youth who would otherwise have been termed poor and of no fixed abode.

Vegetable street vendors offered a wide range of vegetables, with varying quantities, qualities and affordable prices on vegetables (Bezemer, 2016; Calogero, 2013); Bhowmik, 2015; Muzaffar et al. 2019). Study by Tracey-white (2015), showed that informal markets were known for low-cost retail facilities, small-scale enterprises, fresh vegetables that attracted rural households, slum dwellers and middle class people situated in higher density areas. As a result, both vegetable growers and vendors obtained fair pricing for their produce and purchases of their goods from either the wholesalers or from local suppliers who sold to consumers (Wallace, 2001).

Holness et al. (2019) indicated that in his study, he found out that street vendors who depended on commission after sales were somehow unhappy as business owners received the large proportion of the profits. According to FAO (2009) food vendors constituted approximately 2% of the population in most cities. Muriithi (2015) studies found out the contribution by vegetable vendors as market linkage for vegetable production was huge and mainly a women's domain was the key contributor to positive well-being of the household. For households engaging in vegetable vending to continue benefiting, Bhattacharyya (2016), indicated that capital was an essential requirement for starting any business. Yet, in many studies, vendors had limited access to formal credit and in reality a few financial and credit financial institutions were willing to provide the needed

financial and credit facilities to street vendors for several reasons such as lack of registration among others. While exploring the experience of street vendors (Giraldo et al. 2020) found out that vending had a positive contribution on individual and collective well-being. Sassen et al. (2018), described women street vendors' experiences as having contributed to their households well-being and strengthened their social connectedness and personal drives that improved their business performances. These studies had focused on street vendors dealing in particular food systems such as maize and legumes but lacked information on vegetable importance for rural households that were now depending on it and actively trading along road sides and the rural towns to complement their households' income.

Unemployment

Charmes (2019), noted that in India, the entrance of a new economic and social transformation had been characterized by a rise in unemployment from 11% in 2002 to 22% in 2011 and 30% in 2015. The unemployment rate continued to rise and it is estimated to remain high above 50% by 2032. Rising population, job loss due to diseases, and reduced unemployment opportunities in the public and private sectors increase the demand and participation of the population in the informal markets. Hobson et al. (2018) argued that increased participation in the informal market through trade offered an opportunity for self-employment among youths and women in rural areas. The participation was however hindered by low education level, lack of skills, and poor attitude towards such jobs. Gwadabe and Amirah (2017) noted that although the informal markets constituted a significant portion of the economies in developing countries, it was

sometimes stigmatized as troublesome and unmanageable. The majority of these studies have acknowledged that informal market trading contributed to vendors' households' income and food availability, this was in tandem with some literatures that confirmed that businesses run informally equally played an integral role in the households' livelihoods.

Once people are engaged in employment and there is money flow then households could have access to a variety of food items for utilization. In Thailand and Indonesia, informal markets are central to the food security of the urban working poor (Carrillo-Rodriguez and Reed, 2018).

Social capital

Social capital is based on social interaction among people who carry out economic activities and generate increase in trade (Smallbone et al. 2010; Ramirez et al. 2010). In the smallholder informal markets, the vegetable vendors in their course of carrying out their business activities, interact with several stakeholders that serves the different economic nodes along the vegetable enterprise value chain and share both knowledge and skills that influence business positively (Harding and Preter, 2002; FAO, 2015). These interactions have positive accruals in supporting each of the involved stakeholders in a wide variety of goods, services and employment opportunities (Dey and Dasugupta, 2009).

The theories on social networks by Michael Lipsky (2010); Ojha, Ghimire, Nightngale & Dhungana (2016), was in agreement that those interactions were necessary in business for continuities. Those businesses yielded regular incomes and contributed to the well-being of those rural households' livelihoods (Muzaffar et al. 2009; Singh et al. 2010;

Cohen et al. 2000). The income generated from the smallholder informal markets was often, insufficient or uncertain due to factors such as inadequate capital, unreliable suppliers and/or the interruptions and the illegal nature of businesses operated (Cummins and Harvey, 1996). However, social economic networks formed, brought valuable human resource team that facilitated the economic activities with positive results on rural households' livelihoods (Nahapiet and Ghoshal 1998; Burt, 1992).

Rapsomanikis (2015) examined the publication on the impact of small holder incomes on economic lives in Rome. The analysis of the data collected indicated that household incomes collected from many countries were mainly from United Nations members. Food and Agriculture had grown over the years in different households as stated in smallholder's informal markets data. Smallholder informal markets from farmers had enhanced economic lives through social development opportunities in the international market divisions and trade industries. The sample size of 475 smallholders' farmers living in rural areas were selected and interviewed. The findings showed that working hours per land plot is measured by number of hectares in the area. Small holder's farmers on incomes impact farmer's decision to invest on their families for children and on achievements received from good social benefits such as educations, health and other human livelihood.

According to Mitullah (2014), it was found that when street vendors maintained their businesses from the same location for a long period, customer connections evolved since consumers learned where to always acquire the items whenever they needed them. The stationary sellers were split into two groups by Bhowmik (2012). The merchants that

remained in one location all day long to sell their wares were known as static vendors. The semi-static merchants were those that operated throughout portion of the day. They marketed their goods for a short while in the morning and again for a little while in the evening. While a sizable portion of the vendors were movable, the bulk were semi-static. Also, the stationary sellers were split by non-sedentary and semi-sedentary (Huyer & Westholm ,2017). The street vendors who had a set location to sell their wares were known as stationary vendors; nevertheless, they were required to remove their wares at the end of the day. Semi-stationary vendors are ones with apprehensively set locations who leave their wares at the selling location. Sellers took up enough room for both themselves and their merchandise. Typically, they only offered one or two seasonal vegetable varieties. While prices were low, their enterprises were active. They also enjoyed the benefit of having quick access to fresh veggies (Bhatt, 2016). Vegetable merchants, according to Hermann (2013), were in some cases running part-time companies due to crop seasonality that hampered revenues. When there was an excess of their crops or their homes, they sold their items on the market (Vernooy, 2016).

Depending on the sort of activity they were engaged in, smallholders in informal marketplaces had varying average incomes. To get the highest average pay, vegetable sellers operated at major retail centers. Although the inhabitants typically had servants who went to the retail markets for them, areas with higher incomes were not thought to be the best by vegetable merchants. Also, because of the quiet area, it was challenging for merchants to circulate and draw attention by screaming (Kartik & Srikanta2017). On the other hand, consumers in low-income neighborhoods tended to prefer to pay with credit, therefore they generally avoided sellers who made purchases from neighborhood shops

where credit facilities were available (Rengasamy, 2012). Vegetable vendors preferred mixed-income areas because of the support they got from the consumers.

According to Tracey-White (2015), vegetable vendors' markets, offered low-cost retail facilities based on small-scale enterprises and were often located in the lower- and middle-income, higher-density sections of cities, small towns, and rural villages. McCullough et al. (2008) found that street vegetable sellers in higher-income areas tended to offer their produce at somewhat higher costs than the surrounding supermarkets, and the quality of their produce was often noticeably superior. On the other hand, street vegetable vendors in low-income areas sometimes have pricing for their produce that are far lower than the store down the road.

Smallholder informal market operations are often simple. Vegetable merchants tried to build relationships with frequent customers and gave discounts to them, but it seemed that this limited what they typically sought to accomplish to increase their profitability (Walsh, 2010). Many vegetable sellers offered a variety of goods found in towns to (Bezemer, 2016).

The informal market also included vegetable sellers who set up shop on town streets, at bus stops, next to town halls, and at taxi stands. They either worked for themselves, profitably, or for a dealer, commissionably. In cities, merchants made up around 2% of the population, according to FAO (2014). Middle- and low-income communities were chosen by informal market merchants. Vegetable merchants typically congregated by the sides of the road and at busy intersections so that shoppers could obtain all of their goods in one location. They benefited from lower-income customers who paid low prices for

bad-quality food. Produce sellers bought products from wholesalers or regional vendors who then sold to customers (Wallace, 2013).

According to Holness et al. (2019), commission-based vegetable sellers were often dissatisfied with the commission they earned and claimed that owners kept a substantial amount of the revenues. According to Agnello & Moller (2014), vegetable vendors began their day early in the morning by purchasing supplies from wholesalers. They then traveled to the selling location where they conducted their business throughout the day. The majority of vegetable vendors and producers worked together to establish their own wholesale vegetable stores in the main wholesaler market, which connected growers and vendors directly and eliminated the exploitative middlemen. Hence, both vegetable farmers and reap higher prices for their goods (Parker & Sommer, 2011). The main source of revenue for sellers in small-holder informal marketplaces was crucial to their ability to maintain their financial stability. The kind of supplier and the quantity of goods on hand were factors. The informal markets' connection to the economy through access to finance had an influence on economic activity, profitability, and prospective company expansion (Saha, 2016). Because to the low initial costs and thus inadequate labor conditions and compensation, vegetable vending was an easy industry to break into (Henderson et al. 2013). According to Kebbed (2014), despite working all day, few vegetable sellers were able to make enough money to provide for their families' basic necessities, including food, clothes, and shelter. Low-paid jobs were available to female street and truck vegetable sellers, for whom this was sometimes their main source of income. The women were left with these alternatives due to their incapacity to access

productive assets, potential illness, or lack of skills to engage in higher compensated occupations.

Types of employment provided by the smallholder informal markets

Smallholder Informal Markets provided employment to vendors, market officials, suppliers and transporters while making an important contribution to food security. Also, vendors' appeal as tourist locations helped spur local growth (FOA, 2007). According to (FAO, 1995), selling vegetables on the street was a significant source of extra income, especially for women. According to Gibbon (2015), the fact that there was a constant need for veggies was the reason why there were more merchants selling them. Even if the revenues for the vendors were modest, they were nevertheless guaranteed a paycheck at the end of the day, no matter how little. Nonetheless, according to Nirathron (2016), fruit and vegetable dealers were able to gather the funds needed to raise household living standards.

Informal market vendors provided household goods at reasonable rates, thereby saving the public money, labor and time. The informal sector absorbed shocks and upheavals in the formal sector, if the formal sector failed in any way, its workers turned to vending, and this saved many families. Also, the smallholder informal sector absorbed labor and reduced unemployment while developing vendors' skills (Andreasen & Tribhuwan, 2013). It was vendors' activities that sustained the households' livelihoods (Holness et al. 2017). Indeed, vending is an economic activity for poor households to escape from poverty (Ngiba et al. 2019).

Social capital was based on social interaction among people who carried out economic activities and generated increase in trade (Smallbone et al. 2010; Ramrez et al. 2010). In the smallholder informal markets, the vegetable vendors in their course of carrying out their business activities, interacted with several stakeholders. The stakeholders' served the different economic nodes along the vegetable enterprise value chain and shared both knowledge and skills that influence business positively (Harding and Preter, 2002; FAO, 2015). Those interactions had positive accruals in supporting each of the stakeholders involved with a wide variety of goods, services and employment opportunities (Dey and Dasugupta, 2009).

The theories on social networks by Michael Lipsky (2010); Ojha, Ghimire, Nightngale & Dhungana (2016), was in agreement that those interactions were necessary in business for continuity. These businesses yielded regular incomes and contributed to well-being of the rural households' livelihoods (Muzaffar et al. 2009; Singh et al. 2010; Cohen et al. 2000). The income generated from the smallholder informal markets is often, insufficient or uncertain due to factors such as inadequate capital, unreliable suppliers and/or the interruptions and the illegal nature of businesses operated (Cummins and Harvey, 1996). However, social economic networks formed a valuable human resource team that facilitated economic activities with positive results on rural households' livelihoods (Nahapiet and Ghoshal 1998; Burt, 1992).

As mentioned by Mitullah (2014), when street vendors maintained their business from a single location for a long time, client relationships were created since consumers knew where to always buy the things they required. The stationary sellers were split into two

groups by Bhowmik (2012). The merchants that remained in one location all day long to sell their wares were known as static vendors. The merchants that operated for a portion of the day were classified as semi-static. The bulk of sellers were semi-static, thus it was crucial that they sold when there were more clients around. Also, the stationary vendors were categorized into non-sedentary and semi-sedentary groups by Huyer and Westholm (2017). Non-sedentary stationary vendors were those who have a fixed place to sell their products in the street, but have to remove the goods at the end of the day. Semi-sedentary stationary vendors were those with rudimentary fixed premises, and they left their products at the selling spot.

In addition to significantly enhancing food security, Smallholder informal markets provide jobs to suppliers, market staff, vendors, and transporters. Vendors were drawn as tourist sites as well, which helped the local economy (FOA, 2007). Street vegetable vendors were a significant source of supplemental employment, especially for women, according to (FAO, 1995). According to Gibbon (2015), the reason there were more vendors selling vegetables may be due to the fact that there was a steady demand for them. Despite the fact that they did not generate large profits, merchants were nevertheless guaranteed a paycheck at the end of the day, no matter how small. Nirathron (2016), on the other hand, said that fruit and vegetable merchants were able to collect money that was used to raise household living conditions.

The efforts of the stakeholders increased the capabilities of various actors, helped them learn new skills, and created employment possibilities that allowed individuals to eventually transition from the informal to the formal economy (Andreasen & Tribhuvan, 2013). For 70% of workers and their families, the vending business was their only source

of income, making it an essential part of their daily lives (Holness et al. 2017). Because the formal economy was unable to provide them with regular work, people frequently turned to informal occupations like vegetable peddling as a method of surviving (Ngiba et al. 2019).

According to a research by Skinner (2018) conducted in South Asia, 88 percent of the households' sole source of income was from vending. According to Mitullah (2014), 33% of vegetable sellers had additional employment that complemented their income, making 75% of them the only providers. It gave consumers the chance to sell basic goods and vegetables grown at home to thousands of stores throughout the world during economic downturns. It was seen as the family-supporting, survival-oriented economic activity by others (Hodgson et al. 2017).

2.2.8 Vulnerability and Risks in the Informal Market

Vulnerability

Vulnerability are situation whereby human beings find themselves helpless such as in the case of hazardous conditions that could be natural or man-made. The common environment includes; physical, social, economic and legal hazards. The vulnerability theory was as a result from Martha's studies on the state of human beings at different points in life. Through several studies, she found out that all people were bone defenseless, needed protection for continuity. The study revealed that any time human beings were faced natural disasters such as climate change negative effects of floods, drought, high temperatures, crop and livestock losses they natural became fearful and vulnerable. The theory argued naturally, human beings had no capacity to fully mitigate threatening environment, emotions or relations. Indeed, they needed institutions and organizations supported by a strong government to always be ready to defend the plight of the weak members of the society. The assurance of supportive systems was to developed through an affirmative action to step up plans and or strategies in reviewing laws that are repressive.

In the recent times, Martha's theory of vulnerability on humanity was evident with COVID -19, which equalized all people worldwide. The virus did not spare any human being, it did not discriminate against nations, genders or age. The viral attack rendered everybody vulnerable and the countries of the world closed their boundaries to minimize the spread of the deadly virus. The argument that Martha stated "every human being is defenseless was true". The World Health Organization with top notch vaccine developers

worldwide worked round the clock to develop the preventive vaccines to reduce the deaths caused by the virus.

In smallholder informal markets, the vulnerability theory helped to explain the vegetable vendors' vulnerability in the smallholder informal sector. These markets were mushrooming and provided opportunities for households productive labour force. The adults who were voluntarily looking for alternative income sources to address their income inadequacy, food shortage, high unemployment. Despite their efforts they met several challenges such as poor infrastructure, social inequality, poor sanitation, low access to credit facilities, low managerial ability due to low literacy levels and frequent evictions. The listed problems contributed to emotional stresses and sometimes even led losses of livelihoods. Physical problems involved insufficient space where sales of products were sold, inadequate security exacerbated by lack of electricity as storage facilities were lacking. The strong demand for space in the market, which either reflected unregulated use of space or relatively large profit margins, was one of the social and management issues (Tracey-white, 2015).

According to Bhowmik (2012), vegetable street sellers seldom made a profit from their sales and frequently moved locations in search of better markets. According to Holines et al. (2019), vegetable and fruit merchants were always worried about making a loss, especially when they had to buy their goods from pricey wholesalers. Legitimate public markets in many nations experienced issues with inadequate space, subpar storage facilities, subpar hygiene, and subpar administration (FAO, 2007). Conflicts in the informal markets were allegedly sparked by fierce rivalry among street vegetable vendors

for available space, according to Mitullah (2004). Additional reasons for susceptibility included bad company locations, low customer purchasing power, and unreliable clients who purchased items on credit.

The right to trade area, according to Burnett (2017), was the biggest issue street sellers of vegetables faced. As they had not been designated for commerce, the majority of the areas that the sellers inhabited were seen as unlawful. Residents, business owners, visitors, and politicians all voiced complaints about how sellers interfered with other activities and the ability of people to exit their automobiles onto the street or enter stores (Renner & Pegler, 2017; Hodgson et al. 2019). According to Asiedu and Agyei-mensah (2018), street sellers bargain for physical space, financial opportunity, and power.

The theory was as a result from Martha's studies on human beings that recognizes that all people are bone defenseless and become fearful as they face natural disasters such as climate change negative effects of floods, drought, high temperatures, crop and livestock losses. The theory argues that a strong government is always ready to defend the plight of the weak members of the society but developing an affirmative action to step up plans and or strategies to review laws that are repressive. In smallholder informal markets, the vulnerability theory helps to explain the vegetable vendors' vulnerability in the smallholder informal sector. These markets are mushrooming to provide opportunities for households who are looking for alternative income source to address their income inadequacy, food shortage, high unemployment. Despite their efforts they met several challenges such as poor infrastructure, social inequality in terms of access to credit facilities, low managerial ability due to low literacy levels and evictions that contribute to

emotional stress. Physical issues include inadequate site security, overnight storage facilities, and room for conducting transactions. The market's strong demand for space, which is a result of either unrestrained use of space or comparatively large profit margins, is one of the social and management issues (Tracey-white, 2015).

According to Bhowmik (2012), vegetable street sellers seldom made a profit from their sales and frequently moved locations in search of better markets. According to Holines et al. (2019), vegetable and fruit merchants were always worried about making a loss, especially when they had to buy their goods from pricey wholesalers. Legitimate public markets in many nations experienced issues with inadequate space, subpar storage facilities, subpar hygiene, and subpar administration (FAO, 2007). The informal market had issues as a result of the fierce rivalry among street vegetable vendors, according to Mitullah (2004). Smallholder informal marketplaces were also impacted by poor company locations, limited consumer purchasing power, and unreliable credit-based clients. Trading space appeared to be problematic among street vendors.

The right to trade area, according to Burnett (2017), was the biggest issue street sellers of vegetables faced. As they weren't designated for commerce, the majority of the places that the sellers occupy are regarded as unlawful. Residents, shop owners, tourists, and politicians have voiced complaints about how sellers were impeding pedestrian traffic and other activities, making it impossible for drivers to pull over onto the sidewalk, and blocking store doors (Renner & Pegler, 2017; Hodgson et al. 2019). According to Asiedu and Agyei-mensah (2018), street sellers bargained for real estate, employment opportunities, and authority, which ultimately led to ongoing disputes with law

enforcement and local authorities. According to Timalisina (2011), the metropolitan authorities treated street sellers as criminals and viewed them as engaging in illicit activities. According to Timalisina (2011), there was little room for pedestrians on the walkways because street merchants were using them.

The origin of those problems that street vegetable vendors faced lied within the legal system of the cities, which failed to provide any space for street hawking as an activity and does not recognize its significance in the retail trading (Arjun, 2018). I argue that the smallholder informal markets were a major employer both in the rural and city set ups across the world. It was important to assess the contributions of the smallholder informal markets that each sector and individual actors as street vendors made in their households' livelihoods such as incomes, food availability and dietary, employment opportunities while addressing the factors that contributed to their vulnerability.

Although most governments viewed the informal sector as invisible, "it was too large to be hidden under a bushel". The street vegetable vendors' health, physical loss and harm may have happened during their vending and yet it was still the role of the government to provide for health facility. Human beings have a commonality in experiencing pain and are immobilized by various forms of harmful activities that they easily experience in the smallholder informal markets.

It was the government responsibility to evaluate the contributions of those markets on households' livelihood. Indeed, the government should have found it a privilege in that the majority of the people who were supposed suffer from poverty and loss of income, could suddenly find relief by trading in the smallholder informal markets to compliment

the households' incomes. The natural problems emanating for illegality at the market which was designed by the colonial masters on use of space along the streets, was supported modernism theory while government's bid to streamline the sector re-aligns itself to the post modernism theory. Both the theories determined the use of pavements or street except, the post modernism proposes that human race was to be respected at all times against natural and physical vulnerabilities. This was because for the majority of the human beings, the ability to resist hazardous situations and escape disasters was limited. I agree with Fineman Martha, (2021) theory of vulnerability that "recognizes and accepts that universally human beings depend on social relations and institutions that supports them". The study on smallholder markets consisted of human beings that depended on each other "social relationship", at the market place this was true as the stakeholders were mapped along groups that supported them. At household levels, there existed families that were governed traditionally by the patriarchal system which dictated how resources were shared. Vegetable vendors whose majority membership was female were disadvantaged by the belief system and often described as vulnerable members of the households, inclusive of the youths and those living with any form of disability. Whether the institution was formal as in the case of government or informal as for family set up, there was need to address vulnerability. The causes of vulnerability of the vendors operating in the smallholder markets could be addressed by recognizing that as individual are weak and gullible by nature. As a group they could voice their issues without expecting much change in the system, but when the relevant institution prepared instrument for change of action, collective responsibility in reviewing policies and institutional arrangements was much faster (Frank Rudy Cooper, 2015).

Cummins and Harvey (1996) report that vegetable merchants mostly lamented that poor road conditions to the market were to blame for the sharp decline in sales. Street market infrastructure issues made sellers more susceptible to hoodlum attacks. Several merchants in the agricultural market were compelled to turn to sidewalk sales as a result of all these issues.

The daily cess that a street vendor paid served as the local authorities' semi-legal license to sell his or her goods in particular areas and at specific times, preventing the forceful eviction of vegetable sellers from their selling positions. The primary issue the vegetable street sellers encountered was the regular intimidation and expulsion from their locations by the government and traffic police (Parker & Sommer, 2011). Street vegetable sellers often lacked legal status and recognition, and they would have endured regular harassment and removal from their selling location by local authorities or rival merchants, according to Chen et al. (2004); Kenya Gazette Supplement Senate Bills (2019). In order to operate legally, street vendors were required to bribe government officials with a significant portion of their earnings (Bhowmik, 2015).

The actions of vegetable vendors were unclean and added to street pollution in metropolitan areas (Arora & Taore, 2010). Vegetable sellers, according to Soon et al. (2009), constituted a serious threat to public health since they lacked the necessary tools and facilities, such access to clean water. Many people neglected to practice proper eating and personal hygiene as a result. Vegetable waste and more trash were frequently left behind by vendors, and some of these items usually ended up in streams and waterways. The buildup of garbage led to an increase in vectors including rats, flies, and mosquitoes.

Vegetable vendors make a lot of noise with their announcements, they contribute to traffic accidents and increasing levels of vehicle-generated air pollution, and they frequently leave trash on the streets with their clients (Bromley, 2016). For street vegetable sellers, road accidents, breathing car exhaust fumes, weariness from long hours, and potential exposure to criminality were the most significant health and safety risks or problems. Vendors frequently lacked enough knowledge of the dangers to which they were exposed and had no idea how to mitigate them. They frequently worked in busy, open areas without adequate sanitary facilities, electrical installations, drinking water supplies, or waste disposal.

According to Dewar and Watson (2016), they noticed that the street was the classroom where one learned what things were needed and the value associated to such products by learning from more seasoned sellers and exchanging experiences with others who had also just started. Several nations used licensing requirements to regulate vending, which forced small business owners to apply for licenses. In order to limit the number of vendors, the designated marketplaces where they sold required market-stall tickets only while they were open for business. In an effort to limit where sellers may operate in the city, restricted vending areas may be established.

A study done in India by Arjun (2018) stated that when vendors were found operating illegally without licenses or contravening regulations the government imposed heavy fines and harsh punishments. Saha (2019) most of the street vendors come from the rural areas in search of better paid jobs in the urban areas. They become street vendors because vegetable vending was one of the easiest means of earning a living as it required minor

financial input. Food vendors were the main enterprise that large groups depended on, and within this group fruit and vegetables played the most important role for households' income (Hermann, 2015). Although conflicts became constant factor that triggered the law enforcement agencies and city authorities. Timalsina (2011) stated that the urban authorities considered street vending was illegal activity and they treated street vendors like criminals. Timalsina (2011) added that street vendors occupied the footpaths leaving no space for pedestrians.

The origin of those problems that street vegetable vendors faced lied within the legal system of the cities, which failed to provide any space for street hawking as an activity and does not recognize its significance in the retail trading (Arjun, 2018). I argue that the smallholder informal markets were a major employer both in the rural and city set ups across the world. It was important to assess the contributions of the smallholder informal markets that each sector and individual actors as street vendors made in their households' livelihoods such as incomes, food availability and dietary, employment opportunities while addressing the factors that contributed to their vulnerability.

Although most governments viewed the informal sector as invisible, "*it was too large to be hidden under a bushel*". The street vegetable vendors' health, physical loss and harm may happen during their vending and yet it was still the role of the government to provide health facilities for all her citizens irrespective of gender or employment state. Human beings have a commonality in experiencing pain and were immobilized by various forms of harmful activities that they easily experienced in the smallholder informal markets.

It was the government responsibility to evaluate the contributions of those markets on households' livelihood. Indeed, the government should have realized that it was a privilege in that the majority of the people who are supposed suffer from poverty and loss of income, could suddenly find relief by trading in the smallholder informal markets. The natural problems emanating for illegality at the market which was designed by the colonial masters on use of space along the streets, supported modernism theory while government's bid to streamline the sector re-aligned itself to the post modernism theory. Both the theories determined the use of pavements or street except, the post modernism which proposed that human race is to be respected at all times against natural and physical vulnerabilities. This was because for the majority of the human beings, the ability to resist hazardous situations and escape disasters were limited. I agree with Fineman Martha, (2021) theory of vulnerability that "recognizes and accepts of human beings need to depend on social relations and institutions that supports them". The study on smallholder markets consists of human beings that depended on each other "social relationship", at the market place this is true as the stakeholders are mapped. At household levels, there existed families that were governed traditionally by the patriarchal system which dictated how resources were shared, vegetable vendors whose majority membership was female were disadvantaged by the belief system and often described as vulnerable members of the households, inclusive of the youths and those living with any form of disability. Whether the institution was formal as in the case of government or family set up, there was need to address vulnerability. The causes of vulnerability of the vendors operating in the smallholder markets could be addressed by recognizing that as individual were weak and gullible. As a group they could voice their

issues without much change, but when the relevant institution prepared instrument for change, collective responsibility in reviewing policies and institutional arrangements was much faster (Frank Rudy Cooper, 2015).

The major complaint of vegetable dealers, according to Cummins and Harvey (1996), was that sales had collapsed as a result of the unfavorable market circumstances. Street market merchants are more susceptible to hoodlums due to infrastructure issues. Several sellers in the agricultural market are forced to turn to selling on sidewalks as a result of all these issues.

The daily cess that a street vendor paid served as the local authorities' semi-legal license to sell his or her goods in particular areas and at specific times, preventing the forceful eviction of vegetable sellers from their selling positions. The primary issue the vegetable street sellers encountered was the regular intimidation and expulsion from their locations by the government and traffic police (Parker & Sommer, 2011). Street vegetable sellers often lacked legal status and recognition, and they would have endured regular harassment and removal from their selling location by local authorities or rival merchants, according to Chen et al. (2004); Kenya Gazette Supplement Senate Bills (2019). To continue selling on the streets, street vendors had to bribe the authorities with a significant portion of their earnings (Bhowmik, 2015).

The actions of vegetable vendors were unclean and added to street pollution in metropolitan areas (Arora & Taore, 2010). Vegetable hawking, according to Soon et al. (2009), offers a serious public health issue since vegetable sellers lack the necessary tools and facilities, such access to clean water. As a result, many people do not practice proper

eating and personal hygiene. Vegetable waste was frequently left behind by vendors, which littered the sides of the highways and inevitably made its way into rivers and streams.

The buildup of garbage led to an increase in vectors including rats, flies, and mosquitoes. Vegetable sellers make a lot of noise with their announcements, contribute to air pollution from vehicles, create traffic accidents, and frequently leave trash on the streets with their clients (Bromley, 2016). For street vegetable sellers, road accidents, breathing car exhaust fumes, weariness from long hours, and potential exposure to criminality were the most significant health and safety risks or problems. Vendors frequently lack adequate knowledge of the hazards to which they are exposed and lack the skills to mitigate those risks. They frequently labored in areas with high traffic and little access to sanitary facilities, drinking water, power, and other basic necessities.

Dewar and Watson (2016) said that they identified the street was the classroom where one learns what items are needed and the value associated to such things by learning from more seasoned sellers and sharing their experiences with those who had also just started. In certain nations, licensing requirements that forced small traders to apply for licenses were used to limit hawking. Vendors operated out of designated marketplaces, where a market-stall ticket granted them access for a set period of time and served to limit the number of sellers. In an effort to limit where sellers may operate in a city, there may be zones designated as restricted vending areas.

According to Arjun (2018), merchants were anticipated to pay the hefty penalties levied on them as a severe penalty to discourage them from peddling. According to Saha (2019),

the majority of street vendors come from rural regions in quest of better-paying occupations in metropolitan areas, and they made all effort within their capabilities to survive and take care of the members of their impoverished homes. They started selling vegetables on the street since it was one of the simplest ways to make a living and just required a small initial investment. Fruits and vegetables were the primary source of income for rural households among food sellers, who were the primary trade group and heavily relied on non-shop outlets (Hermann, 2015).

Kenya's informal sector was a continuum of tradition behaviour of the people from their culture, asset ownership and cultural practices. Vegetable vending was a female enterprise, a domain that women had thrived and expanded their businesses as profitable enterprises and alternative livelihood for rural women's (Iwitije, 2016).

Studies by Verma & Kumar Misra (2021) recognized that vegetable vendors lacked all forms of registration while government pointed fingers at them claiming that they evaded taxes and placed greater tax burden on the official sector. The net effect of the informal sector was the negative impact on public utilities, lower productivity and economic growth in the short run (Defiesta & Rapera, 2014). In this regard, vulnerability assessment was a vital juncture in designing operational adaptation strategies.

The vulnerability assessment of the smallholder informal markets on vegetable vendors was a construct to help the policymakers to design and implement appropriate adaptation strategies (Ellis, 2016). Adu, Kuwornu, Animsomuah & Sasaki (2018) their study on the adverse effects of climate variability and extremes exerts increasing pressure on rural farm households whose livelihoods were dependent on nature equally affect vendors.

Therefore, the study assessed the types of vulnerabilities and their effects on the vegetable vendors.

These vendors also vary greatly in terms of scale, timing and location of their sales and remuneration (Bromley, 2015; Nirathron, 2016). Bhowmik (2010) classifies street vendors based on their commodity into two categories; first category of vendors sells food items such as vegetables. The second category of vendors sells non-food items such as clothes, thousand shoes. Nirathron (2013) also classifies vendors according to their selling location, for example the market or the street. Male vendors are more likely to be mobile, selling their products from push-carts and bicycles (Bhatt, 2016).

Mobile street vendors or vendors are self-employed individuals in the informal market sector who offer and sell their wares on the street without having a fixed built-up structure, according to Saha (2011). Mobile vendors are those that deliver to clients utilizing trucks and trolleys. In other words, they are mobile sellers that sell their goods wherever they go. A mobile seller is one who goes around looking for consumers, according to Hattacharyya (2012). Because they roam about to identify potential customers, mobile street sellers are the ones succeeding in the vegetable sector (Lubell, 2013).

By doing this they satisfy customers' needs because most potential customers feel that it is difficult for them to walk long distances to reach the vendors. That is the reason why most customers prefer the mobile vegetable vendors to bring their products where the customers are (Banik, 2011). Nirathron (2016) states that the advantage of a mobile vendor is the accessibility to the buyers, and that they are less dependent on location.

They can relocate their businesses from one place to another with little difficulty. Vendors mostly sell goods that customers need on a daily basis, such as vegetables and fruit. They are characterized by not having a fixed permanent place to sell their products, and they are always moving delivering their products door-to-door. They require little capital to start their businesses. They provide daily fresh vegetables at reasonable prices to their customers, and they do not have fixed working or selling hours (Wallace, 2011; Maheshwari et al. 2017).

Asiedu & Agyei-mensah (2018) call the vegetable vendors the walking vendors. Vegetable vendors usually carry small quantities of their produce in boxes or baskets. Wallace (2014) stated that those vegetable vendors who carried their stock on their backs or on their heads in containers or baskets are called peddle. Their income depended entirely on the skills they displayed while moving about in search of customers, since it was highly unlikely that customers would go in search of them (De Soto, 2012).

According to AchoChi (2012) the vegetable vendors depended on factors such as natural resources, market accessibility, location competitions, which were in turn depended on the growth and development of the basic sector of the urban area. As stationary vegetable vendor sold from stalls in a fixed location throughout the day (Bhattacharyya, 2011; Mitullah, 2014). Most street vegetable sold as they sit on the sidewalk or on the ground and sell their goods to passing customers (Agnello & Moller 2014). The market traders and pavement sellers came from this category. Stationary vendors were also known as non-mobile vendors. They were always found in one place selling their products to the customers.

According to Tracy-White (2015) stationary vendors were sellers who had a permanent space in the market, under a shed roof constructed by authorities, for which they paid rent. De Soto (2012) referred to them as fixed location vendors because they did not move around in order to sell their vegetables. According to Unni and Rani (2017) stationary vendors were those vendors who used a fixed location usually found on street crossings or near the junction of the main roads and on street pavements selling their products to the passing customers. The vendors' choice of how to operate was mainly determined by the number of customers who frequently visited them in a day.

Vegetable vendors' business was active when prices were low and often suffered loss of income from time to time. But often recovered because they also had the advantage of immediate accessibility to fresh vegetables (Bhatt, 2016). According to Hermann (2013) vegetable vendors were to some extent in part-time business as they came and went away in certain seasons and with the climax of harvest they had their most prosperous periods in terms of food availability and income generation opportunities. Part-time vendors were also known as seasonal vendors sold in the smallholder informal markets occasional for income.

2.2.9 Effects of lack of benefits for informal workers

Lack social protection and other basic benefits such as compensation for overtime work, severance pay, unemployment benefits, sick leave and social protection. Furthermore, they had no entitlements for any public social security such as accident, health, pensions etc. An ILO study (Lee, 2018) showed how employment insurance would have cautioned workers against falling in to poverty in during financial crisis that could have been caused by a pandemic and followed by high inflation in a country.

Work conditions for informal sector workers were unfavorable and many people worked for longer hours and were often exposed to occupational hazards and work accidents. Lack of unions and workers' association was the normal but when they existed, their informal structures made them less powerful than those in the formal sector. The vendors' rights were not always not respected. Starting up an informal business could require the payment of a significant amount of money as an entry fee. In addition, it could entail prior investment in physical and human capital. Finally, sustaining an informal business could be costly. Although informal entrepreneurs did not pay taxes and contributions, they often paid high fees in terms of bribes. Besides, informal market or sector employees had less chance of accessing formal training (Lee, 2018).

Benefits accrued in the informal market

There were benefits and opportunities associated with at least some forms of informal markets. These benefits go beyond the standard arguments of tax and various contributions avoidance (Cichello et al. 2016). It was important to note that those benefits did not equally apply to all people working informally. However, even those individuals who were found in informal work without having chosen it benefit from some of the opportunities that informal employment offered. Inefficiencies in formal sector protection and low levels of labour productivity made the informal sector employment a better option for some people (Maloney, 2020).

Meas (2018) showed that movement from self-employment or contract work into formal salaried employment was associated with decline in wages whereas movement from formal salaried to self-employment or contract work led to a significant increase.

Furthermore, movement from formal salaried and informal salaried work into self-employment was associated with substantial and significant increase in wages. Working in the informal market could be the only chance of accumulating experience or even of training and apprenticeship for low-skilled young workers or unskilled older individuals. Besides, talented workers could have been better prospects for upward mobility in the informal market. Finally access to informal networks through informal employment in certain cases became effective in providing some sort of unemployment and health insurance. Moreover, informal work, formal employment and migration often coexists within a given household. More importantly they could also be used together by the same individual wishing to maximize his or her utility and income. Given the complexity of the issue and the vast variety of possible types of informal activities and employment, the simple framework presented earlier is not likely to fully capture the selection of individuals across the different types.

Agadjanian, (2002) potentially described not only the individual decisions but also those of the households or the extended families. This could be appropriate given that often the choice between formal and informal employment depended on the household structure and the labor market status of other household members. The benefits and costs of work in the different sectors were viewed in light of the household composition and the labor market status of other family members. Moreover, the life cycle model could be extended to the household level. As time goes by, the size, education and age composition of household members changed and, along with it, labour market choices changed (Restuccia & Adamopoulos, 2014).

The dynamics of informal market employment, included components such as, wages of employees and self-employed-and the change within this composition has a huge impact on the pattern of growth a country was taking as well as how access to social security could be organized and funded. A major finding of the critical evaluation of the literature is that the current realities no longer match with long standing models of development (Rapsomanikis, 2015).

The long-held view that associated the '*informal market*' low skilled labour, low paid jobs, social exclusion, low quality products all seemed not to match with today's reality, that stated "*informal sector a major employer in most developing countries*" (ILO, 2018). Besides the well-known arguments of tax evasion, higher earning potential and less regulatory constraints for the self-employed, this study also found ample evidence that informal workers also benefitted. The family networks were strengthened with increased social capital, availed in a more flexible and less risky way of achieving credit as well as generating income. This was not to say that most informal workers wouldn't be better off working in the formal sector-if one exists.

It was argued that the poor rural household members who worked in the informal sector had limited work opportunity choices. But this review challenged this common perception, many people had indeed choices within the informal employment activities, they all depended on the starter capital except they somehow similar in that those choices were not real opportunities for escaping poverty (Namara, and Gebregziabher, 2019). This was further qualified by a wide consensus of people who indicated that the different genders of households who qualified to work were endowed with resources differently.

This phenomena, therefore categorized the choice, size and the type of informal employment for each household member in towns and cities where street vending's were located across countries. Mthomben, (2013), indicated that several studies were in agreement that there was a need to improve data collection and quality in the area of contributions of smallholder informal markets on households' livelihoods.

A study of Meghir et al. (2014) explained that workers in the informal sector in Costa preferred to work in the sector, it provided better work opportunities and incomes. Their choice to work in the informal sector had negative implications for the government in terms of non-payment of taxes that reduced government revenues and ability to provide public goods and service. Secondly, growth of the smallholder informal markets was likely to distort formal economy employers' decisions concerning important issues of production such as the size of their labor force. Thirdly, informal markets output is not correctly quantifiable, often associated with less productivity and its competition with the formal economy outputs may not be ascertained.

The results from the study showed the probable consequences of, inappropriateness of the allocation of resources for the informal economy, unlike, in the informal economy. It is prudent to facilitate both the sectors with reasonable allocations of resources to improve the economic growth of a country and reduce burden associated with business regulations. The streamlined informal sector was perceived to play an important role in the future and was expected to shape the employment and welfare of the people that had suffered from the negative repercussions that were a direct effect from the implementation of trade liberalization policies in the 1990s in most developing countries.

Charmes (2019) noted that in most developing countries, the informal sector provided entrance of a new economic and social transformation opportunities that had been characterized by a rise in unemployment cumulatively to 30% in 2015. The unemployment rate continued to rise in the 2000s with 37% and expected to remain high above 50% by 2032. Structural adjustment programme introduced by the government brought massive retrenchments; contributing to idle human capacity and physical infrastructure. The combination of the above factors reduced the worker's real standard of living, a trigger for the increased growth of the informal sector as a rise in unemployment mounted pressure for the need of employment. The informal sector will continue to create employment opportunities, it is therefore, recommended that the government formalizes the sectors economic activities by reviewing policies that would reduce registration procedures. This would enable businesses no matter the sizes to comply with business registration rules, laws and regulations. This would broaden the tax base, provide better incomes, jobs and re-inforce the need for social welfare packages in the informal markets (Hobson 2018).

Mbiriri (2010) observed that the advantages of the formalization of the informal sector would broaden the tax base, provide higher quality products and services and receive better incomes with more sustainable jobs. This would further revive the needed social contract between the employee and employers and build the confidence of business players.

Ding, Wang, Liu, & Yu, (2020) stated that the informal sector enhanced livelihood skills which included the technical and vocational abilities (carpentry, sewing, weaving, and

gardening, among others). In this study, the researchers considered livelihood skills to include the physical ability of household members to carry out activities regardless of their educational levels. Livelihood promotion were considered as set of development-based interventions that improved the households' resilience. The opportunities in the generation of income sustained the livelihoods by the provision of basic food and other basic needs (Amare & Simane 2017).

Saungweme (2014) concluded that the informal sector facilitated wealth creation in response to hyperinflation and cutbacks in public services which took the advantage of the misalignment in the economy. The informal sector in Kenya like other in Africa countries had been known for wrong reasons ranging from tax evasion to criminal activity. This study discovered that some of the main causes of informality in Kenya were internal migration, unemployment and seeking for survival. The costs of informal sector that were noted included loss in state revenue which collapsed the formal sector. This gave birth to the informal sector in mopping up excess labour in the market at a lower income. The informal sector is an equal employer and its formalization and upgrading will create a better work environment and the realization of increased as corruption in the system is minimized. It was noted that ordinary people tried to make meager living from informal activities such as buying and selling fruit, vegetables, clothes, shoes and other goods. However, Karine, Ihrig, Jane & Moe, (2014) argued effects of environmental factors, such as drought, moisture stress led to crop failure and loss of livestock contributed to loss of meaningful work among rural households and further created opportunities for search for alternative income in the informal sector.

Mcdermott (2017) described informal sector as the backbone of the national economies in developing countries, although stigmatized as troublesome and unmanageable. He argued that the circumvention of labor market regulations specified was unrealistic requirements that deprived some workers of the deserved benefits but treated the formal sector works better than those who were in the informal sector.

Unreported employment, also known as money under the table, was associated tax evasion, Hornstein (2015). Informal markets were a significant component of the economy that provided employment opportunities, to millions of workers and business owners. The informal market could be referred as people involved with odd jobs or who provided services for daily wages. Examples include: home renovations, car repairs, fruits and vegetable selling. According to Lubell (2018) street vegetables vendors continued to draw entrants as long as other sources of urban employment lagged behind while population and labour force increased in most the developing countries. Producers responded by shifting their crops to vegetables that had a higher market value. Bromely (2016) stated that the street vegetable vendors were growing at a tremendous rate and that it reflected some the structural changes that occurred in the economy as a whole. The rapid increase in street vegetable vendors was attributed to factors such as the economic crisis, mass unemployment and the growth of the informal markets.

Maganga (2014) observed that globally, most of the people earned their living by selling goods and services on the informal markets. In Arabia, the number of people working in informal enterprises had been on the increase. However, it was not possible to determine the exact number of vendors (Skinner, 2018). Mitullah (2014) further stated that

estimating the number of street vendors or vendors was not easy due to the nature of their operation. Their numbers varied depending on the time of day or the season of the year. Some vendors worked on part-time basis, and sold their products in the morning, afternoon, or evening, while some sold only on weekends and others sold during certain seasons. All those work schedules posed great challenges to estimating the number of informal markets actors, operating in a town or in the country.

Recaudo et al. (2018) gave another reason why the exact number of street vendors was not possible to be unknown, namely that many street vendors were itinerant, moving from one place to another. According to IMF (2021) it was estimated that about four fifths of the total global population was employed in the informal sector which include street vendors, but they are not regarded as “real” workers as an employer-employee relationship cannot be established. This made was the reason for informality and the uniqueness in the sector that required the urgent attention by governments. (Muzaffar et al. 2019; Singh et al. 2020). Cohen et al. (2018) stated that informal markets were readily accessible avenues of employment that were opened to whoever needed to earn a living. Freudenberg et al. (2016) in their study on public health, indicated that the selling of fruit and vegetables was viewed as a good practice by the majority of the population as it provided access to a wide variety of affordable nutritional food. Bhatt (2016) stated that the middle-class enjoyed buying fresh produce at low prices from vegetable vendors. According to Saha (2019), most women sold vegetables, because the profit margins from vegetables selling were higher compared to those from other products, and it required low investment compared to other activities. Lincoln, (2018) argued that vegetables vendors attracted those who had limited opportunities to obtain formal employment or prestigious

businesses, but still, it was increasingly becoming an option for many citizens (Mitullah, 2013). The lack of gainful employment coupled with poverty in rural areas had pushed people out of their villages in search of better existence in the informal markets. Most informal market started their trade because there was no other source of income and employment. According to Bhattacharyya (2017), informal were important to growing companies as they were supplied goods from the informal sector at cheaper prices. The people who started out as informal marketer vendors do not do so with the idea of remaining on the street forever, but with the intention of moving at some point to markets.

Gibborn (2017) showed that informal markets, did not make big profits, but were assured of some income at the end of the day. However, Austin (2014) stated that most street vendors were not worried about expanding their business. The vendors were more worried about staying in the business and the generation of income to sustain their households' livelihoods. Hermann, (2018) Most of the sales of vegetable occurred through street vending, small shops and open-air markets and not through supermarkets. The choice of buying was associated with services such doorstep delivery of vegetables by the vegetable vendors in the informal markets. Maxwell & Slater, (2014) indicated that the vegetable vendors participated in all aspects of marketing, a form of employment at every node of the value chain. Cummins & Harvey, (2015), vegetable vendor disproportionately consisted of women, who operated low investments businesses like vegetable vending. The rural households' livelihoods tried to find solutions to solve poverty and hunger by utilizing of their resources, which was better presented in a five-capital factor – sustainable livelihood approach model that consisted of: human, physical,

social, Natural resource and financial resources while addressing constraints that contributed to the livelihood vulnerabilities. The appreciative inquiry strategies were used to enable the vegetable vendors generate information, their strengths and weaknesses for them to appreciate the resources that they had.

These vegetable vendors transacted volumes of goods on daily basis but did not pay taxes except for daily charges and therefore, the sustainability of their livelihoods was under threat. The results from the study intentions were to contribute to decision by policy makers, development agendas by partners and literature for further studies. Vendors sold their products at low costs to medium income consumers who contributed to the viability of cities worldwide and also provided products in timely manner and at convenient locations (Prankasam S., 2022). Vendors operated in traditional public markets or on the streets, also known as wet markets due to the usual lack of infrastructure. The markets were often muddy and dirty, which raises questions about the safety of the produce sold in these markets (Roesel, 2014). In the traditional public market, demand and supply were continuously unmatched due to seasonal and uncoordinated production thus informal market improved coordination. Informal markets were not loyal to particular suppliers, they went to whoever gave them the best price deals, and they always moved between suppliers in search of lower prices (Van Rooyen et al. 2017).

Vegetable vendors purchased their products in loose form or packed them in sacks or bags, and the products sold to the final consumers are generally bundled up. Common places where vendors' bought their vegetables were from the farm gates, along the streets or at public gathering places (Roesel et al. 2014). Smallholders of informal market was

effective in the facilitation of the growth of urbanization. They vegetable vendors carried out their businesses in stationary or permanent stands on town pavements and in the informal market (Andreassen & Tribhuwan, 2019).

The income of informal market received by vendors depended on the products they sold and location where the business was carried out (Saha, 2016).

In Kenya, the single major source of employment remained the informal sector, which absorbed over 81 percent of the labour force (KNBS, 2010). The huge slash of job opportunities in the formal sector which happened in the 1990s was as a result of structural adjustment programs whose proponents were the WB and IMF. This employment adjustment rendered many people jobless; this made many households become poor. This scenario accelerated the quench for the expansion of smallholder informal markets, hence providing business opportunities for rural households to trade a wide range of product and services for income, food and employment (Yeboah and Jayne, 2016).

The competition in the smallholder informal market ignited innovations and skill development of vegetable vendors' as they established the distribution networks for the supplies of vegetables along its value chain economic nodes provided the market outlet for farm produce (Hope, 2014). The vegetable vendors' economic activities were mainly sustained by the suppliers of vegetables and consumers (Minot and Ngigi 2004; Voor Den Dag, 2003; Schneider & Enste, 2000). A study carried out by Burnett (2007).

The nutritional benefits received from consumption of vegetable production by the customers were an added advantage in sustaining the businesses in the smallholder

informal markets (Hermann, 2001). Through participation in the smallholder informal markets, the vegetable vendors acquired skills on consumers' preferences and buyer behavior patterns (Walsh, 2010; Pecker and Sommer, 2011; Banik, 2011). Therefore, the smallholder informal markets were perceived as "*a blessing in disguise*" for the majority of the rural households in Kenya, it provided the low skilled, but active labour force with employment opportunities (Charmes, 2012). The lack of the formalization of the informal sector resulted in government revenue reduction, collapsed the formal sector and increased corruption. The informal businesses were considered a crucial source of income to people who otherwise might not find employment in the formal, regulated sector. They were especially important to women, who in more than half of the countries with 65.2 percent are present in higher numbers than men in the informal sector. The informal economy is also an important source of employment for women.

The ILO (2018), estimated that in the developing economies, 93percent of women workers were informally employed. This was the opposite of what was seen in the advanced and emerging market economies, where it was a greater source of employment for men in the informal sectors (Spatz, 2013). Although the informal sector made up a significant portion of the economies in developing countries, it was sometimes stigmatized as troublesome and unmanageable. However, the informal sector provided critical economic opportunities for the poor and had been expanding rapidly since the 1960s. The informal sector was a burden on the formal economy because of tax evasion that results in greater tax burden on the official sector; that was, a negative impact that occurred in the form of less expenditure on public utilities, increased taxation, lower productivity and economic growth in the short run.

After all, the informal economy provided low-cost labour, inputs, goods, and services to both formal and informal enterprises, and low-cost goods and services to the general public, especially poorer households. In many contexts, informal enterprises and workers were less productive than formal enterprises and workers. The root causes of informality included elements related to the economic context, the legal, regulatory and policy frameworks and to some micro level determinants such as low level of education, discrimination, poverty and, as mentioned above, lack of access to economic resources, to property, to financial and other markets (Perendia, 2017)

The informal sector allowed them to work fewer hours and combined their income-generating activities with domestic household tasks. Gerxhani (2019) aimed at assessing the main causes of informal sector in Zimbabwe since independence through literature review. The paper discovered that internal migration (rural to urban), economic slide, wealth creation and tax evasion were some of the main causes of the rapid growth of informal sector and then subsequent decline of the formal sector, in Zimbabwe. Formalization of the economy results in government revenue reduction, collapse of the formal sector and corruption; while identified benefits included creation of employment, as well as lower costs of commodities on household livelihood. In sub-Saharan Africa, the informal sector, contributes almost 55% of the subcontinent's gross domestic product.

Castillo (2010) analyzed the effects of informal labor markets on the dynamics of inflation and on the transmission of aggregate demand and supply shocks. In doing so, it incorporated the informal sector in a modified New Keynesian model with labour market frictions as in the Diamond-Mortensen-Pissarides model. The main results showed that

the informal economy generated a "buffer" effect that diminished the pressure of demand shocked on aggregate wages and inflation. Finding that is consistent with the empirical literature on the effects of informal labor markets in business cycle fluctuations. This result implied that the economies with large informal labor markets the interest rate channel of monetary policy was relatively weaker. Furthermore, the model produced cyclical flows from informal to formal employment consistent with the data. Tobbias (2016) examined the role of individual wages in the informal market of unemployment and inflations dynamic in Deutsche. The study showed that different definitions of the informal sector that had been put forward informal sector was identified as 'small scale, self-employed ventures, with or without hired workers, typically at a low level of organization and technology, with the primary objective of generating employment and incomes. The existence of the informal sector, contribution immensely to the gross domestic product was not by coincidence. Kai (2015) studied the informal sector in a regulatory framework such that informal sector emerged as citizens needed to run away from the government regulation especially tax system, licenses and all forms of levies.

Informality was therefore analyzed in the regulatory framework context where citizens engage in informal activities in order to avoid government regulations and taxes, the aim of the informal sector to be the provision of subsistence to families but offer potential for employment and economic growth. With this liberalization some informal sector perpetrated the market, for instance, in the transport sector. Liberalization allowed small players to enter in the transport industry where operator's licenses for commuter omnibuses could be easily obtained.

Smallholder informal markets faced problems of capital and the main problem faced by the vegetable vendors lacked of access to credit for capital (Bhowmik, 2015). They depended mainly on loans from friends, families and money lenders to run their vegetable business (Bhowmik, 2012; Kebbed, 2014; Arjun, 2018; Saha, 2011). The unavailability of credit was primarily because there was no legal status for vegetable vendors in the informal economy (Becker, 2014). According to Bhattacharyya (2001) capital was an essential requirement to start any business. Capital invested in the vegetable activity varied from vendor to vendor depended on factors such as the type of products they sold and the economic condition of a household. Muiruri (2010) also stated that capital was the most important asset when starting a vegetable business and it was noted that street trading or vendors did not require any special skills, and neither did it need expensive cost of living standards.

Many smallholder informal markets had no access to formal credit and in reality a few financial and credit financial institutions were willing to provide financial and credit facilities to small enterprises, particularly street vegetable vendors. The reason for this was that vegetable vendors were perceived to be risky clients. Since they did not have permanent premises, nor secured tenure on location of their business or even collateral, it was not easy to follow them if they defaulted loan servicing thus caused the banks to be reluctant to lend them money. They were needed for initiating the business, and later, for running and expanding the business (Saha, 2011). According to Agnello and Moller (2014), a low level of capital investment was needed in the informal business. Personal savings, family or friends, money lenders, banks or co-operatives, organizations, retailers and wholesalers were not the main credit sources for smallholder informal vendors.

Money lenders contributed to the nurturing of the small holder informal sector by supplying the vegetable vendors temporarily with money at very high interest rates. This happened when small holder informal sector established their businesses or when they found themselves in a difficult financial situation. An example was when their goods were confiscated and they had to pay to get them back (Andreassen & Tribhuwan, 2013).

In a study of food vending in Guwahati India, Bhattacharyya (2015) found out that about 8 percent of small holder informal sector vendor took loans from moneylenders at a high interest rate and that bank loans were not popular primarily because of complicated paperwork and procedures. Saha (2011), however, states that most of the vegetable vendors preferred to borrow from wholesalers than moneylenders, since they did not charge regular monthly interest rates.

According to Agnello and Moller (2004) vegetable vendors bought goods by paying half of the amount immediately and the other half after selling them, or on credit. This meant that they paid higher prices for goods because they did not have sufficient capital to pay upfront. Most small holder informal sectors sold items that required little initial capital such as vegetables. Again, Shah et al. (2010) stated that not much capital was required when starting a vegetable vending business, because the majority of the business is based on borrowing. The vegetable vendors or vegetable sellers require financial help from the money vendors. Smallholder informal market such as vegetable vendors lacked collaterals to secure formal loan schemes from the financial system. Their limited funds available and retained earnings from their operation were too small for rapid expansion.

Short-term business crises could displace vendors and place them into financial debts and consequently halted their operation (Kartik & Srikanta, 2017).

In addition, Agnello and Moller (2014) stated that the level of poverty that smallholder informal market vendor lived in was illustrated by the fact that few were able to pay for their goods in cash in advance, as they did not have sufficient capital. In a study of informal trading of the inner city of Johannesburg, Tissington (2019) identified a lack of access to capital and business management skills, access to meaningful credit that vendors were faced with. In his findings, no vendor had ever received a bank loan since they lacked documents that the bank required in order for them to access the facilities. According to Acho Chi (2002) vendors had difficulties acquiring institutional loans. Vendors' monetary problem were associated with the type of businesses they operated, their inability to acquire and repay loans (Arjun, 2018).

In a study of Parker and Sommer (2013) on informal market operations in India, stated that a bank provided vegetable vendors with microcredit, and bank was owned by self-employed women who were the shareholders. Its role was to provide microcredit loans to women partnership who were establishing their informal markets businesses. Therefore, organizing women into financial institutions models for their saving would be a faster way for them to access loans at reasonable interest's rates than from the banks (Bhowmik, 2012; Jhabvala et al. 2013).

Arora and Taore (2010) indicated that most informal sectors had no access to credit from formal financial institution, Pricing and displaying of the vegetables in the market, vendor prices of their products were lower than those sold in the established markets

(Wallace, 2001; Arora & Taore, 2010). The prices of the street vegetables vendor and food were low and the urban poor benefit from the same markets (Bhowmik, 2015). Street vendor compelled to sell their products are low prices at the close of day because they lacked storage facilities. Vendors do not want to carry back the remaining stock which was not bought and then have to come back with them the following day (Banik, 2011).

The street vegetable vendors were viewed as a social enterprise phenomenon, they were there because they offered goods at cheaper prices compared to retailers in the formal sector (Zitter, 2017). There was no rule on pricing of the vendors' vegetables. However, a vendor had to bear in mind that the consumers would be pleased if they could save a little when buying from them instead of in retail store.

According to Ngiba et al. (2019) informal market owners who bought the produce directly from the farms in collaboration with each other. The vegetable stock was fresh, ensured that the fruit and vegetable vendors typically displayed fairly priced goods that consumers were willing to purchase (Mehta, 2006). Most of the time the vendors negotiated the prices and quantity of the product sold for a fair profit mark up. According to Kapila (2009), in the pricing process, vendors extracted as much consumer surplus as they could, rather than charging uniform and competitive prices. The informal business required some basic tools such as baskets, knives, scales, and an umbrella to protect the vendor from the sun, and sometimes a table to display the goods and keep them above the muddy dirty floor of the market (Agnello and Moller 2004). Vegetable vendors used different marketing strategies and structures to display their commodities. Shackleton et

al. (2019) noted that some informal market vendors piled their commodities such as onions and tomatoes and use measuring equipment in the form of plastic bags, tins and baskets. The structures used for displaying commodities include tables, racks, wheel burrows and handcarts. Other vendors display their goods on the ground, on mats or bags, while others simply carried their commodities in their hands and on their shoulders. There were also those that hang their goods on a tree (Mitullah, 2014). It was very common to encounter situations where the vendors displayed their vegetables on the ground on sheets of paper or fabric.

Due to the harassment that vendors encountered from the police, they carried their goods in travelling bags and just display one or two samples on the stall or box (Manganga, 2017). Van Rooyen et al. (2016) stated that while formal retail outlets used weight to price their vegetables, informal traders such as vendors used numbers and size. This made it difficult to compare prices asked by vendors who sold similar products but most of the informal markets kept their prices constant so as to avoid misunderstandings with consumers.

Vendors' organizations existed in cities worldwide. In some countries such as Ghana, vendors were organized according to the urban space in which they sold their goods, such as a particular block, market or area. Other vendors were organized according to the products they sold (Motala, 2018). However, the majority of informal markets did not belong to any vegetable vendor's organizations or associations, while others belonged to several associations with no relationships that would speak for them. The majority of

informal markets workers worked in isolation without any knowledge of existence of associations that could address the pertinent issues experienced in the markets that were worth addressing.

In Uganda, vegetable vendor had the highest number of businesses, with 19,301 vegetable vendors who operated in the Durban area alone (Skinner, 2018). Informal Trade Management Board (ITMB) was formed in Durban in 1995. Its objective was to create a united voice of street vendors who would engage with local government authorities, to improve working conditions and address problems they experienced. Market association established in 1992 and whose objectives were to empower the vegetable vendors through training opportunities, trade fares, exhibitions among others, these openings provided the opportunities for them to grow in their trade.

According to Mitullah (2014), Tanzania had a strong culture of workers 'organizations. It was, however, difficult to organize street vendors partly because most vegetable vendors earned just enough to feed their families, and were therefore reluctant to take of their time to attend meetings. Because many vegetable vendors worked long hours and generate little income, they found it difficult to devote time to participate in the very organizations that would bring relief to their many problems. Some organizations struggled to build durable democratic institutions where everyone's voice could be heard (Motala, 2018).

Simopoulos & Bhat (2015) found out that vending activities were unhygienic and contributed to the pollution in town and city streets. They stated that street vegetables were always exposed to dust; vehicle fumes, flies and insects, and few vendors take precaution to protect their products by covering them. Further stated that a similar study

had been conducted in India which revealed that reasonable amounts of filth, dirt or dust were observed in the street where vegetable vendors' operated their businesses. Although, the vegetable vendors' were also found satisfactory from an appearance, smell, taste, edibility and freshness point of view, However, Bezemer (2016) stated that vendors' vegetables were low in quality.

The accumulation of waste gave rise to the proliferation of vectors such as rats, flies and mosquitoes. Vegetable vendors caused traffic accidents and increased the levels of vehicle-generated air pollution, vendors also generated a lot of noise with their announcements and they together with their customers often left garbage on the streets (Bromley, 2016). The most evident health and safety risks or problem for street vegetable vendors included traffic accidents, inhaling vehicle exhaust fumes, fatigue due to long hours and potential exposure to crime. Vendors were often poorly informed on the risks which they were exposed to and did not know how to reduce them. They often worked in open spaces with heavy traffic with lacked access to sanitary installations, clean drinking water, electricity and garbage disposal

The vegetable vendors also experienced other challenges in the smallholder informal markets such as; lack of access to credit facility (Kebbed, 2004; Renner and Pegler 1997; Jensen, 2003; Saha, 2011; ERIA & OECD, 2014), lack of access to market information, low basic skills on entrepreneurship, poor infrastructure, costly transport transaction (Omamo, 1998a; Helberg and Tarp, 2002), and frequent loss of businesses, emanating from illegalities (Parker and Sommer, 2011).

Studies by Chen et al. (2004); Skinner, (2008); Karthikenyan & Mangales waran, (2013); Mitullah, (2003); UN-Habitat, (2006); and Burnett, (2000), indicated that laborious procedures of acquiring trading license, demolition of temporary structures and demand for bribery from informal traders bought their freedom, often, reverted their hard-earned effort to nothing as poverty level increased among the vegetable vendors' households.

A study done in India by Arjun (2018) stated that vendors were to pay the imposed heavy fines and harsh punishment if they were found without licenses or contravening regulations. Saha (2019) most of the street vendors come from the rural areas in search of better paid jobs in the urban areas. They became street vendors because hawking vegetable was one of the easiest forms of earning a living as it required minor financial input as starter capital with no strict rules for entry. Food vendors were the main trade group and largely depended on non- shop outlets, and within this group fruit and vegetables played the most important part for business set ups for rural households' (Hermann, 2015).

2.2.10 Summary of the Literature

From the forgoing literature review, it was evident that globally countries including Kenya have experienced rapid population growth. Urbanization through the informal sector was the way forward as majority of the population was vulnerability was exacerbated by low literacy level, unskilled and lack access to credit facility. Awitije, (2016); Nkululeko et al, (2014), found out complexities faced by street vendors in acquiring credit facilities were mainly issues based on lack of collaterals and un-predictive investments, often below economic thresholds. In Africa countries such as Nigeria, Zambia, South Africa, Uganda, Tanzania and Kenya, had been surrounded by street vending populations and vegetable vending was one of the most popular activities within the informal economy that supported women and vulnerable groups of people in need of alternative income (Awitije, 2016; Muiruri, 2010; Kamala, 2007; and Ndhlovu (2011) as indicated by posits over the years.

Studies by Bell & Loukaitou, (2014), and Adhikari, (2011) on street vending was a survival strategy which conferred financial independence upon its actors. However, the existing poor working conditions of street vendors, contributed to the minimal earning but provided reasonable profits. Turner & Laura, (2012), showed that income generated in the smallholder informal markets contributed to daily expenditure for family livelihood needs, as well as support the children's education, medical bills and welfare needs.

The micro-enterprises initiated by the vegetable vendors in the smallholder informal markets was motivated by households' need for income and food. The street vegetable vendors' households contributed directly to the overall level of economic activity in a

country but their contributions were under estimated and only a few of the actors' incomes were recorded. Majority of the vendors feared the local authorities and were always ready to take cover even if the government wanted dialogue with them. Their officials took advantage of playing the double role of protection and creating fear. The double edged management styles has had a fair share in contributing to stalemates in the quench to improve the work environment. Skinner (2018) also stated that individual incomes of vendors were often low, but research demonstrates that cumulatively those activities were worth a lot of money. The government cannot do away with the informal market and vice versa, a mutual work agreement need to be developed for the sector. The government knows that majority of her productive labour is idle and the informal sector provides a small window of hope in creating employment opportunities. The government is cognizant that a hungry population can be lawless, rowdy and destructive, paralysis all the government development agenda. It is therefore important for the government to consider all the areas of vulnerability among the street vendors and begin to address them in hope of reversing the growing large unemployed population that is a time bomb.

The that the vegetable vendors mainly raised complain were on seasonality that contributed to drought, floods which caused shortage of vegetables in the market but in good seasons glut contributed high vegetable supply with low prices and that culminated to low household incomes. The weather played a key role on households' income and living standards. In the dry season vegetables sales plummeted and households' incomes increased. The government support both in the agricultural sector and in vending is key to the improvement of the livelihoods of the majority of the population. The vulnerable population needs a hand to pull the up from their destined position that was occasioned

by calamities. Vegetable sector would thrive best with irrigation facilities that would ensure supply of vegetables all year round. The vegetable vendors can also feed the formal sector who have the power access profitable export markets overseas.

The second issues of vulnerability that was based evictions and to prevent the forced removal of vegetable vendors from their selling points, street vendors need streamlined registration procedures to enable them to pay their daily cess, taxes and other statutory deduction that would provide better work security and income in the long run. The transition to formalization should be gradual like in the case of acquiring a semi-legal permission to sell his or her products in specific locations and time by the local authorities. Those challenges faced by the vegetable street vendors which were routine such as harassment and eviction from their sites by authorities and traffic police would be minimized. The published Kenya Gazette Supplement Senate Bills (2019) on street vegetable vendors typically lacked legal status and recognition of the street vendors social economic activities. Consideration on their contribution to households livelihoods and government revenue were totally lacking, further pushing these economic entities to the dogs. The street vendors are better off paying taxes and begin to benefit from public services that government who provide for any employer/ employees. Vendors are Kenyan's with equal rights to carry out legal businesses in their country and earn a decent life style. The frequent harassment and eviction from their selling place by local authorities or competing shopkeepers is in bad taste for a community of people struggling to put food on their table. Street vegetable vendors pay taxes on goods consumed, pay rent, educate their children, and pay all other services as can be instituted by the government. It is therefore, in bad taste that they paid sizeable part of their income in the

form of bribes to the authorities, in order to keep selling in the streets, but were still treated as aliens (Bhowmik, 2015).

2.2.11 Knowledge Gaps

From the literature review, the research found out that smallholder informal markets have been enhancing rural households' livelihood over the years. Many consumers appreciate the convenience of purchasing vegetables from informal vendors including the urban poor, office workers and tourists. In Kenya, informal market vending is a widespread activity notwithstanding its absence of formal guidelines for operations. Street vegetable vendors are an emerging vibrant part of the smallholder informal markets which provides economic activities to the many underemployed members of rural household. The general unemployment and under employment from small scale agricultural producers is on the increase, where women are the most disadvantaged with the responsibility of providing food for the household. The informal sector also offers employers opportunities of hiring workers on part time basis with the motive for less pay, the employees working under these condition supplement their incomes through the informal markets.

The rural households have been engaged in vending of foods such as cereals and legumes but the vegetable vending is an upcoming vending opportunity which many rural household members are now engaging in, particularly women. The statistics on contributions of the smallholder informal markets on several food system vendors selling cereals and legumes have been researched. However, research on contribution of smallholder informal markets on vegetable vendors 'households' livelihood is scanty, yet the sector provides employment for the very bottom of the pyramid population in the rural areas.

The work environment where vegetable vending was carried out were marred by various challenges of poor sanitation, pollution, unsafe drinking water that affect the quality of vegetables before they get to the hands of buyers. This, affected the sustainability of rural households' income and food availability (Duryuea, 2016). Research showed that it had been difficult to map, document, and empower all vegetable vendors in informal markets due to their mobile nature (Bhatt, 2018). It was difficult to estimate the number of vendors, including vegetable vendors working in the smallholder informal markets. The unavailability of data on the numbers of street vegetable vendors had contributed to the challenges that most researchers experienced when carrying out studies in order to understand the contribution these vendors' made to their households' livelihoods. Rural households, especially women, were vulnerable to income shocks, and prone to poverty and hunger which was aggravated by a lack of access to productive assets; yet, they had the role of providing food for their families. The challenges of inadequate provision of food and lack of income by rural households was similar to that of urban slum dwellers. Studies by Huyer and Westholm (2017), indicated that vendors were not only an urban phenomenon but cut across for the poor population that reside in villages and there are numerous vendors trading along village crossroad.

Many rural household members practiced vegetable vending in the smallholder informal markets, it was evidenced that in Ahero, Awasi Onjiko and Wawidhi wards; where Ahero, Ayweyo and Kochogo markets were operated, women move to the market place from early afternoon hours to sell vegetables for income and food. The emerging enterprise is complementing rural households' incomes that have suffered for several challenges that resulted to low agricultural productivity, and therefore poverty. therefore,

a formidable social economic activity that contributes the vegetable vendors' households' livelihoods. It was important to find out the contributions the informal markets made to the rural vegetable vendors households livelihoods in Ahero ward, Nyando Sub County of Kisumu County, Kenya.

Besides, the paucity of literature on the contribution of the small informal markets income level of vegetable vendors' households' livelihoods in rural areas, forms the basis of this study. Since the smallholder informal markets play a significant role in creating opportunities for social economic activities in the economy of rural areas with the need for alternative source of income to support the growing population. The research findings provided opportunities for drawing conclusive evidences that set clear causal relationship between the smallholder informal market and the income levels and food of rural vegetable vendor's households. The opportunities created by stakeholders who participated in those markets, also created job opportunities as well as the assessment of the challenges posed by trading environment to the households of the vendors that affected their business growth and peoples' health. The findings indicated the contributions made to the households' livelihoods.

The research findings are to contribute to information that will help to address the policy gap in the protection of informal markets and the improvement of food systems in the informal markets. Studies have noted that most people in both rural and urban areas rely on the informal markets for their food needs. Notwithstanding, this understanding, studies on the influence of vegetable vendors from rural households on income and food availability were however limited by the assumption that rural areas are self-sufficient in terms of food supply. The study specifically examined the contributions of smallholder

informal markets on income levels of vegetable vendors' households in Kisumu county, Kenya; the contributions of smallholder informal markets on food availability of vegetable vendors' households; the effect of smallholder informal markets on well-being of vegetable vendors' households and the effect of smallholder informal markets on vulnerability and risks of vegetable vendors' in Ahero ward, Nyando Sub county, Kisumu County, Kenya.

2.3 Conceptual Framework

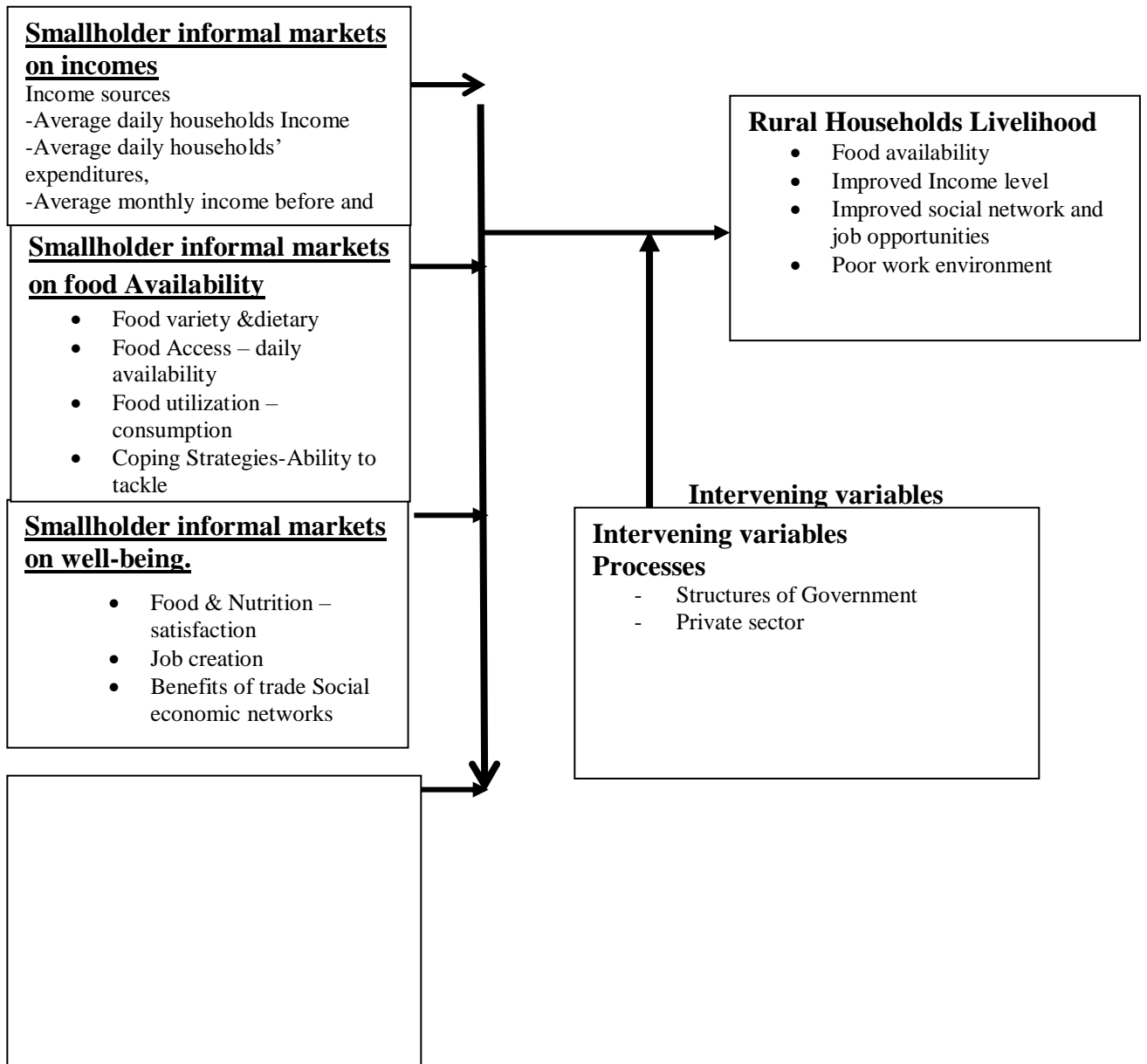


Figure 2.1 Conceptual Framework

Source: (Researcher, 2022)

From Figure 2.1 above, the conceptual framework explained the relationships between the independent variables (small holder informal markets on incomes, small holder informal markets on food security, small holder informal markets on well-being and

smallholder informal markets on work environment) and the dependent variables (household livelihood). The livelihood framework consisted of human capabilities, assets and social economic activities that were needed as pre-requisite for development. The sustainable use of the various capitals that was used sustainably that helped the vegetable vendors' households to meet their basic needs, their well-being indicators such as the social interactions that contributed to increased availability of social capital and created job opportunities without over exploitation of their natural resources for future use (Scoones, 1998; Serrat, 2017). Vegetable vendors who were entrepreneurs by virtue of carrying out economic activities enabled the study to apply the economic theory in the determination of income, profit and households' expenditures. The vending activities contributed to households' food availability in terms of quantity, dietary and coping strategies incase households experienced shocks due to production risks. The social interaction theory described the outcomes of vegetable vendors' involvement with several actors in the value chain. These interactions created possible job opportunities, social capital as credit facility and several different benefits to the actors such diversification of enterprises and identification of new product outlets. The vulnerability theory described the nature of human beings at work place and the need for protection to sustainable continue work and contribute to households' livelihoods' positively (Ntifo-Siaw, 2011). The research study was majorly based on the economic theory, while the unit of analysis was households of street vegetable vendors drawn from Ahero, Kochogo and Ayweyo markets in Nyando Sub County, Kisumu County, Kenya. The independent variable was the smallholder Informal Markets while dependent variable were the street vegetable Vendors. Smallholder informal markets were characterized by Vegetable vendor

characteristics: demographics–Gender, age, Household head, household size, Level of education.

Smallholder informal markets contribution to vegetable vendors' households' livelihoods was determined by the following indicators; (i) Income was determined by; Income sources, average daily households Income, average daily households' expenditures, average monthly income before and after (ii) Food availability was based on food variety and dietary, food access , daily consumption and coping strategies to tackle shock. (iii) Wellbeing determined by food & Nutrition satisfaction, job creation and benefits accrued from trade and through social economic networks. While vulnerability was determined by the assessment work environmental risks, vendors' safety in terms of health and food safety for consumers. The way vendors mitigated their vulnerability such as shocks, seasonality and critical trends was equally important

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives brief and precise explanation about the methodological tools that the researcher used to accomplish the study thereby achieving the objectives. Henceforth, the chapter outlined the methodological approach that was applied in the study. The following sections were considered in research methodology; research design, location of the study, the study population, sample size, sampling procedure, data collection procedure and data analysis. The questionnaire was developed for quantitative data collection while the Key informant schedules were used as guide in obtaining qualitative data. The chapter also explained how validity and reliability tests were conducted through a pilot study.

3.2 Research Design

This study used a descriptive survey to research design on vegetable vendors in Ahero markets. In descriptive research design, data collection procedure, used questionnaires to collect data from the sampled group of people and identified, similarities/ dissimilarities in social characteristics, trends in individuals attitudes, behaviours and opinion (Creswell, 2009).

The descriptive survey design enables the researcher to obtain detailed information on individuals social economic activities, opportunities that were availed by their processes and challenges of work environment (Mugenda and Mugenda, 2003; (Okoth, 2012); (Aggarwal, 2019). The key informant interview (KII), provided the qualitative data that provided the perceived experiences of smallholder vegetable vendors on contribution

received from the smallholder informal markets on their household livelihoods. The qualitative data was used to triangulate the qualitative for moderation and authentic reporting of the findings (Creswell, 2009).

This research design was appropriate for the study, determining the vegetable vendors current activities in the smallholder informal markets and concurs with study by Nassaji (2015). The information from the vegetable vendors operating in Ahero, Kochogo and Ayweyo in Nyando sub county, Kisumu County, on socio-economic activities. The information generated include; daily average income and expenditures of the households, food availability and dietary diversity, employment opportunities and work place constraints. The descriptive survey design also reduced the time and resources constraint.

3.3 Location of the Study

The study was carried out in Nyando Sub county, Kisumu County, Kenya. The selected wards were Ahero, Onjiko Awasi and Wawidhi in Kisumu County, which are found in the Agro-Ecological Zone (AEZ 4). The landscape of Nyando sub County is on a plain and often suffers from floods. Being on the rain shadow it often experiences moisture stress and crop failure is common leading to low agricultural productivity as many households suffer some sort of hunger and poverty.

The rural communities living in the identified study area was considered as densely populated and largely dependent on agriculture as the main occupation. The increased food shortage, unemployment and lack of income, among the rural households who depended on agriculture alone prompted them to shift part of productive labor into the smallholder informal markets for supplementary income. The smallholder informal

markets were Ahero, Ayweyo and Kochogo which are found in Ahero, Wawidhi and Onjiko Awasi wards in Nyando Sub County, Kisumu County. To the north it borders Nandi County, to the south Rachuonyo sub county, to the west Kisumu East and to the East Kericho sub-county (GOK, 2009). Nyando sub county total land area measures 1168 Km² and a shoreline along Lake Victoria covering 71 Km².

Most of the land lies on the same altitude of 1,134 m above sea level which was the same altitude as that of Lake Victoria. The population was as at 210,701, and population density was 488 Km² as was projected for the year 2020. The main occupation of the households was mainly smallholder farming of crops and livestock. The crops grown include rice, maize and sugar-cane and indigenous vegetable. The livestock kept were mainly local breed of cattle, goats, sheep and poultry. A few people were also involved in fishing in the lake and also farming fish in the fish ponds. The adversities of climate change had contributed to the farming households desire to engage part of their labour time in vending to mitigate food unavailability and inadequate income that is prevalent among them (GOK, 2009).

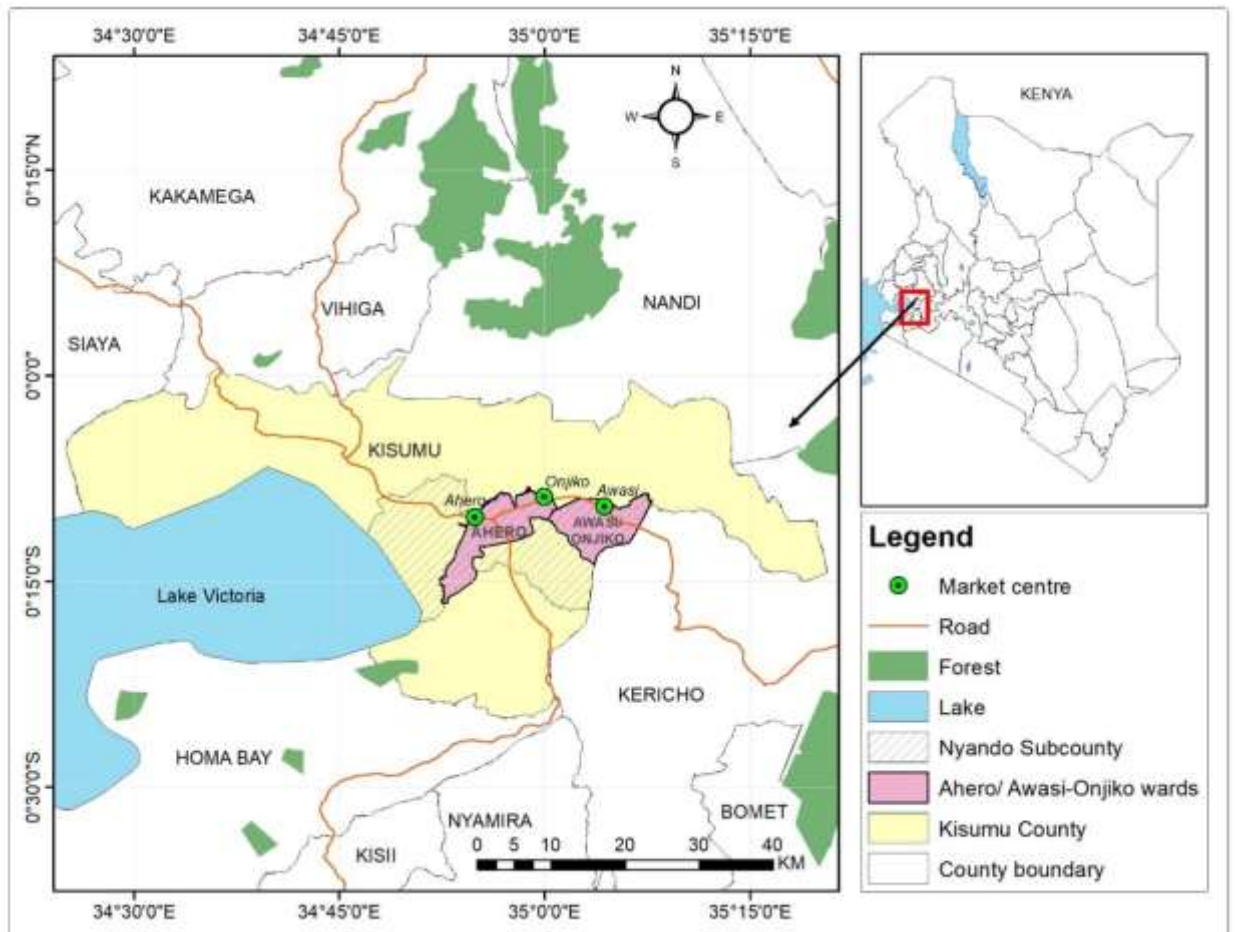


Figure 3.1: Map of Kenya showing the study Markets;

Source: KALRO-NARL GIS LAB

3.4 Target population

The target population was drawn from Ahero, Ayweyo and Kochogo smallholder informal markets. The area selected were by size and informal nature within Ahero, Wawidhi and Onjiko Awasi wards. The respondent’s name was provided by the market representatives who availed the names of the street vegetable vendors from their group list. In each market, the names of the vegetable vendors name were provided by the chairpersons in each of the smallholder informal markets from the Ahero and Wawidhi wards in Nyando Sub County, Kisumu County. The lists presented by all the market

representatives had a total population of 61 vegetable vendors (census population). The 3 chairpersons representing vendors in different smallholder informal markets and the 3 census collectors were the KII that provided more in-depth information.

3.4.1 Target population

The target population for research study was that of street vegetable vendors drawn from a subset of food systems which consisted of cereals, legumes and vegetables. Studies on vending cereals (maize, finger millet and sorghum) and legumes (beans) as staple food in Kenya and East African countries had been conducted but there existed scanty literature on contribution of smallholder informal markets on rural vegetable vendor households' livelihoods.

3.5 Population/ Sample

The research design used the population, this were all the individual vegetable vendors participating in the Ahero, Kochogo and Ayweyo smallholder informal markets were purposively identified from the 3 smallholder informal markets by chairpersons representing this group of market actors (market list and those proposed by other actors in the same trade). The chairpersons representing the vegetable vendors in those markets provided list containing the names of the vegetable vendors, consisting of a total population (census) of 61 respondents. The 3 chairpersons were selected from the 3 markets representing vegetable vendors in the smallholder informal markets as KII. Another 3 KIIs, census collectors were also selected, giving a total of 6 KIIs.

The purposive selection of the vegetable vendors operating in the smallholder informal markets in Kisumu County was based on the following criteria: vegetable vendors'

availability, performance of daily economic activities, substantial trade volumes in vegetable enterprise, existence of demand for the vegetables by customers and having operated vegetable vending for at least one year.

3.5.1 Sampling Techniques

The target group consisted of street vegetable vendors who through purposive sampling method of obtaining names vegetable vendors from the market representatives lists who are chairpersons of the vegetable vendors from Ahero, Ayweyo and Kochogo smallholder informal markets in Nyando Sub County of Kisumu County. Table 1, showed that that the questionnaires (Appendix 1) were administered to 61 respondents who were street vegetable vendors and 6 KIIs interviews were guided by the KII schedule (Appendix 2).

3.5.2 Sample size

The entire population (census) of 61 vegetable vendors were selected from the three smallholder informal markets and 6 KIIs were also interviewed whose information further was used to enrich the findings.

Table 3.1: Sampling frame from the three smallholder informal markets in Nyando Sub County, Kisumu County

Respondents	Population	Sampling size (census)
Street vegetable vendors	61	61
Market representatives (KIIs)	3	3
Market cess collector (KIIs)	3	3
Total population interviewed	67	67

The purposive sampling technique was used in the identification of street vegetable vendors who operated their businesses from early afternoons on daily basis. These vendors were those who had practiced vending for at least a period of one-year experience of continued trade in the smallholder informal markets. This was in tandem with findings of Lawrence et al, (2015). The KIIs were selected for the sole purpose of the role they played in in these markets. These market leaders were vast with happenings in the smallholder informal markets, included were their knowledge on social economic activities coupled with issues on the actors' personal growth. They were able to also point out on these vendors' areas of vulnerability and contribute on issues of government intentions for the future concerning these markets.

3.6 Data Collection Methods

The researcher used structured questionnaires during the survey in generating quantitative information based on thematic areas; social characteristics, income and expenditures, food availability / security, well-being (employment and social economic networks) and vulnerability (analysis of the work environment) for the vegetable vendors' household in Ahero markets of Kisumu County, Kenya. The focus group discussions were organized in grouping of seven participants, to generate the qualitative data.

3.6.1 Pilot Study

The questionnaires were piloted in Kapsoit market in Kericho county, their administration was to vegetable vendors with similar characteristics to determine their reliability and validity and the procedure concurs with studies conducted by (Orodho, 2003). The 10 people who were interviewed represented approximately 10% of the study respondents and was in accordance with Melanie et al., (2018) studies on guideline for pilot study. The results from the pilot study were not included in the findings of the study.

Capacity developed the questions for the questionnaire and schedules to KII discussion

3.6.1.1 Validity of the questionnaires

Validity of the instrument was to ensure that all the information that was require for the study was captured (Cohen and Manion, 2012). The validity of research instrument used is critical in all studies and the acceptance levels depend in the logical design of the tool based on topic relevance, systematic development of the tool , experience, reasoning and professionalism of the researcher. These instruments were presented to a small team of three social scientists and a biometrician and with the help of supervisors from Kisii University to probe for expert judgement. The researcher presented the questions more clearly and logically for better results. The scientist contributions were used to make correction which enriched the quality of the instruments by in-putting additional information to generate the appropriate responses. The researcher visited the market leaders and the village elder in Otho market found in Awasi/ Onjiko ward, Nyando sub County for purposes of explaining the intended pilot study on vegetable vendors in the area. The recruited vegetable vendors were gathered at a farmers' home near the market

center. Introduction by the ward administrator was done and the vendor's group leader introduced the members. The research team introduced themselves, then the researcher explained what the study was all about and sought their consent and assured them that the study was purely academic and their information was to be treated confidentially. The research instrument was tested using 7 people who were interviewed using the survey tool prepared, the questionnaires were administered and responses recorded, areas that lacked clarity noted and sentences that needed review corrected. The KII schedule was administered to 3 market leaders in the market. The refined research instrument was presented to the research team for reviewing and the re-testing was done with the same population.

3.6.1.2 Reliability of the questionnaire

The questionnaire was pre-tested by administration to 7 different vegetable vendors from Kapsoit sub county, Kericho County for consistency. The interviewees responses showed that information was understood in a similar manner and this is consistent by study carried out by (Eyisi D., 2016 and Bryman (2008). The researcher maintained that reliability was observed by ensuring that the language was simple and understood by all and this was demonstrated during data collection through the pilot study. The questions asked were clear, simple and easy to respond to. The researcher allowed as many possible questions to be asked in reviewing the questions to accommodate all the respondents. The outcomes from the pre-test and re-test formed the content of reviewing the instrument to thematically address the specific objectives of the study.

3.6.1.3 Validity of the research instrument

The validity of the research instrument was to measure the extent of the content reliability in correlation with the concept it had been planned to measure. The validity content index (CVI) obtained from the study was 0.79 which was within the expected range of 0.70 and above (Caring J Sci, 2015). To calculate the content validity index, the formula used was;

$CVI = \text{Total number of valid items} / \text{Total number of item presented}$: therefore, $CVI = 39/49 = 0.79$

3.6.1.4 Key Informant interviews (KII)

A Key Informant schedule was prepared to gather information from the smallholder informal markets with the following thematic areas; why the rural households joined vegetable vending, average daily volume of trade, daily amount of money invested, income generated daily from this venture, average quantity of vegetable sold daily, daily income generated. Visa vi the daily items bought for household use and average expenditures, savings made, the average number of people joining the smallholder informal markets and challenges that affected their businesses. Six vegetable vendors formed the KII group and it was established that vegetable vending was an equal source of income, vegetable vendors' households accessed a wide variety of food in quantity and quality, they paid school fee for their children, some paid KES. 500 to National Hospital Insurance Fund and together with family members under 18 years old benefited from affordable medical services. The underemployment existing among rural households depending on farming was partly addressed by opportunities created in these markets. Vegetable vendors' interactions in the smallholder informal markets enriched their social networks through welfare groups and through their economic activities that is very competitive, thus improved confidence, self-esteem and bargaining power let alone

growing strength in taking loans. The results from the study did not form part of the main research study as it was administered in an external market but within the study sub county and it has not also been included as part of the respondent.

3.7 Data collection procedure

The researcher sought for research permission from the School of Arts and Social Science (SASS), to apply for the research permit from the National Commission of Science, Technology and Innovation (NACOSTI). The research permit was accorded and the researcher proceeded to the field. The researcher visited the 3 smallholder informal markets of Ahero, Kochogo and Ayweyo. The researcher looked for the market representatives and introduced herself and the intended research. The researchers requested them to provide the list of the vegetable vendors who were carrying out vegetable businesses in the market and asked for permission to interview them using a structured questionnaire. The permission was granted and the questionnaire was administered, data was collected.

3.7.1 Data analysis and Presentation

The analysis of the data started with data coding, cleaning, organizing, presentation and interpretation. The data from the Excel data sheet was exported to the SPSS software. The close ended questions were analyzed by use of nominal scales, categories and frequencies by employing descriptive statistics using statistical package of social science (SPSS) version 24 and MS Excel. The data was analysed quantitatively using SPSS VER. 24 and results presented in form of means, frequencies, tables, figures and graphs. The qualitative data was analysed thematically, and presented verbatim.

3.8 Ethical Consideration

Ethical consideration was assured by observing the principles of ethics that is justice, beneficence, and respect. Official introduction of the research was done in offices before data collection. Before data collection respondents were assured of their confidentiality and anonymity and were taken through the purpose of the study. During the survey, the interviewer introduced himself/ herself the respondent and then gave a brief on the purpose of the research study was basically academic. The respondent's consent was sought for, before the interview was conducted. Once the respondent's accepted to be interviewed, the interview was free through face-to-face interview.

The study acknowledged by citation of all the reference material used cited the sources of information that were obtained from literature review. The document was subjected to plagiarism check.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTEPRETATIONS

4.1 Introduction

The Chapter presents the research findings obtained from the rural households on vegetable vendors who operated in the Ahero, Kochogo and Ayweyo markets in Nyando sub County. The analyzed data results, presentation and discussions were based on the specific objectives from the study. The results included the social characteristics of the vegetable vendors and the assessment of the contribution of the smallholder informal markets on; income levels; the food availability, the well-being and the vulnerability of the vegetable vendors' households'.

4.2 Questionnaire return rate

The listed names of the vegetable vendors were the total population. Those who responded directly to the question from the list of the respondents were 58 (95%). The 3 vendors who were not available were replaced by vendors from similar markets with similar characteristics within Ahero ward. The sample was the total population, worked with the census, adequate sample size.

4.3 Demographic Characteristics

The study presented the characteristics of respondents who were vegetable vendors who had operated their economic businesses in the smallholder informal markets for at least one year. Demographic information comprised of results based on; gender, age, marital, highest education and gender of the household head.

4.3.1 Demographic Characteristics of smallholder Vegetable Vendors

The study was interested in gender, age, marital status, highest educational level and gender of head of the household of respondents. The information was important in the authentication and validation of data in regard to the contribution of informal markets on vegetable vendors' households' livelihoods in Ahero and Wawidhi wards, Nyando Sub County, Kisumu County, Kenya. Table 4.2 represents summary of results for demographic characteristics of vegetable vendors as follow:

Table 4.1: Demographic characteristics of smallholder informal market vegetable vendors n=61

Demographic Variables	Categories	Frequency	Percentage (%)
Gender	Female	58	95
	Male	3	5
Household head	Male	25	41
	Female	24	39
	Both	12	20
Age (average years)	22	6	10
	32	15	24
	42	21	35
	≥ 52	19	31
Household size	Less than 3	13	22
	3-5	28	46
	6 and above	20	32
Education level	Primary	38	63
	Secondary	19	32
	Tertiary/ and above	4	5
Marital status	Married	18	29
	Single Never married	15	25
	Single Ever married	28	46

Source: *Survey data 2020*

Analysis in Table 4.2 above showed that 95% of the vegetable vendors were female compared to 5% who were male. The study result showed a clearly wide gender disparity in vegetable vending implying that it was dominated by the female. Vegetable vending among rural households being female gendered was most likely occasioned by characteristics of vulnerability like low literacy level, low investments and low incomes from the enterprise. The mentioned attribute may have contributed to their low access to credit facilities and even further exacerbated by patriarchal system which dis-empowered women in terms of access to productive assets. Similar results were observed by studies conducted by Croft et al. (2016) and Mutopo, (2014) who found out that women dominated informal trade for traditional vegetables in Africa.

‘The KIIs from all the smallholder informal markets, indicated that women’s dominance was attributed to cultural limitation of women access to production household assets such as land and livestock. The women performed both the productive and reproductive responsibilities within a family and hence they suffer from time poverty time are pressurized let alone being low-income earners as compared to men’. *‘There was a shared opinion during KII interviews that vegetable vending was more of a female business than for male, and alluded to community’s perception of vegetable vending as a female-based economic activity’*, similar to study by (Markhem, 2015).

Forty-one percent of the household heads were female, 39 percent were male, while 20 percent indicated shared roles. These results showed a considerable number of the household being female and a good proportion had shared roles. These results implied

that female played an important role in sustaining rural households' livelihoods. In the past most household were headed by male, but in this study there is shift from the convention headship as sources of economic and responsibilities by households' head change. As described by an KII participant:

“The high population growth in rural areas coupled with the birth of the County government, the change in climate that have affected farming systems have rendered rural households without adequate food nor incomes. The state of the households' livelihoods had been affected, and the household members had now dedicated part of the productive labour in the smallholder informal markets in search for of alternative incomes. Both men and women carry out off-farm activities. Most rural women specialized in vegetable vending to fit it with their households daily chores. They no-longer depended on the farm and their husbands to bring food home. The changing economy had changed household roles. Today women in the business world or those in formal employment, make critical decision because they had money, power to make decision” (Female KII, >30 years; Ahero market”.

‘Other KIIs from Ayweyo and Kochogo markets also agreed that the role of a man in being the head of a household was changing as women become more financial sensitive and concurs with studies by (Marius et al., 2022)’.

In male headed households of the vegetable vendors where both male and female shared productive roles, the household incomes were better than in the household which were female headed . Results for age revealed that 59% of vegetable vendors in the smallholder informal markets were from between 32-42 years and 31% were above 42 years. This showed that vegetable vending cut across the youth and the older population, providing employment especially for the women who had the responsibility to provide food for the family. This study contradicts with finding by (Croft et al. 2016) who found out that the average age of vegetable vendors was averagely 36 years with a dispersion of

7.6. That finding explained that youths and older people equally in the study area were engaged much in vegetable vending business.

Key Informant in Ayweyo smallholder informal market mentioned that vegetable vending was not a common practice among youths as majority preferred to engage in other activities like hair dressing and motorbike riding in rural areas. The Key informant, from Ahero market explained that: *“most of the vegetable business were done by women in their late 30 years, at this age there was need for them to support their households by caring for the family.”* Yet results from the survey indicated that the average age of most of the vegetable vendors from Ahero markets was 42 years which concurs with research carries out by Markham et al., (2022).

Educational level was an important indicator for the vegetable vendors in term of access to credit and management skills. Results demonstrated that majority 63% had attained primary level education, this was followed by 32% who had attained secondary education and a minority of 5% who had college educational qualification.

The study results showed that the majority of the vegetable vendors in the informal market had low literacy level that became a great impediment on the contributions of the smallholder informal market on vegetable vendors' households' livelihoods. Those results concede with data obtained from the study by Sagaya (2019), who found that 54 percent of respondents in his study had attained only primary school education while 45 percent of respondents had attained secondary school education and only 1 percent of respondents did attain post-secondary school education. That meant that vegetable

vending was an employment opportunity for households' members in particular women whose had low literacy levels.

Marital status of the respondent was key in understanding the type of support received at the household level. Majority 46 percent of the respondents were single but ever married this was followed by 29 percent married and 25 percent single and never married. This may have implied that majority of the vegetable vendors' heads were women and had to fend for their families.

Finally, 46% of the household size showed that a good proportion had a household size of between 3-5 members, 32% of the households had more than 6 members while 22 percent had less than 3 members in their households. Finding by Saganya (2019) showed that majority 84.5 percent of vegetable vendors had dependants who ranged between 1-9 household members with a mean of 3.3. These results showed that vegetable vendors had a considerable number of members relying on their support to attain sustainable livelihoods, the household dependency ratio was huge and could have reduced the living standards even if the informal markets made positive income contributions. Studies by Semazz (2020), indicates that households depending on their livelihoods from the informal markets acts as safety nets for the large non-working population. There is need for a deliberate move by the government of Kenya to review policies on informal economy and adopt a hybrid model that would contribute to the partial streamlining of the sector awaiting long term engagement solutions for the sector. The informal markets are a solution to rural landless households and a important economy for a wider population.

4.4 Informal Markets and Income Levels of Vegetable Vending Households

The first objective of the study assessed the contribution of informal markets on income level of vegetable vendors' households. The following information generated was on vendors' household preferred source of income, average amount of income generated daily from vegetable vending, household daily expenditure, and the increase in income before and after.

4.4.1 Vendors Source of Household Income

Respondents were asked to share information on the sources of income for their households. Results showed in figure 4.2, indicated that an overwhelming majority 100 percent indicated vegetable vending was their main source of income, it was followed by 66 percent who indicated that on-farm activities were equally important and thirdly, 63 percent preferred wage/salary and finally 44 percent indicated that spouse remittance/support was also valuable. This study showed that vegetable vending was an important contributor to household income, 100% of the respondents were in agreement especially from the point of earning daily wages. Mazhambe (2017) study found out that street vending in Zimbabwe was a major source of household income and an alternative source of income for women. Sangaya (2019) contradicted these results when his results showed that on-farm activities was a major income source for rural households.

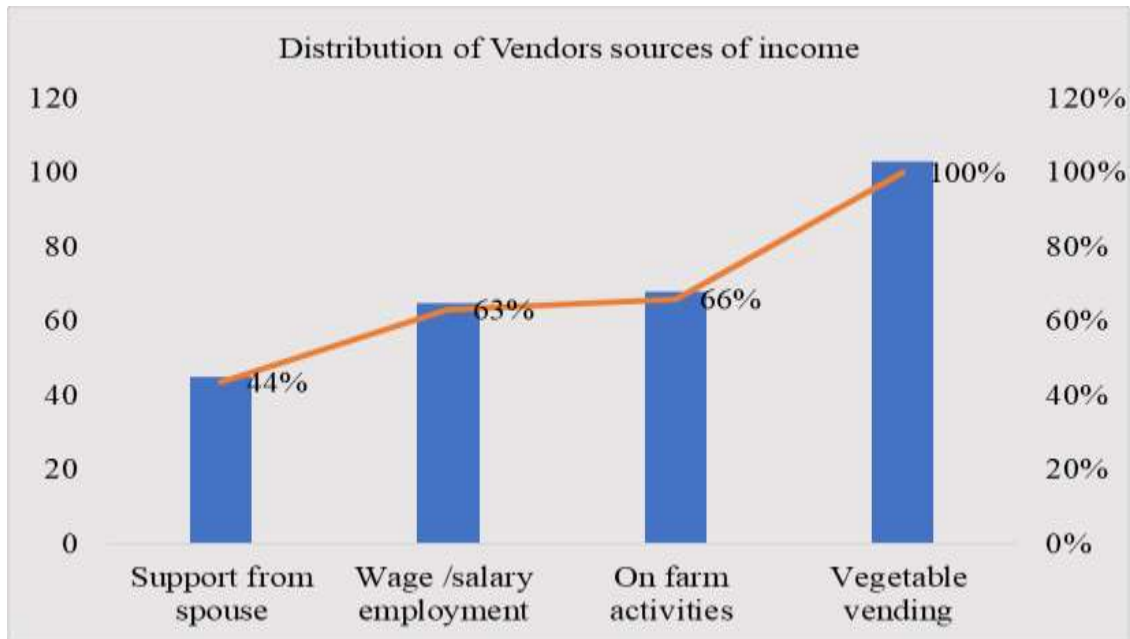


Figure 4. 1: Source of income for vegetable vendors households

Source: survey data 2020

In table 4.3, the study showed that 46 % of the vegetable vendors had a daily average income of KES. 300.00, 32 % of them earned an average of KES. 400.00, 12% earned an average of KES. 700.00 and 10% earned over KES. 701.00. The majority of the vegetable vendors earned slightly higher incomes per month than those that were earned as minimal monthly wage by the domestic workers in Kenya of KES. 7000. Although, the smallholder market promised better income options for vegetable vendors trading in Ahero, Kochogo and Ayweyo markets, Nyando Sub County. The informal sector was the work place where the majority of the unemployed population drew their livelihoods’ and the social economic activities reflected the economic theory of profit making as an incentive for the engagement by the households’ (Semazz, 2020). Key informant “As vendors, our businesses are not registered, lack of license, as branded us as illegal

businesses as much as the council collects taxes from us. We are grown ups looking for food and income, we earn our daily wages by vending vegetables. The vendors in the informal economy and the government need to strike a balance for mutual benefits. We need each other to support the family and contribute to the local economy”..

Table 4. 2: Average daily income for vegetable vendors

Average Daily Income	Frequency	Percentage
300	47	46%
400	33	32%
700	13	12%
Above 700	10	10%

Source: *Survey data 2020*

During the KII, the key informant said that:

“Vendor’s incomes varied with seasons, when the supply is low then vegetable vendors were disadvantaged because their daily purchases and incomes reduced. In dry season the minimum daily incomes were as high KES. 400 while in rainy season it was as low as KES. 200. (vegetable vendors in the Key informant, Ahero Market)

In the dry season vendors with less money bought less goods or had to diversify their business for a while. In the wet season there was a glut in the market, both the vendor and the consumer enjoyed the low prices” (Key informant – male, Kochogo market).

These assertions demonstrated that incomes varied based on seasons and investment levels. The households’ incomes fluctuated irrespective of whether there was inflation or not. In the formal employment, food availability is mostly affected by inflation, although in drought seasons consumptions may be reduced.

4.4.2 Vegetable vendors' daily expenditure at household level

Vendors expenditure was an important indicator on households' incomes contributions. Data obtained on how much the vendors spent daily on their households' basic needs was gathered and summarized in table 4.4 below. According to results 30.5% of the vendors spent more between KES 100-150 on basic needs, this was followed by the majority 40.4% who spent between KES 151-200, 11.7% the vendors spent between KES. 50-99 and a minority of 9.7% of these households spent more than KES 200 daily. These results showed that majority of the vegetable vendors' household were living within the poverty line, the households had a daily expenditure of at least KES 150.

Table 4.3: Distribution of vendors expenses at household Level n=61

Average Daily Expenditure (KES)	Frequency	Percentage
100-150	17	30.5%
151-200	25	40.4%
50-99	7	11.7%
Above 200	6	9.7
Below 50	7	7.7%

Source: *Survey data 2020*

To ascertain the contribution of vegetable vendors in meeting household expenses the study compared the average before and after entry into the smallholder informal markets. The results demonstrated that there was an increase in income from the vegetable vendors' households. Before, vending the majority of the households earned KES 150 and below. The income was generated from the farms and off-farm activities. After the vegetable vendors started operating the micro-enterprises in the smallholder informal markets, their daily average income increased to KES. 300 and above. This finding

concurrent with FAO (2015) which showed that although the benefits from the informal market is huge, and creates employment for most rural households it is always overlooked by the government. The daily economic activities engages the rural labour with continual meagre income that supports the rural households food needs as compared to income from family labour that is seasonal. Therefore, the income contributions made to the rural vegetable vendors households was positive as illustrated in table 4.5 below

Table 4.4: Average daily income before and after entry into the smallholder informal markets

Average daily income before	Frequency	Percentage
100	31	51%
150	22	36%
200	8	13%
Above 300	0	0%
Average daily income after	Frequency	Percentage
300	28	46%
400	20	32%
700	7	12%
Above 700	6	10%

Source: *Survey data 2020*

These results implied that the vegetable vendors who operated their businesses in the smallholder informal markets obtained higher incomes than when they did not engage in those markets, there was positive contribution to the households' incomes.

Key Informant from Ahero smallholder informal market, *“revealed that vegetable vendors' incomes earned from those markets, was basically for buying food for their families. He also said they saved money with the merry-go-round money for future emergencies”*.

4.5 Smallholder Informal Market on Food Availability of Vegetable Vendors Households

The second objective of this study sought information on what were the contributions of small-scale informal markets on food availability of vegetable vendors' households in

Ahero and Wawidhi wards of Nyando Sub County, Kisumu County, Kenya. The key indicators for these objective were household adequacy of food, variety and dietary diversity of food consumed, coping strategies among vegetable vendors and the number of meals taken by vegetable vendors households on daily basis.

4.5.1 Adequacy of Food in Vegetable Vendors Households

This study measured food adequacy in the vegetable vendors' households, this included the average availability of food across the 12 months. Results showed that the majority of the respondents, n=45, had adequate food between the months of August to December and the percentages ranged from 67 – 86 percent,. This study agreed with the findings from Gebru (2019), who observed that vegetable businesses resulted not only in higher food availability among households but they experienced low access in terms of food variety and diet diversity. The findings contradicted with Wegerif (2020) who noted that vendors were unable to secure adequate food for their households during the COVID-19 pandemic period due to lack of social safety nets that should have cushioned them against their shocks. This implied that vendors were unable to provide food for their household. Food adequacy varied by months having a higher food adequacy level in from the months of August to December. Respondents, n=43, showed that food shortage access prevalence reported that 71.3 percent of households in Kisumu County did not have access to adequate food. Further results demonstrated that household food supply for the vegetable vendors transacting in the Ahero, Kochogo and Ayweyo markets was low between the months of January to May. Food adequacy between April and May was generally very low only between 34-38% of the respondents from the households of the vegetable vendors adequate food supply as illustrated in figure 4.3.

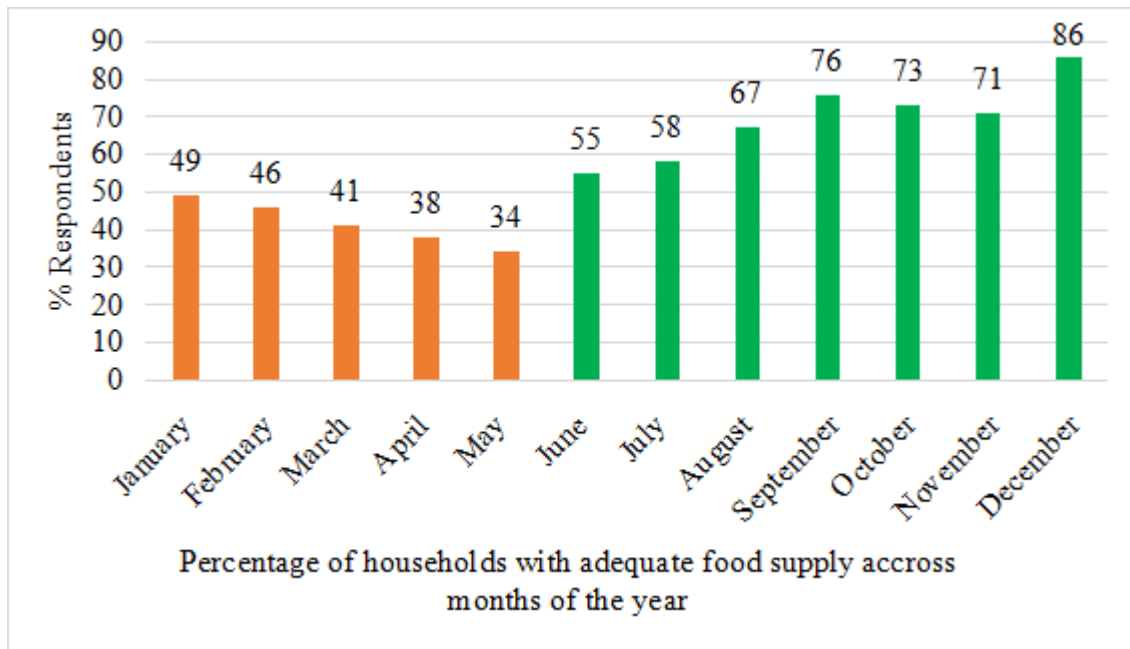


Figure 4.2: Distribution of household monthly food adequacy

Source: *Survey data 2020*

The vendors' enterprises anchored on seasonality was a result of rain-fed agriculture that controls food and nutrition availability in Kenya. This is in agreement with the how much the vendors earn at different seasons and their contributions to their livelihoods. Therefore, seasonality is an important factor in agricultural production, vegetable vending and household nutrition. This unique linkage may be a pathway for further research study in the linking of the association that emanates from food crop, dietary diversity and policy reviews.

4.5.2 Household Food Consumption Variety and Dietary Diversity

Household consumption of variety of food and being able to consume a balanced diet was key in food availability at household level. Vegetable vendors were asked to rate their agreement of food consumption at household level. A five-point Likert scale was used to

measure vendors' agreement on aspects of food consumption and dietary diversity as shown in table 4.6 below.

Table 4.5: Vegetable Vendors response on food consumption and dietary

Food consumption and dietary	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
Income from the vegetable business enables me to provide my household with food rich in carbohydrates	3 (5%)	5(9%)	5(9%)	18(29%)	30(49%)	4.1
Income from the vegetable business enables me to provide my household with food rich in proteins	5(8%)	7(10%)	15(26%)	13(22%)	20(34%)	3.7
Income from the vegetable business enables me to provide my household with green vegetables	2(3%)	2(4%)	4(7%)	20(32%)	33(54%)	4.3
Income from the vegetable business enables me to provide my household with fruits	6(10%)	8(15%)	28(46%)	12(19%)	7(11%)	3.1
I provide my children the food they request	6(10%)	2(4%)	8(13%)	15(25%)	24(39%)	3.7
My food purchasing power increased since a started the vegetable vending business	4(7%)	3(6%)	7(11%)	21(35%)	26(42%)	4.0
I am able to provide my household at least three meals daily	2(3%)	4(7%)	4(8%)	23(37%)	28(46%)	4.2

Source: *Survey data 2020*

Analysis in table 4.6 above demonstrated a high mean of between 4.3-3.7 on agreement of provision on the households with a variety of dietary and preference of food at household level. The mean score for being able to provide household with food rich in carbohydrate and green vegetable was high 4.1 followed by being able to provide household at least three meals per day was scored at 4.2.

The mean for vendors' provision of food rich in proteins and being able to provide children with their food preference was 3.7. Implying that vegetable vendors were able to meet household food dietary and food preference needed thus increasing food availability. There was an agreement that purchasing power for vegetable vendors for household food needs had increased since their engagement in vegetable farming. Vendor score for provision of fruits daily was neutral at 3.1 implying that not many of the vendors were able to provide fruits to their households on a daily basis. According to World Health Organization standard (2014), the minimal acceptable food quantity and quality was not attained since they did not have access to sufficient, safe and nutritious food to meet the dietary needs, since most of the households were low on access and consumption of fruits. This information was triangulated by information by the Key Informant who said,

“Vegetable vendors were able to feed their children well because through their businesses they had more access to food. During bulk purchase of vegetable for business they bought more for their families and also to some extent bought a few fruits and other food stuffs that were cheap and available in their season in the morning.” (KI. Ayweyo market).

It was clear from this interview that the vegetable vendors were had food readily available to meet their food preference needs of their households through the proceeds their businesses. They used profit from the business to purchase other food stuff or take the remaining vegetables to their households. The findings were in concurrence with IFAD (2016) policy report that revealed that although often overlooked by policy makers, street vendors were key players in the food agenda. They provide accessible and affordable food, sometimes on loan and in small quantities. Ahmed et al. (2015) also

noted that selling street food within slums also generated incomes for women; as an additional benefit, they worked as food vendors in their own neighbourhood while looking after their children and unlike their counterparts in the central business district, vendors in informal settlements did not need to rent space or pay for transport, and were less likely to be harassed by local government officials.

4.5.3 Dietary composition

The study results showed vendors daily uptake of the different dietary an indicator of the daily dietary composition. The data obtained from the study was summarized and presented in table 4.7 below.

Table 4.6: Distribution of vegetable vendors daily dietary composition

Dietary Consumed	Ahero n=61	Percentage
Animal Proteins	38	63.9%
Crop Proteins	48	78.6%
Carbohydrates (starch)	49	80.3%
Vitamins Fruits	26	42.6%
Vitamins Vegetables	37	60.6%

Source: *Survey data 2020*

4.5.4 Distribution of vegetable vendors daily dietary composition

The table 4.7 above, showed results on vegetable vendors households daily dietary composition for the following food items; carbohydrates dominated the daily diet uptake in the vendors' households was 80.3 percent, vitamin's vegetable was also high among

households as indicated by 60.6 percent. Crop protein uptake among the vegetable vendors' households' was 78.6 percent. Vitamin uptake from fruits was low as 42.6 percent. The vegetable vendors agreed that their household took fruits daily but the uptake was very low, only 28 percent of vendors consumed fruits in the homes. These results showed that vegetable vendors' household had access to a variety of food however fruit and crop protein consumption was low in some areas. The finding concedes with that of (Mwangi et al. 2012) who observed that street vendors in Nairobi County had access to a variety of food but lacked adequate education on how to combine the foods to achieve a balanced diet. Dhandevi (2015) observed that despite vitamins and fruits being important on household health, there was limited nutritional education intervention programs among households. Findings from this study establish that households have access to a variety of food but there was low uptake of vitamins fruits which could comprise food availability in households of the households.

Food and nutrition availability depend on market supply largely and accessed by incomes which was unique to every household. Most of the vegetable vendors are prone to income shocks that arise due to inevitable circumstances. The economic barriers were a deterrent to the consumption of healthy foods among those households whose incomes were within the poverty line limits. The results from the study indicated that those households preferred to buy foods rich in carbohydrates which was linked to low income earners. The households of vegetable vendors' social characteristics inequalities are directly linked to their inability to provide their households with a balanced

4.5.5 Food Availability Coping Strategies

The households mostly accessed credits from Merry-go-round (83%), those households also purchased items in bulk at discounted costs (71%). The other option included reduced portion of food (24%). Reduced number of meals (22%) and sales of livestock was as a last resort (15%) as indicated in figure 4.4. Studies by FAO, FAD, UNICEF, WEP, and WHO, (2022), concurred with the stated coping strategies, however, they listed others that include, borrowing money to buy food, obtaining food on credit, and opting for more domestic work on casual basis.

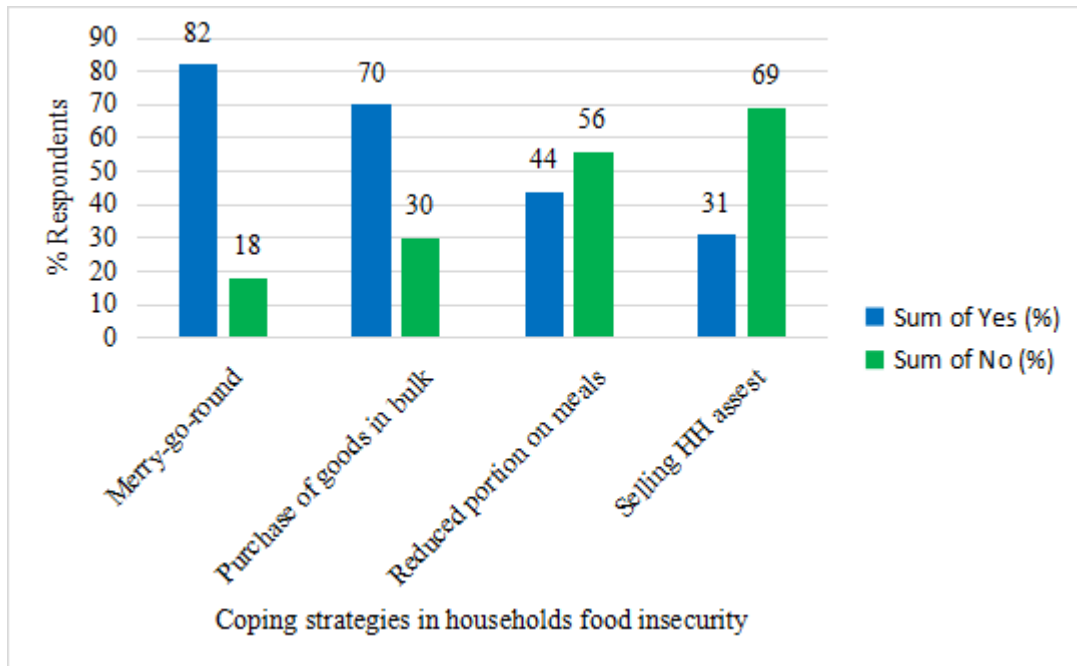


Figure 4.3: Coping strategies

Source: Survey data 2020

The vegetable vendors at some period suffered from seasonality that was manifested in households experiencing low food availability and nutrition. That was further aggravated by disproportionate female gender, 95%, and low literacy levels 63%, and 71% of single

never married /single married participated in the smallholder informal markets and were unable to mitigate economic shocks. Studies by FAO, FAD, UNICEF, WEP, and WHO, (2022) revealed that rural households with these social economic characteristics had no access to households' productive assets that would enable them to make decision on recovery. The policy reviewers on the streamlining of the informal markets would consider social safety net arrangements to support the already vulnerable households. Studies on aspects of appropriate government intervention to improve the smallholder informal markets registration of businesses and provision of financial access to improve the income levels that contribute to the improvement of livelihoods. households receive for better social economic

4.6 Informal Markets Vegetable vendors and well-being of households

The third objective sought to understand the role of smallholder informal markets on the well-being of vegetable vendors' households. Well-being was measured in terms of household satisfaction with life, employment creation, and benefits of incomes that were generated from the smallholder informal markets by the vegetable vending households in making lives better.

4.6.1 Vendors Rating of Satisfaction with life

Information of the vegetable vendors' satisfaction with life was gathered using a five-point scale rating where 1= Not Happy, 2= Somehow Happy, 3=Moderately Happy 4=Happy 5=Very Happy. The 61 respondents were asked to rate their satisfaction with life aspects that contributed to well-being. The summary of the results is as shown in table 4.8. The rating of satisfaction described the state of happiness by individual street vegetable vendors' perception of life situation concerning the following factors; (i)

income earned from vegetable vending mean of 3.1, above average, (ii) current lifestyle 3.6, good. (iii) care for visitors, 3.3 above average (iv) children comfortable with their lifestyle 3.3, above average (v) Access to healthy foods 3.8, very good (vi) access to clean water and better sanitation 2.1, below average and (vii) satisfaction with health status 3.6 good. The model was borrowed from the Confirmatory Factor Analysis to generate the 7 domain of family satisfactory indicators and was scored in terms of happiness. The index of family satisfactory indicators was subjected to the 1-5 Likert scale response format which had several indicators. The index of the family satisfactory was in terms of happiness was 3.3 which showed an overall moderate happiness for the vegetable vendors who transacted their businesses in the smallholder informal markets. The other causes that could reduce happiness were challenges of development that contribute to the breakdown of family institutions such as divorce, separations, early teenage pregnancies and social economic pressures to improve households living standards.

Table 4. 7: Vendors Satisfaction with well-being

Aspects of life	1	2	3	4	5	Mean	Satisfaction Happiness
The vegetable business income	7	12	18	14	10	3.1	Moderate
Current households' lifestyle	5	7	10	25	14	3.6	Happy
care of visitors in case they visitors	6	8	20	15	12	3.3	Moderate
The life my children are living	7	8	8	23	15	3.3	Moderate
I am satisfied that I can take care of my extended family members	20	13	10	8	10	2.6	Somehow
Accessibility to healthy food	4	5	14	31	8	3.8	Happy
Accessibility to clean water and sanitation services at residence	23	20	8	5	4	2.1	Not Happy
Satisfied with my health generally	3	5	11	35	7	3.6	Happy

Source: *Survey data 2020*

Analysis from table 4.8 showed an overall moderate satisfaction with well-being indicators among vegetable vendors and their households. Majority agreed that they had access to healthy food, satisfied with the income generated from the business and their ability to take care of their immediate family needs in terms of the life they currently live. In addition, the result showed somehow satisfaction among vendors on accessibility to water and sanitation services at the places of their residence, and ability to take care of their extended relatives.

4.6.2 Creation of Job Opportunities

Employment is also an indicator of the household's well-being. In assessing the contribution of smallholder informal markets on job creation, the study interviewed street vegetable vendors from Ahero, Kochogo and Ayweyo markets. The summary of the data is as presented in figure 4.5.

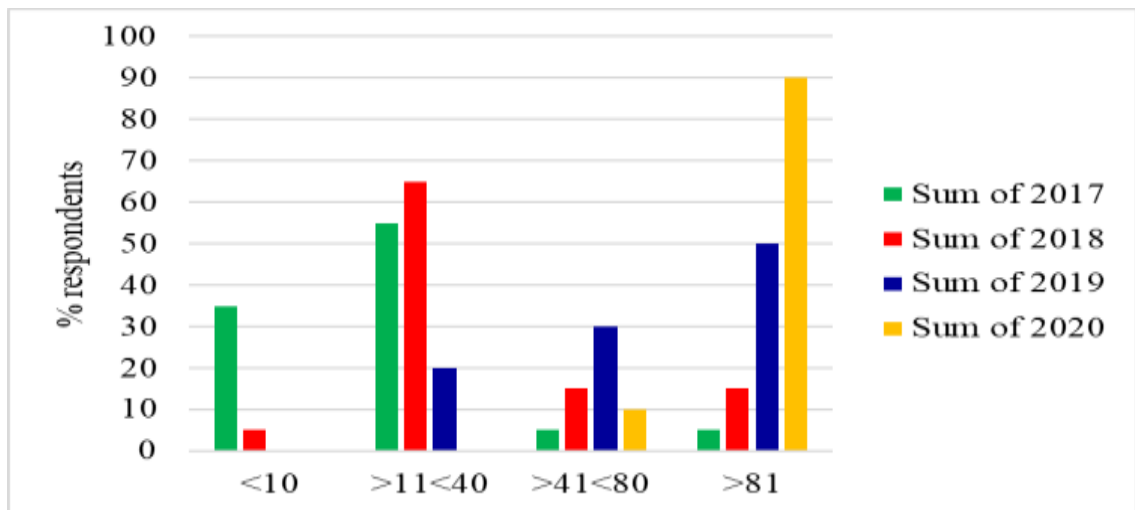


Figure 4.4: New entrants to the informal markets

Source: *Survey data 2020*

The results demonstrated that in 2017, an average of 40 people joined the smallholder informal markets as vegetable vendors. In 2018 and in 2019 /2020, over 80 people joined the smallholder markets as vegetable vendors, which was an indicator that the smallholder informal markets offer the rural households with employment opportunities. Interview discussion further revealed that vegetable vendors had set other businesses such as food kiosks retail shops, middle men function, transport system, water vending and tailoring to support their vegetable vending business. Using the confirmatory Factor Analysis on a Likert scale of 1-5, Results on vegetable vendors' perception on the

contribution to employment by smallholder informal markets were as indicated in table 4.9 below. The transport system and food kiosks had a mean of between 3.6-4.2, indicate that these markets positively contribute to creation of jobs. The retail shops, middlemen function and water vending had a mean ranging from 3.0 - 3.5, these markets also fairly create the opportunity for their establishment. Tailor shop is market niche created by establishment of social belongings such as women group or self-help groups. Overall, 5 out of 6 business opportunities that were created by the social networks had a mean range of 3.1-4.2 which indicated a moderate to high perception on the smallholder markets contribution on employment.

Table 4.8 Vegetable vendor's perception on smallholder informal markets contribution to employment of rural households

Economic activities	Strongly disagree	Disagree	Fairly Agree	Agree	Highly Agree	Mean
Food Kiosks	2	8	11	30	10	3.6
Retail shops	1	2	29	15	4	3.1
Middle men	2	8	30	15	6	3.2
Transportation	1	2	3	35	20	4.2
Water vending	5	5	25	20	5	3.2
Tailor shops	5	10	38	6	2	2.8

Source: Survey data

The rural population migrated its labour to the smallholder informal markets for employment and this is tandem with world statistics where more than half of the world employment is in the informal sector. The well-known economic activities within the

informal sector such as electronics, hair salon, motor vehicle repair have already created employment opportunities. But the part time economic shift from the agriculture sector into the smallholder informal markets of Ahero, Kochogo and Ayweyo are also seen to provide employment opportunities to vulnerable members of the households. The vegetable vending enterprise is a new venture of low investment that has enabled rural households to start vegetable vending in the smallholder informal markets and have provided opportunities for the vulnerable households' members, especially the women to survive by escaping from poverty and hunger. The self-employed rural households plight in the informal markets can be addressed through the review of trade policy which would likely contribute to improving the living standard of those households. De Soto (1989). argued that existing perception and attitudes among policy makers in the field of informal economy was a deterrent for the actors and a barrier to their economic growth and improvement of their households livelihoods as their businesses were termed illegal. The writer was convinced that over 60% of all households income were generated from the informal sector.

4.6.3 Benefits Accrued from Smallholder Informal Markets

Improvement of well-being was also assessed by the benefits accrued by smallholder vegetable vendors in informal market as showed in figure 4.6.

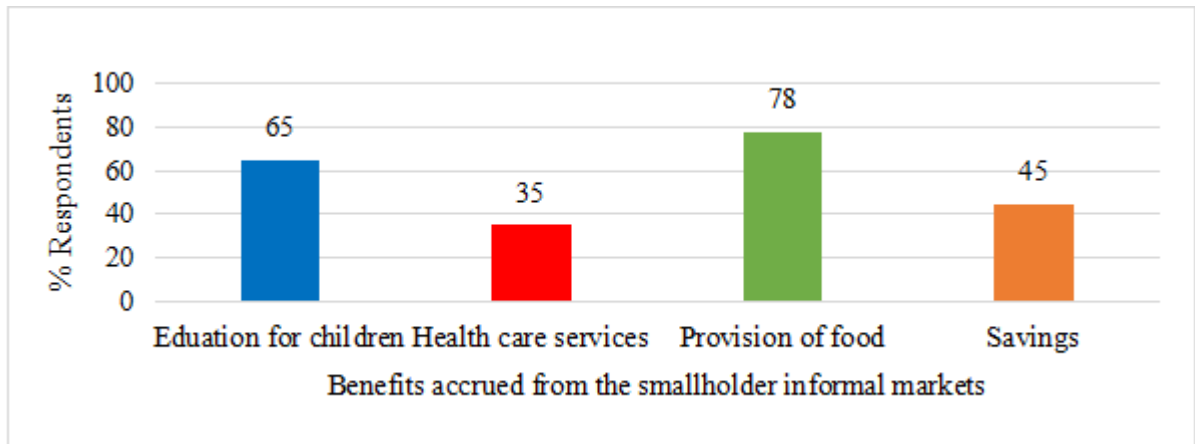


Figure 4.5: Benefits and contribution levels in rural households

Source: *Survey data 2020*

The contribution of benefits for rural vegetable vendors’ households were as follows; 78 percent provision of food for their households. The high percentage described the level of food contribution by the smallholder informal market and indicated that those markets positively improved food availability in vegetable vendors’ households. The score of 65% on education for their children showed positive progress towards reduction on household illiteracy. A more informed society is able to access information, negotiate on prices and access credit to expand business. The informal markets had a long term of transforming the peoples’ mindset to larger business opportunities by future provision of skilled labour. The 45 percent of the vegetable vendors benefited by saving part of their income, an avenue to build capital and assets for expanding the businesses in the future. It is important to know that vendors also have the desire to grow their businesses and or move to higher levels of transacting businesses, creating employment and contributing to the country’s GDP. All citizens need quality products and services both in the private and in the public sector. while 35% benefited them by providing health care access for the

household through NHIF. The assessment indicated that 65 percent of the vegetable vendors showed that smallholder informal markets benefit supported in child education and for household food. Hence, these results implied that vegetable vending in informal markets had a positive contribution on vegetable vendors well-being.

4.6.4 Social Networks Map

The vegetable vendors mapped their social networks through a focus group discussion. The results are diagrammatically illustrated in figure 4.7. Below, the vegetable vendors mapped all their social – economic network along the vegetable value chain in the markets where the study was carried out. Without which the businesses would not have survived. The social network comprised of middlemen, vendors, transporters, suppliers, government trade authorities, family members and customers. The researcher enquired the significance of the of social networks. All they players contributed to the growth of the business. The middlemen provided credit as well as connected the vendors with the vegetable suppliers for business continuity as they earned commission for the transaction. The vendors were the entrepreneurs who risked their capital by investing in the enterprise with the hope of earning profit. The transporters ensured that the goods were delivered on time while they benefited from earning transportation costs. The customers benefited from accessing fresh affordable vegetable at a convenient location while the vendor earned the profit from the sale. The proceeds from the informal market interactions created employment opportunities for all the actors and its transformation would be a milestone in achieving the sustainable development goals for the nation (FKE AND ILO,2021).

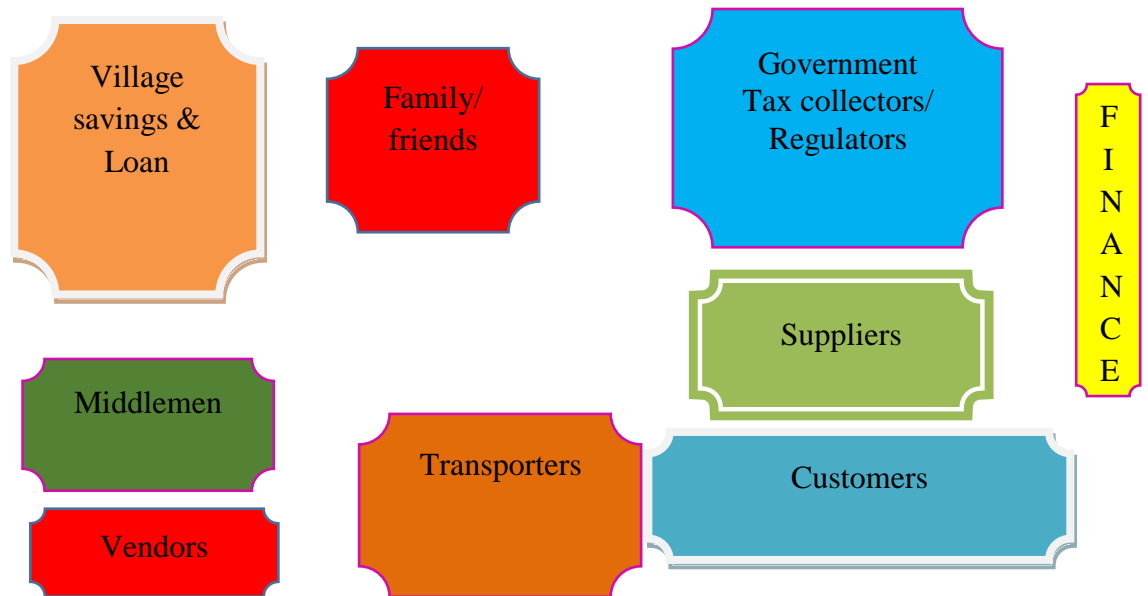


Figure 2.6: mapped social networks

Source: Survey data 2020

4.6.5 Rating the importance of social networks

Table 4.10 showed how the vegetable vendors in the smallholder informal markets rated the importance of their social networks. The vegetable vendors preferred the village savings and loans as the most important social network. Business required capital for initiations and growth, the customer provided the demand for the product which informed the supplier on the quantities that were required. The social network contribute to economic resilience and it is an important for all people as they associate with each other (Sinha, 2023).

Table 4. 9: Respondents priority rating of importance of social networks

Social economic networks	Rating the importance of main social economic networks							Total	
	1: Middlemen	2: customer	3: Transport	4: Supplier	5: Village saving & loan	6: Credit facility	7: Cess collector		
Site/score	1	0	13	12	11	15	5	5	61
Total		0	13	12	11	15	5	5	61
Position		7	2	4	3	1	5	5	

Source: survey data, 2020

4.6.6 Benefits from Social Networks

Qualitative results from Key informant interview alluded that vegetable vendors’ success was embedded on social networks that enabled them to connect to; acquisition of information, financial discipline, and improved decision-making capability and discipline to save.

“Social networks facilitated the vegetable vending business growth and helped the vending households to mitigate their income shocks. Through those networks they were able to make daily savings as from KES. 50 and also borrowed money to grow their business” (KI, Ayweyo markets)

The findings showed that connection with social network was a major contributor to the well-being of vegetable vendors businesses and their households. Studies by Irwan (2022), indicated that the establishment of the social networks provided economic resilience and a major contributor to economic growth for any country whose employment policy promotes a lean formal employment.

4.7 The Contribution of smallholder informal markets on vulnerability of vegetable vendors Households

Lastly the study sought to assess the factors within the smallholder informal market of vegetable vendors that contributed to their vulnerability of vegetable vendors' households. Data analyzed on vulnerability in regards to access to Economic such as issues of credit, lack of saving, loss of goods and shortage of goods supplied. improved relationships, and access to health services is presented below figure 4.9. The vulnerability theory is non discriminative, it states every one facing a threat or calamity becomes vulnerable and needs support to mitigate their circumstance. The vegetable vendors too were faced with several challenges as discussed below.

4.7.1 Access to Credit

The results on access to credit were presented in figure 4.8 below, which indicated that 83% of the vegetable vendors were unable to access credit facilities while 17% accessed credit. The researcher observed that the challenge of low access to credit among the vegetable vendors who participated in the smallholder informal markets contributed to poor work environment as businesses expanded faster without infrastructural development. The Key informant interviewed “*revealed that vendors accessed financial credit from self-help groups, mobile banking and village social networks, this sources showed that vendors sources of capital were limiting in case one needed to expand their business*” and this concurs with studies that were carried out by Machio (2020). The qualitative data also sought information on how vendors mitigated their financial

vulnerability. Strategies such as daily saving of KES. 50-100, table banking, and mobile banking increased the credit amount.

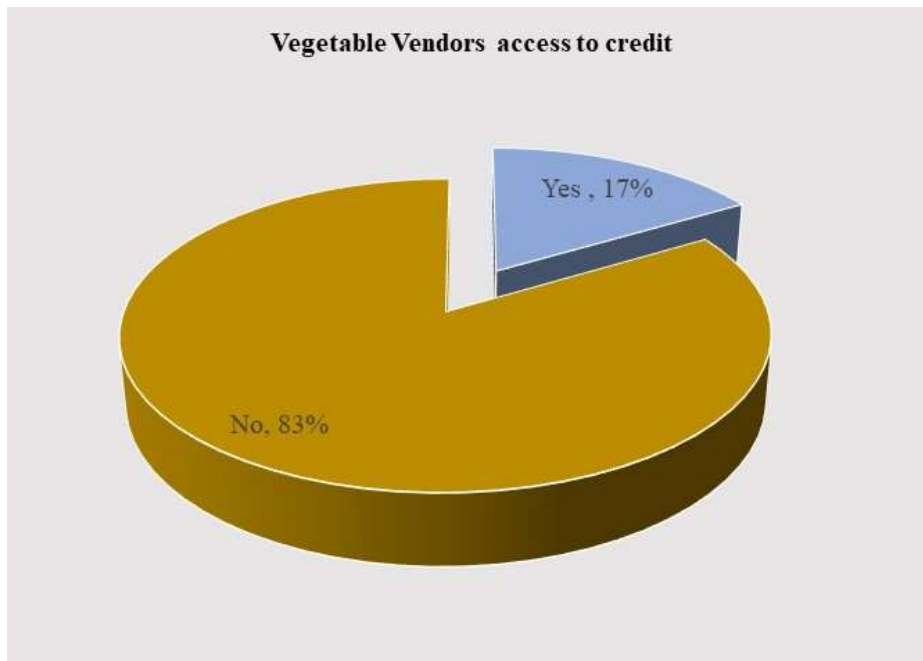


Figure 4.7 Access to credit facility

Source: survey data, 2020

4.7.2 Business Risk and Vulnerability

Figure 4.9, indicated that, 51% of the respondents' delivery of goods was not good, 45% showed that the delivery of goods was not guaranteed and only 4% agreed that delivery of produce was good. The fresh vegetables were highly perishable, and good packaging was important just as delivery timing. Market studies have reported severally, that the roads from the farms were basically made from murrum or earth roads. In the rainy season, these roads became muddy and were full of potholes, the roughness of the road slowed the transportation as well as hiked the transportation costs. Therefore, the reliable mode of transportation remained the use of motorbikes which contributed to delayed

delivery of goods and compromised on vegetable quality, price and demand. The destroyed goods were disposed anyhow and that contributed to the environmental pollution which reduced incomes and contributed to poor health and financial stress among the impoverished rural households' livelihoods.

Studies by Ismail and Mahydeen (2015), indicated that a good road network would facilitate transportation of goods for trade and would reduce travel time, preserve quality and produce price. This reduces loses on food quality and quantity and incomes and ultimately could contribute to improved business outcome and household livelihood.

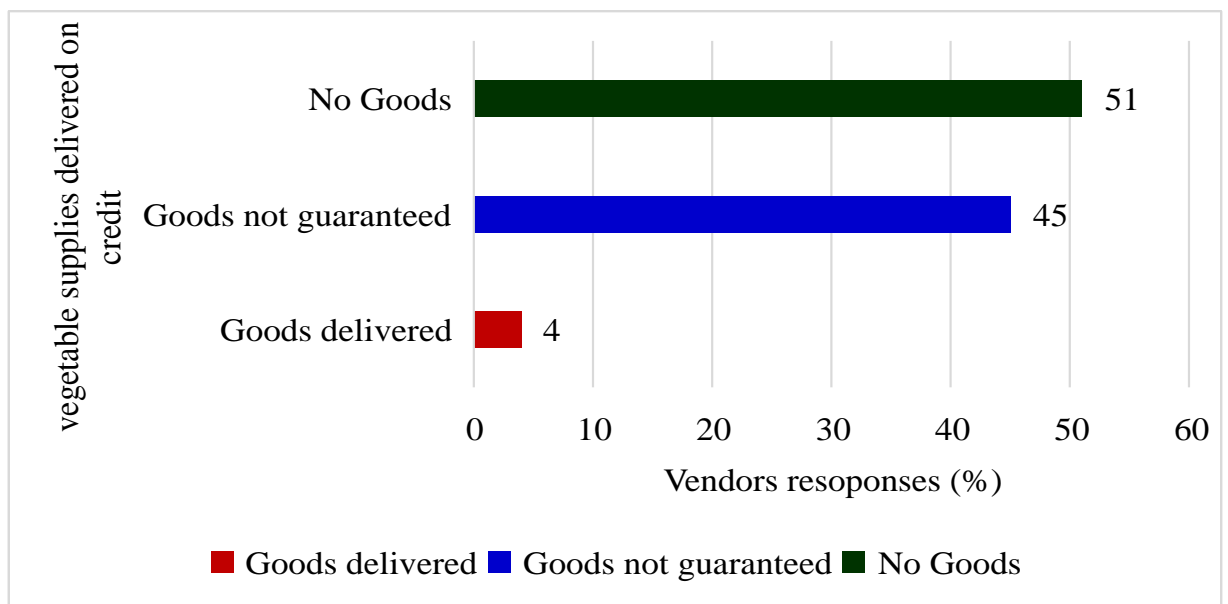


Figure 4.8: Supply of goods

Source: survey data, 2020

4.7.3 Conflicts of governance

Awareness of Instruments of Dialogue

The research finding in figure 4.10 below, showed that 65 percent of the vegetable vendors did not know about business registration, all respondents had no knowledge

about local council organizing meetings that would bring the parties together to a common platform to discuss matters affecting work environment. Additionally, all vendors did not know about the existence of any vendors' association, and 66% did not know of any form of grievance handling facility.



Figure 4.9: Vendors awareness of trade instruments

Source: survey data, 2020

The result indicated that the vegetable vendors were part of the rural households who started their business in search for income to support their households who did not have adequate food supply. They started the micro-enterprises without much inquiry on how to conduct business in smallholder informal markets away from farm business. Studies carried out by Al-Jundi et al., (2022), showed that the vending activities by the vendors in the smallholder informal markets were more or less guided by traditional laws while the small-scale business enterprises were governed by government laws, the rural households somehow engaged in the smallholder informal markets as though they were working on their individual farms, governed by traditional laws.

4.7.4 Legal Operations Risk Vulnerability to Vegetable Vendors Business

In figure 4.11 below, showed that vegetable vendors from the smallholder informal markets responses were as follows; 90 and 89 percent perceived the local sub-county official's role as that of exercising excess powers that culminates into harassments of the already vulnerable vendors. 80 and 76 percent perceived the role of local county police officers' as that of creating fear in order to obtain bribes, and 44 and 40 percent indicated that the local police officers executed eviction order. Other risks observed by Spadi (2022), showed that open stalls, fires and spread of respiratory diseases like Covid-19. The factors are caused by congestion and inadequate hygiene facilities at work place and indeed affects the vegetable vendors' health and well-being,

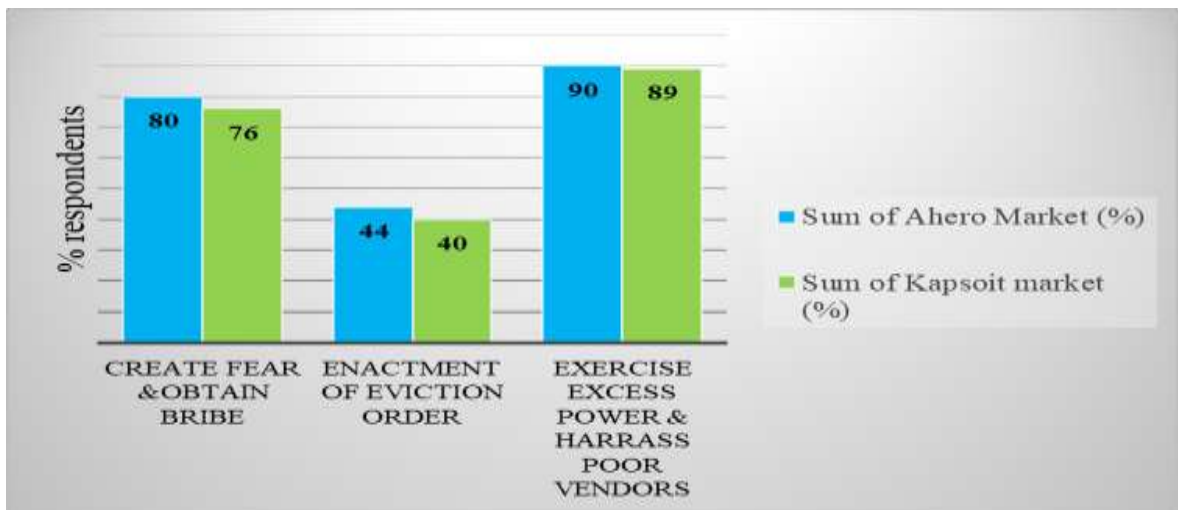


Figure 4.10: illegal businesses exposed to risks

Source: survey data, 2020

The Key informant from Kochogo market explained that smallholder informal markets and the rural households participating in the area associated with illegal businesses which operated in encroached public land. The vegetable vendors had no rights to occupy

pavements, streets and roadside and the government has every right to order eviction and this is the background upon which harassment, merciless eviction where physical damage of temporary structures was witnessed, smashing of goods and looting of property happened in some cases. This animosity, by extension contributed to destruction of trust between vegetable vendors and service providers and eventually culminated to both physical and emotional stress, let alone loss of business, income and livelihood. The vulnerability theory argues that, it is important to observe people's rights of association without comprising the need to be protected from any imagined danger. Yet, should contribute to policy maker's decisions on how to streamline the sector as an economic studies by Chandra and Jain (2015), on property rights of the vendors indicated that public spaces belong to government and they in turn should prioritize employment opportunity issues and streamline vending spaces for economic development.

4.7.5 Workplace Risks and Household Vulnerability

The work place vulnerability was associated with exposure to physical risks as indicated in figure 4.12. The factors that contributed to risks in the smallholder informal markets work place were as showed; 63% of the vendors indicated that congestion was high risk to human health, 80% that poor governance contributed to poor work relationships, 95% indicated poor access to clean safe water is a problem and 98% said that poor sanitation was of high risk.

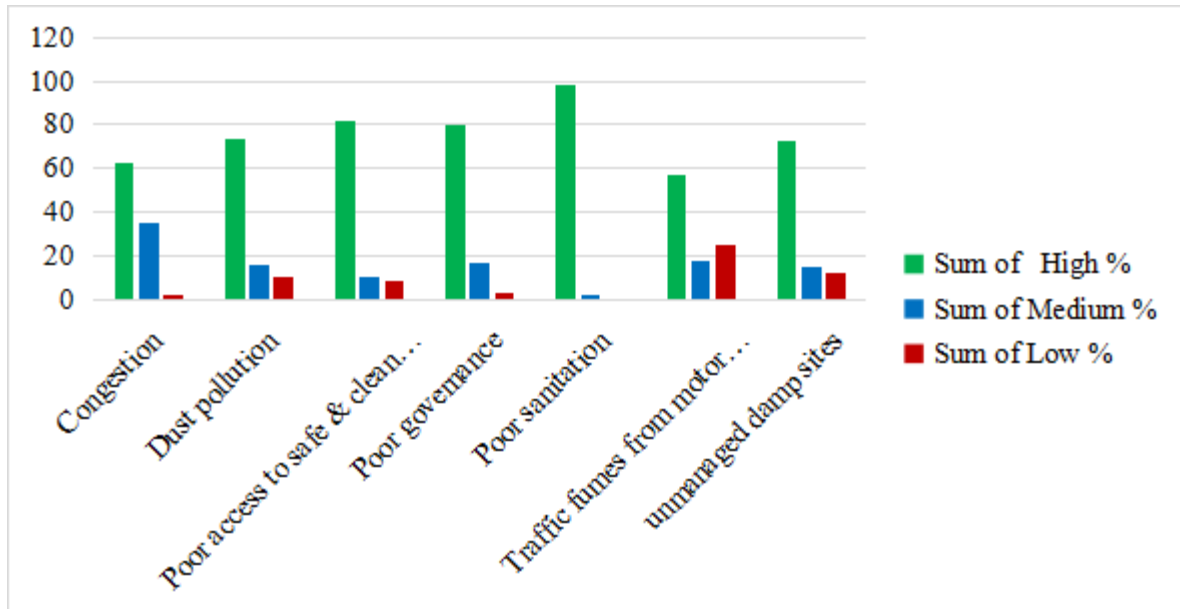


Figure 4.11: Physical hazards at informal markets

Source: survey, 2020

Key informant in Ahero market, explained the legal operations risk vulnerability to vegetable Vendors business

“The market places by virtue of being located along the streets became automatic unsafe places for human beings in terms of air pollution caused by high traffic, unmanaged damp sites dust in the dry season perceived to contribute to respiratory diseases; the government has a responsibility to support local initiative by streamlining the business registration process, provide clean water and create adequate rest rooms to reduce stress challenges associated with emotions, mental and physical” and this agrees with the studies conducted by IFRC and RCS, (2016).

4.7.6 Health Risks and Vulnerability

Figure 4.13, showed that 92 % of vegetable vendors interviewed in Ahero, Kochogo and Ayweyo smallholder informal market markets ranked unclean water as number source of health hazard; litter was ranked second at 81%; inadequate toilets was ranked third at 60%; blocked drainages was ranked fourth at 78% ranked blocked drainages while dust score 33%, the least problematic.

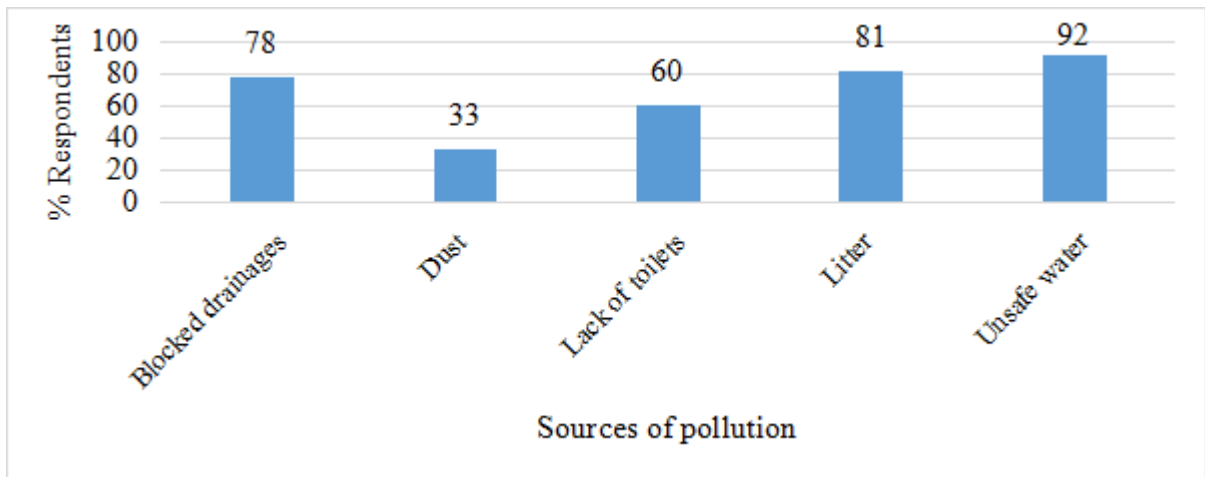


Figure 4.12: Sources of pollution

Source: survey, 2020

The lack of toilets facilities or their dilapidated state increased health challenges, especially with the increase of communicable diseases such as cholera. Those who own private restroom charge for a fee in order to provide for the services needed, very small vendors were willing to pay for the services. The Urban Review Report - Nakuru County(2018), showed that self help groups were given the license to operate public toilets as they charged a minima fee to provide services to the public.

Drinking water was provided for in containers by water vendors, drainages were filled with mud while dump pits are unmanaged. The vegetable vendors working in the

smallholder informal markets in Ahero, suffered a lot from the traffic fumes and from smelly from damp sites which affected their respiratory system. The waste discharged in river by households and factories made the water unsafe. Yet, the water vendors drew water from River Nyando for a lot of use in the market places including sprinkling water on the vegetables to look fresh and this is in agreement with FAO AND WHO (2021), that showed that flowing water had high turbidity and therefore, unsafe for human use and associated with water bone diseases.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter covers summary of the research findings, conclusions, and recommendations. Based on the study results, suggestions for further research were identified. The study found out the contributions that smallholder informal markets made on the vegetable vendors households in Ahero, Kochogo and Ayweyo markets, of Ahero, Wawidhi and Awasi Onjiko wards, Nyando Sub County, Kisumu County, Kenya. Descriptive survey research design, through the administration of questionnaires was used for collection of quantitative data. Key informant interviews was also conducted for in-depth data qualitative data.

5.2 Summary of the major findings

The study focused on the contribution of smallholder informal market on vegetable vendors' households' livelihood, in Nyando Sub County, Kisumu County, Kenya.

5.2.1 Social characteristics

The first objective described the social characteristics of the street vegetable vendors' households' who operated their businesses along the roadsides and streets of the smallholder markets in Nyando Sub County, Kisumu County. The results showed that 95% of the vegetable vendors were female and 5% were male. This implied that gender representation in those markets were disproportionate, in that it was female dominated. The age of vegetable vendors active in the smallholder informal markets was from the age of 32 years represented by 73%. That population of the street vegetable vendors were

basically women who streamed in the local markets from their homestead every afternoon to sell vegetables for alternative households' incomes'. Most of the vegetable vendors (63%) had primary education, low literacy, therefore, the smallholder informal markets were better placed in offering employment opportunities for those households'. The majority of the households' heads (46%) had an average of household size is 4 and 36% had more than 6 members, which was an indicator of high dependency, that often compromised the living standards of households'.

5.2.2 Sources of income for street vegetable vendors

The street vegetable vendors (100%) overwhelming indicated vegetable vending was their main source of income. Other sources were; on-farm activities (66%), wage / salary (63%) and spouse remittance/support (44%). This study established that vegetable vending was the most important contributor to household income. Studies by Kwame (2014), indicated that the suitability of informal sector for rural households depended on low investment, low education / skill level, easy entry, convenient locations, the availability of local goods and customers, and flexible work time. Findings from studies by Grant (2014), indicated that the informal markets for rural households was the main alternative source of income in the reduction of risks of inadequate food and income for the households well-being (Grant, 2014)

5.2.3 Smallholder Informal Markets Contribution of Income On Vegetable Vendors' Households

the study showed the average daily incomes obtained by street vegetable vendors who streamed into the local markets every afternoon and sold their vegetables in search for alternative households' incomes. Results showed that 46 % of the vegetable vendors

earned a daily average income of KES. 300.00, 32 % of them earned an average of KES. 400.00, 12% earned an average of KES. 700.00, while 10% earned over KES. 701.00. The incomes translated into average monthly earnings showed that majority of the vegetable vendors earned slightly higher incomes per month than those that were earned as minimal monthly wage by the domestic workers in Kenya of KES. 7000.

The monetary value of average daily expenditure on food by the vegetable vendors' household was on average Kenya shilling 300 and the daily savings were KES. 100. But the expenditures and savings increased when vegetable vendors realized higher profits. The 82% of the vegetable vendors showed that average daily profit of Kenya shilling, 350 obtained from the smallholder informal markets was higher than the gazetted minimum wage of Kenya shilling, 7000 per month for domestic workers in Kenya.

Before, vending the majority of the households earned KES 150 and below which was generated from the farms and off-farm activities. After vending, their daily average income increased to KES. 300 and above.

Despite, the seemingly positive income contribution received from the informal markets. Most of the households operated on the basis of hand to mouth mode as incomes was received and this was not unique to vendors' households. The KBS (2020) reported that 94% of Kenyans population are poor and households live on hand to mouth. This was because many the households did not have extra income beyond their survival budget which was hard earned from the informal sector. The sizable populations of the developed world like the developing world live on hand to mouth, in the united states, 40% of the population live on hand to mouth, consuming all their disposable incomes

(Michael Hotchkiss, 2014). The smallholder informal markets for street vegetable vendors provide convenient locations and flexible hours and contribute incomes to the households' incomes.

The evaluation of food availability on vegetable vendors' households through a set of criteria had the following results; 25% said they were worried of not having enough food to eat as well as having the fear of the food not being available, 42% did not eat the kinds of food they preferred to eat, 41 percent ate limited varieties of food, and 95% ate "three meals a day" – in essence only one meal was in sufficient quality and quantity.

The yearly staple food production and availability from the farming calendar indicated that sufficient households only lasted for three months after harvesting, the next three months the quantity eaten reduced and these households went back to food shortage cycle for another six months. The Malthusian theory of population that was based on relationship between population and food supply and that the balance for households' food was only attainable as long as the population was still nourished by the source of income and food. In the case where the population was beyond nourishment then there was need for control strategy to be incorporated. Thomas Malthus suggested that two methods were available and either could manage the process such as; birth control or disaster through diseases and war. Therefore, from the study the street vegetable vendors' strategy for population and food supply was achieved by their engagements into the smallholder informal markets for alternative household income.

5.2.4 Vegetable vendors well – being and social networks

The study found out that 80% of the vegetable vendors were self-employed, 85% had more than five years of experience and almost worked daily for long hours. In the course of their work, they were connected through several social economic networks that positively contributed to rural households 'business growth and income. The confirmatory factor analysis on a five point Likert scale, showed that the transportation systems and food kiosks had a mean of between 3.6 – 4.2 which was moderately high and the retail shops, middlemen and water vendors had a mean of between 3.0 to 3.5 which was moderate. The results indicated that the stakeholders' networks in the smallholder informal markets created employment opportunities for the adult members of households. Overall, 5 out of 6 business opportunities that were created by the social networks had a mean range of 3.1-4.2 which indicated a moderate to high perception on the smallholder markets contribution on employment.

The vegetable vendors' households also benefitted from food supply as 78 % attested that the incomes earned and their work in the informal markets exposed to access of a wide variety and adequate quantities of food was available for their households contributed to the households well-being. The score of 65% on education for their children showed positive progress towards reduction on household illiteracy. A more informed society would be able to access information, negotiate on prices and access credit to expand businesses. The 45 percent of the vegetable vendors benefitted by saving part of their income, an avenue to build capital and assets for expanding the businesses in the future. 35% benefitted from health care services through the National Hospital Insurance Fund. The results further indicated that 65 percent of the vegetable vendors benefitted by being

enabled to pay for their children's' education. Hence, Overallly those results implied that social interactions among the vegetable vendors in smallholder informal markets had a positive contribution on vegetable vendors well-being by creating opportunities for employment, food availability, improvement on access to education and health care facilities.

5.2.5 Assessment of Vegetable Vendors Household Vulnerability

The factors that contributed to households' vulnerability were low access to credit facility as 83% of the vegetable vendors indicated. The physical risks that affected the vendors were congestion along workstation (63%), conflict due to space (70%), which contributed emotional stress. The economic losses include; loss of business to calamities like COVID-19 (75%), shortage of supply due to seasonality (50%), loss of goods due to storage or confiscations (25%), lack of supply guaranteed (51%), which contributed to economic stress that threatened the street vendors' households to further vulnerability of possible loss of income. Lack of registration (100%) was the main source of conflict with the government and the vegetable vendors' households were faced with corruption practices by the government personnel such as bribery (80%), fear and harassments (90%), eviction (44%), any of those disruption made the households vulnerable, a threat to their income. Finally, environmental risks included: poor access to safe and clean water (95%), poor sanitation (98%), dust pollution (74%), unmanaged damp site (73%) and traffic fumes (57%) all those factors contributed to bad health slowed down businesses.

The listed factors contributed to corruption disguised with law enforcement on clearing public space for utility, but in essence they demanded for bribes and instigated physical and emotional harassment. The obscene work environment, affected the business performances, lowered the living standards of the vegetable vendors' livelihoods who kept struggling for survival. The threatened households took a reverse gear of increased lack of resources and poverty in severe cases. The findings agreed with the study that was conducted by Kempe (2014), which found out that in the smallholder informal markets, the rural households received benefits but also experienced drawbacks, yet for household survival, those households continued to participate in the markets.

5.3 Conclusions of the Study

The study outcome indicated that 95% of the respondents were female who engaged in vegetable vending. The indicated 71% of the respondents were 71% of the households were female headed. The result could be an indicator that vegetable vending was a preserve of women while decision making on access and control of productive assets was male predominant. The low education level significantly affected their access to credit, 83% of the vegetable vendors could not access credit facilities except money they had saved in the merry-go-rounds. Vegetable vending was an opportunity for many age groups in households as evidenced by the wide range from 32 years (73%). The average household size of 4 members increased the dependency level and negatively impacted on the households' quality of living standards.

The results showed that 100% of the vegetable vendors main source of income was from the smallholder informal markets of Nyando Sub County, Kisumu County, Kenya.

Vegetable vendors earned an average of daily income of between KES. 300-700. This contributed significantly to the household expenditure of between KES. 150-200 daily. The study thus established that vegetable vending was an important source of income for rural households and contributed to the improvement of households' livelihood.

The food and nutrition availability depend on market supply largely and households accessed the food through buying from their incomes. In case of shock due to some pandemic such as COVID-19, the study showed that 83% accessed credits from their Merry-go-rounds to manage revamp their businesses and some amount would be allocated for food. Vegetable vendors used other attempts to reduce shocks, 71% of them also purchased food items in bulk at discounted costs. 24% reduced portion of food, 22% reduced number of meals and 15 % sold livestock as a last resort.

Further study on households' uptake daily dietary composition showed that vendors rated daily uptake as follows; 80.3% of the vendors said that carbohydrates dominated the daily diet uptake, 78.6% rated crop protein as second most important food in the die, 60.6% rated vitamin vegetable as third most important food in their food diet and 42.6% rated vitamin uptake from fruits as generally low at 42.6 %. The low literacy of the vegetable vendors could have contributed to low consumption of vitamins, they probably had no access to nutritional education intervention programs except those received for children at the toddler stage from hospital clinics.

The study found out that informal markets of vegetable vendors positively contributed to food availability, consumption of a variety of food, and increased coping strategies for food insecurity in rural households. The study found that there was increased access to a

variety of food and the financial capability of vendors to purchase food for their households. However, vegetable vendors had low awareness of food health and safety measures.

Well-being of vegetable vendors' households: the satisfaction that vegetable vendors received from the smallholder informal markets was tested by use the Confirmatory Factor Analysis determined that index of the family satisfactory on happiness was moderate at 3.3. The other causes that could reduce happiness were attributed to challenges of family breakdown such as divorce, separations, early teenage pregnancies and social economic pressures to improve households living standards. Between the year 2017 to 2020, an average of, over 200 people joined the smallholder markets as vegetable vendors, which was an indicator that the smallholder informal markets offered the rural households with employment opportunities. The types of employment were self -owned employment such as; food kiosks, retail shops, middle men function, transport system, water vending and tailoring to support their vegetable vending business. The confirmatory Factor Analysis indicated that vegetable vendors' perceived that contribution to employment by smallholder informal markets provided business opportunities and created valuable social economic networks which had a mean range of 3.1-4.2, which indicated a moderate to high contribution on employment opportunities. Social interaction had the benefit of vendors operating in a long value chain with a wide variety of influence emanated from different cultures, expertise, experience and credit worth. The diversity created a learning field, access credit, information and a variety of foods. Children benefitted from education (65%), 45% benefitted by saving and 35% benefitted from health care services through the National Hospital Insurance Fund. The

benefits listed above were an indicator of the well-being of vegetable vendors' households in Nyando Sub County, Kisumu County. The illegality of the informal sector at any time disruption of any kind occurs can revert the gains made. Over 90% of the vendors suggested streamline of the registration of the businesses in the informal sector would be a strategy that would move businesses from illegality to semi-legality for households' social economic stability.

Factors contributing to Household's Vulnerability

The factors that contributed to households' vulnerability were; low access to credit facility as 83% of the vegetable vendors indicated. The physical risks that affected the vendors were congestion along workstation (63%), conflict due to space (70%), which contributed emotional stress. The economic losses included; 75% of the loss of the businesses were caused by pandemics such as COVID-19, 50% of the households suffered food shortage due to seasonality's, 25% lost their goods due to lack of storage and confiscations, and 51% lacked of supply guarantee for daily work consignment, which contributed to their economic stresses that threatened the street vendors' households to further vulnerability of possible loss of income. Lack of registration (100%) was the main source of conflict with the government and the vegetable vendors' households were faced with corruption practices by the government personnel such as bribery (80%), fear and harassments (90%), eviction (44%), any of those disruption made the households vulnerable, a threat to their income. Finally, environmental risks included: poor access to safe and clean water (95%), poor sanitation (98%), dust pollution (74%), unmanaged damp site (73%) and traffic fumes (57%) all those factors contributed

to bad health slowed down businesses. Martha's vulnerability theory is in agreement with the suffering of human kind, she acknowledged that all human beings were born vulnerable and along the journey growth and development, challenges are inevitable and there will always be need to give support from the relevant arm of government or society for them to build confidence and continue with life. The vegetable vendors in the smallholder informal markets needs government interventions to streamline the sector and improve the work environment that supports more than 80% of the rural population for sustained households' livelihoods'.

5.4 Recommendation of the Study

From the study findings, the following recommendations were made:

- i. The study established that vegetable vending was an important source of income for rural households and contributed to the improvement of households' livelihood. It would be necessary for the National government to review land use planning policies in tandem with the people's culture as proposed by post-modernism theory of economic development. The vendors operating in the informal sector would quickly associate with the trade guidelines that are based on some traditional concept to life. Rather than being forced to adhere to the rigid post - colonial laws which were designed for ideal cities at the expense of poor peoples' livehoods that required alternative source of incomes for survival. The hybrid cities rules would remove the phobia of business registration process ambiguity and shorten procedures required to streamline the sector.
- ii. More than 67% of the vegetable vendors' households had adequate food between the months of August to December, an indicator that those households were food

deficient for more than half a year. Through the Likert scale of 1-5, a high mean of between 4.3-3.7 on agreement of provision of a variety of dietary and preferred food at household level was attainable. The mean on the provision of food rich in carbohydrate and green vegetable was high (4.1), and household ate at least three meals per day with a mean of 4.2 for vendors operating the smallholder informal markets. When the vegetable vendors' households underwent shocks like those caused COVID-19 pandemic, the study showed that 83% of those households accessed credits from their Merry-go-rounds to revamp their businesses and allocated some of that funds for family food. Vegetable vendors also attempted to reduce household shocks, by purchasing food items in bulk at discounted costs, reduced portion of food, reduced number of meals but at very low to low mean. To mitigate issues on food shortage and loss of income that emanated from all sorts of adversity would have been better solved through social safety nets by the government such as government remittances, universal health care facility and zero rated loans to help revamp such businesses.

- iii. Well-being of vegetable vendors' households was measured by the index of the family satisfactory on happiness. The rating was determined by mean obtained from a Likert scale of 1-5, and an overall mean of 3.3 was achieved that showed households were moderately happy with the provisions received from the smallholder informal markets in supporting their livelihoods. An average of, over 200 unemployed people joined the smallholder informal markets as vendors within a period of three years. The confirmatory Factor Analysis indicated that vegetable vendors' perceived that contribution to employment by smallholder

informal markets, as having provided business opportunities and created valuable social economic networks among stakeholders and the importance was rated with a mean range of between 3.1-4.2. The importance of the smallholder informal markets contribution on employment opportunities was rated as moderate to high. Social interaction presented an assorted advantages of new cultures, expertise, experience and credit worth. The vendors benefitted from learning new skills, access to credit facility, access to information and a variety of foods. While other members of the households also benefitted from children accessing better education, improved saving in local village saving and loaning groups and members of the household were also able to access better health care services through the National Hospital Insurance Fund. The informal sector was a basket of opportunities for rural households social-economic activities. Favourable policy review and a planned towns and cities inclusive of vendors' activities would create model cities specific to our concepts of economic growth and development based on our growth impetus. Lobby groups together with government planners and policy reviewer's/ makers must have the interests of the majority population. Failure in this sector will contribute to the growth of slum cities having a haven of criminals, insecurity and anarchy.

- iv.** Vulnerability: households' vulnerability was; low access to credit facility by the majority vendors, congestion along workstation, space conflict loss of business to calamities like COVID-19, shortage of supply, poor storage and of supply guaranteed to loyal customers'. (51%), corruption practices by the government personnel such as bribery all contributed to business disruption and loss of income

by vendors. Other risks were associated with the environmental such as poor access to safe and clean water, poor sanitation, dust pollution unmanaged damp site and traffic fumes which affected health and slowed down businesses. Martha's vulnerability theory suggests that the vegetable vendors in the smallholder informal markets needs government interventions to streamline the sector and improve the work environment that supports more than 80% of the rural population for sustained households' livelihoods'. Modernization of market structure with assorted facilities, such as the establishing of a vocational training centre for the bottom of the pyramid could improve their literacy level enhances business performance. The prayer room, baby's corner, proper rest rooms, cold room for storage and habitable stalls will address physical emotional, health and environmental stresses and would minimize vulnerability experienced by all the stakeholders' transacting in those markets. Finally, contracting farming with vegetable producers who have irrigation facilities for Consistent supply of goods – will create and retain customers, suitable for business continuity.

5.5 Areas for Further Research

- i. Research on contribution of on-line informal markets on employment of youth households' livelihoods. A fast growing source of employment and income earner without much documentation in Kenya and developing countries.
- ii. Research on modern market facilities and their effects on waste reduction for increased income for street vegetable vendors' households' livelihoods. A new research area that is required to establish the contribution of modern facilities on vegetable vendors' households' income

- iii. Research on effect of exposure to physical, socio-economic, environmental and legal risks encountered in the informal markets and the type of health challenges they confer on the vegetable vendors operating their businesses in smallholder informal markets.

REFERENCES

- Acho, Chi. (2002, November 13). The mobile street food service practice- in the urban economy of Kumba. *Tropical Geography*. Retrieved 2012, from [www.geo.ntnu.edu.tw/faculty/moise/words/infor/economy/retail % 20 geography/r24.pdf](http://www.geo.ntnu.edu.tw/faculty/moise/words/infor/economy/retail%20geography/r24.pdf)
- A., C. M. (2005). Rethinking the informal economy-Linkages with the formal economy regulatory environment,. *World Institute for Development Economic Research (UNU-WIDER), Helsinki*.
- Adhikari, D. B. (2011). Income Generation in Informal Sector: a Case Study of the Street Vendors of Kathmandu Metropolitan City. *Economic Journal of Development Issues*, 13 & 14(1-2), 9-12.
- Agadjanian, V. (2002). Competition and Cooperation among Working Women in the Context of structural Adjustment: The case study of the Street Vendors in La-Pal-El Alto. *Developing Society*, (18):259-285.
- Agbadi, P. (2020). Agbadi et al., 2017. Household food security and Adequacy of child diet in the food insecure region of north Ghana. *PLoS one*, 12(5), 62-70. <https://doi.org/10.1371/journal.pone.0177377>
- Andreassen,R. and Tribhuwan, R. D. (2003). *Streets of insecurity: A study of the pavement dwellers in India*. New Delhi: Discovery publishing house press.
- Ahmed, M. et. al (2006). *Rural Development and Poverty Alleviation through Promotion of Rural Non-Farm Activities in Asia- Pacific Region*. Nairobi: Government press.
- Ahmed, S (2015) Cooking up a storm: community-led mapping and advocacy with food vendors in Nairobi's informal settlements. IIED, London. <http://pubs.iied.org/10734IIED>.
- Akinyele, L. (2007). *Study on Street Vendors: Characteristics of food vendors and consumers-implications for quality and safety in Ibadan*. Ibadan, Nigeria.

- Alene, A. E. (2008). *Smallholder market participation under transactions costs: Maize supply and fertilizer demand in Kenya*. Nairobi: Government press.
- Al-Jundi SA, Al-Janabi HA, Salam MA, Bajaba S, Ullah S. (2022). The Impact of Urban Culture on Street Vending: A Path Model Analysis of the General Public's Perspective. *Front Psychol*;12:831014. doi: 10.3389/fpsyg.2021.831014. PMID: 35237202; PMCID: PMC8882852.
- Alila, P.O. and Mitullah, W.V. 1999b. (1999b). *"Overview of women street vendors in Kenya and Policies and Regulations Applicable to them in Nairobi, Kisumu, Migori, and Machakos"*. International Development Research Centre (IDRC). Nairobi: Kenya Government Press.
- Amin, M. &. (2015). *Are Large Informal Firms More Productive than the Small Informal Firm? Evidence from Firm-Level Surveys in Africa*. . World Development.
- Anxo,D, Messenger, J.C., Bigsten, A. (2004, 1989). "Working time: research development", *Employment and Social Affairs, Industrial change; Working Time and Workers Preference in Industrialized Countries: Finding balance; Working hours and productivity in Swedish manufacturing: Scandinavian Journal of Economics*, 91(3), 613-19.
- Arjun, K. S. (2008). *Report on conditions of work and promotion Livelihoods in the unorganized sector*. New Delhi: Academic Foundation.
- Ayinde, J. O., Torimiro, D. O. and Koledoye, G. F. (2014, June). Department of Agricultural Extension and Rural Development. *Agricultural Extension*, 18.
- Asiedu, A. B., & Agyei-Mensah, S. (2008). Traders on the Run: Activities of Street Vendors in Accra Metropolitan Area, Ghana. *NorskGeografisk Tidsskrift-Norwegian Journal of Geography*, (62): 191-202.
- Banerjee, A. V. (2007). "The Economics Lives of the Poor". *Journal of Economic Perspective*21 (1), 141-167.
- Banik, W. (2007). *Agriculture for development*. Washington, DC.: NY.

- Barret, C. (2008). *Smallholder market participation: concept and evidence from Eastern and Southern Africa*. Food Policy. 33 (4), S.A.
- Batte, M. H. (2007). *Putting money where their mouths are: consumer willingness to pay for multi-ingredient, processed organic food products*. Food policy 32:145-159.
- Bell, J. S., & Loukaitou, S. A. (2014). *Sidewalk Informality: An Examination of Street Vending Regulation in China*. *International Planning studies*, 1-24.
- Benjamin, N. &. (2014). *Informality, growth, and development in Africa*. WIDER Working Paper 52. Conference Proceedings of Accounting & Business in the 4IR ISBN: 978-0-6398115-0-5 24 . *International Conference of Accounting & Business*. World Bank Publications.
- Benjamin. Nancy, Mbaye, Ahmadou Aly. (2012). *The Informal Sector in Francophone Africa: Firm size, productivity and Institution*, *Africa development Forum*. Washington D.C: World Bank and Agence Francaise de Development @ World Bank.
- Berdegúe, J. B.-2. (2008). *Innovative practice in connecting small-scale producers with dynamic markets*. *Re-governing Markets*.
- Betcherman, G., Dan, A., Luihstra, A. and Ogawa, M. (2001). *Labour adjustment, Non-standard work and employment programs: Korea in an OECD context labour market reforms in Korea*. Policy, Korea.
- Bhowmik, S. K. (2005). *Street Vendors in Asia: A review*. *Economic and Political Weekly*. doi:10.2307/4416705
- Bhowmik, S.K. (2010). *Street vendors in global urban economy*. New Delhi: Routledge.
- Bhowmik, S. K. (2012). *Street vending in ten cities in India*. Delhi National Association of Vendors of India.
- Birch, I. (2018). *Agricultural Productivity in Kenya: barriers and opportunities*. 4 KD Helpdesk Report. Brighton, UK: Institute of Development Studies.

- Bromley, R. and Mackie, P. (2009). Displacement and New Space for Informal Trade in the Latin American City Centre. *Urban Studies*, 47(7), 1485-1506.
- Bromley R. (2000). Street Vending and Public Policy: A GLOBAL REVIEW. *International Journal of Sociology and Social Policy* 20 (1/2), 1-28.
- Bruhn, M., & McKenzie, D. (2014). *Entry regulation and the formalization of microenterprises in developing countries*. World Bank Research Observer, 29(2),186-201
- Bunjun, K. N. (2012). *Consultancy report on progress of successful African women entrepreneurs, Nairobi*. UNICEF, Nairobi, Kenya.
- Burnet, L. D. and Manji, F. (2007). *From slave trade to free trade undermines democracy and justice in Africa*. Nairobi, Kenya: Fahamu.
- Butale, H. S. (2011). *Urban Informal Sector profile, linkages and constraints: A case of Francistown*. University of Botswana.
- Bonnet, F. J. (2018). *Women and Men in the Informal Economy: A Statistical Brief*. Geneva: WIEGO AND ILO.
- Bonnet, Florence, Joann Vanek and Martha Chen. (2019). *Street Vendor Livelihoods and Everyday Politics in Hanoi, Vietnam The Seeds of a Diverse Economy?* Manchester UK: WIEGO.
- Classier, N. and L. Addati. (2007). *Expanding women's Empowerment Opportunities: "Informal economy Worker and the Needs for Child care"*. ILO. Geneva: Mimes.
- Castels, M., & Portes, A. (1989). World underneath: The origins, dynamics and effects of the informal economy. *The Informal Economy: Studies in Advanced and Less Developed Countries*. (pp. 11-37). The Johns Hopkins University press,1989, 11-37.
- Chandra A. and Jain Rajul (2015). *Property Rights of Street Vendors center for Civil Society*
- Chandrasah Chauhdhary. (2013). *Indian Street Vendors comes out of Shadows view*.

- Chapoto, A., A. Mabiso and A. Bonsu. (2013). *Agricultural Commercialization and Land Expansion and Home-grown Large Scale Framers*. Ghana: IFPRI.
- Charmes, Jacques. (1998a.). *Informal sector, Poverty and Gender: A review of Empirical Evidence*. Washington D.C: World Bank
- Charmes, Jaques. (1998b.). *Women Working in the informal sector in Africa: New methods and New Data*. United Nations Secretariat, Statistics Division, New York.
- Charmes, Jacques. (1998c). *Street Vendors in Africa: Data and Methods*. United Nations, Statistic Division Secretariat, New York.
- Charmes J. (2002). *Les Origines du concept de secteur informel et récente définition de l'emploi informel*. World Development Report Background Paper, World Bank, Washington D. C.
- Charmes J. (2012). The informal economy worldwide: trends and characteristics. *Margin. The Journal of Applied Economic Research* 6 (2), 103 - 132.
- Chen M, Roever S, Skinner C. (2016). Editorial: Urban Livelihoods: Reframing Theory a Policy. *Environment and Urbanization* 28 (2), 331 - 342.
- Chen, M. a. (2012). *The infromal economy: Definations, theories and policies. Women in informal economy globalizing and organizing: WIEGO Working paper 1*. World Bank.
- Chen, M. A., Vanek, J. and Carr, M. (2004). *Mainstreaming informal employment and gender in poverty reduction*. Common wealth secretariat.
- Chen, M. and G. Ravendran. (2011). *Urban Employment Trends in India*. WIEGO Working Paper.
- Chen, M. R., Jhabvala, and Francis Lund. (2001). *Promoting the Informal Economy: a Policy Framework*. Background Paper for ILO Task force on the Informal Economy, ILO, ILO Task force, Geneva.

- Cohen, L. (2002). *Research Methods in Education* (6th ed.). Taylor and Francis Group, London and New York.
- Cohen, M., Batt, M. and Horn, P. (2002). *Women street vendors. the road to recognition. seeds*. New York: Population Council, pp. 24.
- Coles, C. and J. Mitchell. (2011). *Gender and Agricultural Value Chains: A Review of Current Knowledge and Practice and Their Policy Implications*. ESA Working Paper 11(5): 1-29.
- CUE Report. (2014). *Inclusive Design for Street vendors in India*. University of Ahmedabad, Center for Urban Equity (CUE).
- Cummins, Dand Harvey, E. C. (1996). *Woman food producers in Barbados. National summar*; Inter-American Institute Corporation on agriculture.
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Merrill. (3rd ed., pp. 22-23). Sage.
- Daniels, S. (2011). *Africa's Informal Economy Can Boost Innovation. Analogue Digital*.
- Daze A, Ambrose K, Ehrhart C, (2009) *Climate vulnerability and capacity analysis handbook*.
Care International, Geneva, Switzerland.
- Dean Karla, Beniamino Savonitto, Bram Thuysback and Christopher Udry. (2016) *Impact of saving groups on the lives of the poor*. Yale University, Department of Economics; New Haven.
- Defiesta G, Rapera C (2014) *Measuring adaptive capacity of farmers to climate change And variability: Application of a composite index to an agricultural community in the Philippines. J Environ Sci Manage* 17(2):48–62
- Deng W.J. (2014) *Difficulties, countermeasures and path selection for target poverty alleviation*

Rural Economy (in Chinese) 6 (2014), pp. 78-81

Deng, W. (2016). Difficulties, Countermeasures and Path Selection of Accurate Poverty Alleviation [J]. *Rural Economy*, (6)

De Paula, A., & Scheinkman J. A. (2011). The informal sector: An equilibrium model and some empirical evidence from Brazil. *Review of Income and Wealth*, 57(s.1), S8-S26.

De Soto, H. (Director). (1989). *The Economics of the Informal Sector*, Policy Research Working Paper: World Bank Policy Research Department , Macro-economics and Growth Division [Film]. World Bank.

Dey, D. and Dasugupta, S. (2009). *Integration of an informal economy with globalizing process. a study on street vendors of Kolkata*. Retrieved June 10, 2013, from <http://ssrn.com/abstract=1584623>

Ding, J., Wang, Z., Liu, Y., & Yu, F. (2020). Rural households' livelihood responses to industry-based poverty alleviation as a sustainable route out of poverty. *Regional Sustainability*, 1(1), 68-81.

Douglas, A. N. (1998). *Missing Person: A critique of the Social Science*. Berkley, California: University of California Press.

Dyer, G. A., Boucher, S., and J. E. Taylor. (2006). The economics of poverty traps and persistent

E. B. (2014). *Informal and Green? the forgotten voice in the transition to green economy: IIED*

Discussion Paper. London: IIED

London.<http://pubs.iied.org/16566IIEDISBN978-1-78431-006-6>.

Ellis F, (2016). *Rural livelihoods and diversity in developing countries*. Oxford University press,

England, UK.

- Elizabeth Stuart, Emma Samman and Abigail Hunt. (2018). *Informal is the new normal improving lives of workers at risk of being left behind*. Manchester, UK: WIEGO.
- Esim, S. and Kuttat. (2002). "Women's Informal Employment in Palestine: securing a livelihood Against All Odds". *Economic Research Forum. Background Paper for the 9th Forum*. Cairo: ERF.
- Estelle, B. C.-F. (2004). *Linking small holder farmers to markets*. Final report, World Bank, NY.
- Eyisi D., 2016. The Usefulness of Qualitative and Quantitative Approaches and Methods in Researching Problem-Solving Ability in Science Education Curriculum. *Journal Education Practise*, 7(5).
- Fan, S., Rue, C. (2020). The Role of Smallholder Farms in a Changing World. In: Gomez y Paloma, S., Riesgo, L., Louhichi, K. (eds) *The Role of Smallholder Farms in Food and Nutrition Security*. Springer, Cham. https://doi.org/10.1007/978-3-030-42148-9_2
- Falla, A. V. (2012). *Legal empowerment of informal workers*. Colombia.
- FAO, UN and WHO. 2021. *Safety and Quality of water used with fresh Fruits and Vegetables*. ISSN 1726-52-74.
- FAO, IFAD, UNICEF, WFP and WHO. 2022. *The State of Food Security and Nutrition in the World 2022. Re-purposing food and agricultural policies to make healthy diets more affordable*. Rome, FAO. <https://doi.org/10.4060/cc0639en>
- Federation of Kenya (FKE) and International Labour Organization (ILO), 2021, *The Informal Economy in Kenya*. https://www.ilo.org/wcmsp5/groups/public/---ed_ent/doc/pub/wcms_820312.pdf

- Fischer, G., A. Gramzow, and A. Laizer. (2017). Gender, Vegetable Value Chains, Income Distribution and Access to Resources. *European Journal of Horticultural Science*, 82 (6): 319-327.
- Fonchingong C. C, (2005). Negotiating Livelihoods beyond Beinjing: The burden of women food vendors in the informal economy of Limbe Cameroon. *International Social Science Journal* 57(184), 10. 1111 /j. 1468- 2451. 00548. x, 243-253.
- Fox, L. (Director). (2012). Poverty Reduction and Economic Management Unit; Household Enterprise in Sub-Saharan Africa. Why they Matter for Growth, Jobs and Livelihoods [Film]. World Bank.
- Gajigo, O., & Hallward- Driemeir, M. (2012). *Why do some firms abandone formality? Evidence from African Countries*. African Development Bank, Working Paper series.
- Gebru, K.M.; Leung, M.; Rammelt, C.; Zoomers, A.; van Westen, G. (2019). Vegetable Business and Smallholders' Food Security: Empirical Findings from Northern Ethiopia. *Sustainability*, 11, 743. <https://doi.org/10.3390/su11030743>
- Godfrey, P. C. (2011). Toward a theory of the informal economy. *The Academy of Management Annals*, 5(1), 231-277.
- Government of the Republic of Kenya. (2007). *"Kenya Vision 2030"*. Nairobi: Kenya Government press.
- Government of the Republic of Kenya. (2017). *Economic Survey*. Nairobi: Kenya Government press.
- Grant, C. a. (2014). Understanding, Selecting and Intergrating a Theoretical Framework in Dissertation Research: Creating the Blue print for "house". *Administrative Issue Journal: Connecting, Practice and Research*, 12-22.
- Handing, A., and A. Peter (eds). (2002). *Conceptual Framework, In Innovations in the Health Service Delivery: The Corporatization of Public Hospitals*. Washington D.C: World Bank.

- Hardi, A. H., A. Selamat, J., Shamsudin, M. N., Radam, t. (2010). Demand for food safety attributes for vegetables in Malaysia. *Environment Asia*, 3, 160-167.
- Hart, K. (1973). Informal Market Opportunities and Urban Employment in Ghana. *The journal of African Studies*, 11 (1): 61-69.
- Henderson, J.C., S. Young, Poon, P. and Biwei, X. (2011). Vendors Centers as tourist attractions: The case of Singapore. *International journal of Hospitality management*.
- Hopkins, R., Neven, D. & Reardon, T. Commercial Cooperatives Union. (2005). *Case Studies of Farmer Organizations Linking to Dynamic Markets in Southern Africa: The Lubulima Agriculture and Commercial Cooperatives Union. Unpublished report for USAID (October)*. USAID (October).
- International Federation of Red Cross (IFRC) and Red Crescent Societies (RCS), 2016. Road map to community resilience - Internationalizing the Framework for Community Resilience 1310403 12/2016
- ILO. (2003). *Report 1, General Report, Seventeenth International Conference of Labour Statisticians*. International Labour Organization, Geneva.
- IMF. (2005). *Kenya Poverty Reduction Strategy Paper*. Washington D.C: IMF. Retrieved 11 5, 2005
- International Labour Organization. (2018). *Women and Men in the informal economy: a statistical picture*. International Labour Office, Geneva.
- Irwan, J. S. (2022). Life Survival, Social Network, And Social Capita Matrilineal Of Minangkabau Women Street Vendors During Covid-19 Pandemic In West Sumatera. *Jish*, 11(1), 12549-6662. <https://doi.org/http://dx, doi.org| 10.023887/jish>
- Ismail N.W., and Mahyldeen J. M. 2015. The Impact of Infrastructure on Traders and Economic Growth in the selected Economies in Asia. ADBI Working paper 553.

Tokyo: <http://www.adb.org/publication/impact-infrastructur-trade-economic-growth-selected-economic-asia/>

Jabara, C. (1985). *Agricultural Pricing Policy in Kenya*. Government Press.

Jayne, T. S. (2003). *Smallholder income and Land distribution in Africa: implications for poverty reduction strategies*. Food policy 28 (3).

Jayne, T. S., Chamberlin, J., Traub, L., Sitko, N., Munyanga, M., Yeboah, F. K., Anseenwe, W., Chapoto, A., Wineman, A., Nkonde, C. and Kachele, R. (2016). Africa's changing farm size distribution patterns: The Rise of Medium -Scale farms. *Agricultural Economics*, 47, 197-214. doi:10.1111/agrec.12308

Joshi K. (2018, November 12). " Conditional" Citizens? Vendors in the streets (and courts) of contemporary India. U. *Articulos Journal of Urban Research*, 17-19.

Kassie M, Hurni K, Zeleke G, Tegegne B, Kassawmar T, Teferi E, ... Kebebew Z., (2015)

Economics of Land Degradation (ELD) Ethiopia case study: Soil degradation and sustainable land management in the rain fed agricultural areas of Ethiopia: an assessment of the economic implications. Report for the Economic of Land Degradation Initiative

Karthikenyan, R. and Mangaleswaran, R. (2013). Quality of Life Among Street Vendors in Tiruchirapillicity. *International Journal of Social Science*, 2(12), 18-28.

Kartik, C. R. and Srikanta, C. (2004). *Readings in the world development: growth development and poverty alleviation in Asia Pacific*. ASA, New York: Nova Science publishers.

Kattuman, P. & Conway, C. (1996). *Small business growth some further evidence*. University of Durban.

Kebbed, G. (2004). *Living with Urban Environmental health risks: the case of Ethiopia*. Burlington: Ashagate publishing Co. USA.

- Keller, K. K. (2006). *Market Evolving After a period of Time*. Amsterdam: North Holland.
- Kenya, R. O. (2008). *First Medium-Term Plan 2008 – 2010 Kenya Vision 2030*. Nairobi: Government Press.
- Kenya, G. O. (2000). *Second Report on Poverty in Kenya: Incidence and Depth of Poverty* Nairobi Central Bureau of Statistics, Ministry of Planning and National Development. Nairobi, Nairobi, Kenya: Government Press.
- Kirsen, J., Mapila, M., Okello, J. and De, S. (2013). *Managing Agricultural Commercialization for inclusive growth in Sub-Saharan Africa*. Global Development Network. Retrieved from <http://www.gdn.int/managing-agriculture-commercialization-inclusive-growth-subsaharan-africa>.
- Kimani-Murage, E., Schofield, L., Wekesa, F., Mohamed, S., Mberu, b., Ettarh, R., Egondi, T., Kyobutungi, C. and Ezeh, A. (2014). "Vulnerability to Food insecurity in Urban Slums: Experiences from Nairobi, Kenya". *Journal of Urban Health*, (91): 1098-1113.
- KBNS. (2020). *Informal Sectors Skills and Occupatios Survey (ISSOS) bASIC rEPORT*. Nairobi: Kenya Governmrnt Press.
- Lane, J. E. (2000). *The Public Sector: Concepts, Models and Approaches*. New-burry Park and New-Delhi. London: sage Publications.
- Leandro Medina, Andrew Jonelis and Mehmet Cangul. (2019). *The informal economy in Sub -Saharan Africa: Size and Determinants*. IMF WP/17/156.
- Leng, Z. & Ding, J. (2018). Regional poverty analysis in a view of geography science. *Acta Geogr. Sin*, 73, 232-247.

- Lopez-Ruiz M, Benavides FG, Vives A, Artazcoz L. (2017). Informal employment, Unpaid care work, and health status in Spanish-speaking central American countries: a gender-based approach. *International Journal of Public Health*, 62:209-18.
- Lund, F. (1998). *Women Street Traders in Urban South Africa: A Synthesis of selected Research Findings*. Research Report.
- Lyons, M, S. S. (2005). Creating Urban Social Capital. *Urban studies* 42 (7), 1077-1097.
- Lyons, M. and Snoxell, S. (2005). Creating Urban Social Capital: Some Evidence from Informal Traders in Nairobi. *Urban Studies*, 42(7), 1077-1097.
- Machio D. M., 2020. Access to Credit and Growth of Micro-Small and Medium scale Enterprise in Kenya
- Mahadevia, D. (2012). *Decent work in Ahmedabad: An integrated approach*. Pacific working paper series, ILO, Asia, Ahmedabad.
- Maloney, W. and J. Nunez. (2004). *"Informality trends cycles" Policy Research Working Paper Series No. 4078*. World Bank. Washington D.C: World Bank.
- Maloney, W., Jordan, G. and Mclaughlin. (1994). Interest Groups and Public Policy: The Insider and Outsider Model Revisited. *Journal of Public Policy*, 14(1), 17-38.
- Marshall, A. (1927). *Principles of Economics*. London, UK: MacMillan.
- Markham, S. (2015), Four Things to Know about Women's Ownership Rights, International Food Policy Research Institute (IFPRI), <http://www.ifpri.org/blog/four-things-you-need-know-about-womens-land-rights> (accessed on 20 January 2019).
- Martnez, S. e. (2010). *Local Systems: Concepts, Impacts, and Issues*. Agriculture, Economic Research Services, US.
- Matchmaker Associates. (2017). *Horticulture study phase I: Mapping of production of fruits and vegetables in Kenya*. Nairobi: Kingdom of the Netherlands. Retrieved from <http://www.agroberichtenbiutenland.nl/>

- Mercenier, J. S. (1994). *Structural Adjustment and growth in a highly indebted market economy: Brazil: J. Mercenier and T. N Srinivasan, eds, Applied general equilibrium and economic development*. Ann Arbor: University of Michigan Press.
- Minot, N. and M. Ngugi. (2004). *Are Horticultural Exports a Replicable Success Story? Evidence from Kenya and Cote d'voire. EPTD Discussion Paper 120*. Washington D.C, USA: International Food Policy Research Institute.
- Minot, N. and Ngigi, M. (2004). *Are Horticultural Exports a Replicable Success Story? Evidence from Kenya and Cote dl Voire*. Washington D.C.: IFPRI Press.
- Minten, B., Barrel, C. B., submitted for publication. (n.d.). Agricultural Technology, Productivity, Poverty and Food Security in Madagascar. *World Development*.
- Mitchell, J. and Coles, C. (2011). *Markets and Rural Poverty. Upgrading in Value Chains*. International Development Research Center and Earthscan, Ottawa, London, Washington D. C.
- Mitullah, W. (2003). *Street trade in Kenya: The contribution of research in policy dialogue and response urban research symposium on urban development for Economic growth and Poverty Reduction*. Urban Development for Economic growth, Washington DC.
- Mitullah., W. (2003). *Street Vending in Africa Cities: Synthesis of Empirical Findings from Kenya, Cote d'voire, Ghana, Zimbabwe, Uganda and South Africa*. Washington DC. World Bank.
- Muendo, K., Tschirley, and M. Weber. (2004, 08). *Improving Kenya's Domestic Horticultural Production and Marketing System: Current Competitiveness, Forces of Change, and Challenges for the future*. Nairobi: Tegemeo Institute.
- Mugenda, O. M. and Mugenda, A. g. (2008). *Research Methods: Qualitative and Quantitative Approaches*. Nairobi - Kenya: ACT Press,
- Muiruri, P. (2010). *Women Street Vendors in Nairobi, Kenya: A Situational and Policy Analysis within a Human Right Framework*. Addis Ababa, Ethiopia: OSSREA.

- Musyoka, M., Lagat, J., Ouma, D., Wambua, T. and Gamba, P. (2010). "Structure and Properties of Urban Household Food Demand in Nairobi, Kenya: Implications for Urban Food SECURITY". *Food Security*, (2): 179-193.
- Munro, L. (January, 2011). *A Literature Review on Trade and Informal Labour Markets in Developing Countries*. Geneva: Wiego.
- Mutopo, P. (2014). Belonging and Rural Livelihoods Women's access to land and non - permanent mobility, at Merivale farm. *ErdKunde* 68(3), 197-207.103. 112/erdkunde.
- Nittaya, W. (2014). Street vending phenomena: A literature review and research agenda, 2013. *Wiley periodicals, INC*, p. 56 (1).
- Nkululeko, J. N., Mashonganyika, S., NCUBE, N., & Nosizo, D. (2014). Informal Economy as a Source of Livelihood in Zimbabwean Urban Areas: The case of Bulawayo Metropolitan Province. *Journal of Scientific and Research Publications*, 4(1), 1-8. NSIR.
- Obare, G., W. Omamo, and J. Williams. (2003). Smallholder Production Structure and Rural Roads in Africa: The case of Nakuru District, Kenya. *Agricultural Economics*, 28(3), 245 -54.
- Olwande, J., Smale, M.K., Place, F. and Mithofer, D. (2015). Agricultural Marketing by Smallholders in Kenya: A comparison of maize, kale and dairy. *Food policy*, 52, 22-32. doi: 10.1016/j.gfs.
- Omamo, W., Obare, and Williams. (1998). Transportation Costs and Cropping Choices: An Application to Siaya District, Kenya. *American journal of Agricultural Economics*, 80 (1), 116 - 23.
- OECD. (1997). *Globalization and small and medium sized enterprises, principles of corporate governance*. Paris: OECD.
- OECD. (2007). *Agricultural Policies in OECD Countries: Mand E 2007*. [http:// www.oecd.org](http://www.oecd.org). Retrieved April 2009

- Ogega, J. K. (2020). An assessment of households food security and coping strategies in Uasin Gishu County, Kenya: A case of Kuinet ward. *JHHS*, 25(6), 62-70.
<https://doi.org/10.9790/0837-2506046270>
- Oino, P, G. (2017). “Household food-resource handling Procedures and Food Security in Rural Kenya: Experiences from Gucha Sub-County, Kisii County, Kenya. Ph.D. Thesis, Moi University, Kenya.
- Oino, P G, Kareithi, J & Sorre B. (2017). The Effects of Pre-Harvest Practices on Food Loss in Gucha Sub-County, Kisii County, Kenya. *IIARD – International Journal of Social Sciences and Management Research* 3(8): 26-33.
- Orodho, A.J. (2003). Essentials of Educational and Social Science Research Methods. DOI: 10.4236/ahs.2014.34016
- Pamela Abbott and Claire Wallace. (2009). Patterns of Participation in the Formal and Informal Economies in the Common Wealth of Independent States. *International Journal of Sociology*, 39(2).
- Parker, R. and Sommer, M. (2011). Handbook on global public health. *Routledge*.
- Peattie, K. A. (1998). The marketing mix in the 3rd age of computing. (15 (2/3)), pp. 142-50.
- Porter, M. (1985). *Competitive Advantage*. New York: Free Press.
- Poulton, C., G., Hazell, P., Doward, A., Kydd, J., and Stockbridge, M. (2008). *Commercial Agriculture in Africa: Lessons from Success and Failure*. Sub-Saharan Africa (CCAA) study.
- Potts, D. (2008). The urban Informal Sector in Sub-Saharan Africa: From bad to good (and back again). *Development Southern Africa* 25 (2), 151-156.
- Prospects, G. E. (2019). *Growing in the Shadow: Challenges of Informality*. Geneva: WEIGO.
- Recaud S. (2018). "Informal" trading street in Kisumu, Kenya. *Articulo-Journal of Urban Research*, 17-18.

- Roesel, K. and Grace, D. (eds). 2014. Food safety and the informal markets: Animal products in sub-Saharan Africa. London, UK: <https://hdl.handle.net/10568/42438>. doi.or/104324/9781315745046.
- Roever S, S. C. (2018, June 16). *Street vendors and cities Environment and Urbanization*. Retrieved from <http://wiego.org/publication/street-vendor-and-cities>.
- Roever, S. (2014). *Informal Economy Monitoring Study Sector Report: Street Vendors. Manchester, UK: WIEGO. Kigali - Rwanda: Government Press; Official Gazette, 01/03/2013.*
- Sagaya, A. (2019). Livelihood strategies and household food security of vegetable street vendors in Morogoro town, Tanzania: an empirical analysis (Doctoral dissertation, Sokoine university of agriculture).
- Saha, D. (2011). Working life of street vendors in Mumbai. *The Indian Journal of Labour Economics, 54(2)*.
- Semazz, J. B. (2020). Households Determinants of Food Security in Rural Central Uganda. *AJAR, 16(9), 149-92*. <https://doi.org/10.5897/AJAR, 2020.149.9W>; <https://www.academicjournals.org/AJAR>
- Sepadi, M. M. (2022). Environment and Occupational Health Exposures and Outcome of Informal Street Food Vendors in South Africa: A Quasi -systematic review. *International Journal of Environmental Research Public Health, 19(3)*. <https://doi.org/10.3390/ijerph 19031348>
- Schneider, F. Buehn, A., Montenegro, C. F. (2010). *"Shadow of economies of the world: New estimates for 162 countries from 1999 - 2007*. Policy Research. Washington D. C: World Bank.
- Sinha, M. (2011). Public service, happiness of all, human dignity is edifice of our social values: LG [Photograph]. Kashmir Images.

- Spurgeon, A. (2003). *Working Time: Its impact on safety and health (ILO and Korean Occupational Safety and Health institute)*. Geneva.
- Simbiocity, U. N. N. (Director). (2018). *The Symbiocity Approach for Sustainable Urban Development [Film]*. Urban Sustainable Review Report ; A Well Planned Agricultural and Industrial Town, Njoro, Nakuru County.
- Sylvain Recaud, J. K. (2018, November 19). Contested Street: Informal Street Vending and its Contradictions. *Articulo - Journal of Urban Research [online]*, 17-18.
- Thiga, V. N. (2013). *Challenges facing women in Micro enterprises in Mathare slums, Nairobi city*. University of Nairobi. Nairobi: Un-published thesis.
- U.-H. I. (2015). *HABITAT III Policy Paper Framework 1- The right to the City and Cities for all*. New York: United Nations.
- UN-Habitat. (2006a). *Rapid Urban Sector Profiling for Sustainability (RUSPS)*. Nairobi: UN-Habitat.
- UN-Habitat. (2006b). *Innovative Policies for Urban Informal Economy*. Nairobi: UN-Habitat.
- Wang, L. Hu, H., & Si, Y., (2018). The Impact of Industrial Poverty Alleviation strategies on the livelihoods' and household incomes of the rural poor: an empirical analysis from Shaanxi Province. *China Rural Economy*, (1).
- World Bank. (2017). *Kenya Economic Update*. Nairobi: world Bank. Retrieved from <http://open.knowledge.worldbank.org/handle/10986/29033>
- World Bank and CIAT. (2015). *Climate Smart in Agriculture in Kenya*. CIAT. Washington D.C: World Bank. Retrieved from <http://cgspace.cgiar.org/handle/10568/69545>
- World Bank Group. (2018). *Kenya Economic Update*. Economic and Planning, Economic. Nairobi: World Bank.
- Weng, X. (April, 2015). *The rural informal economy Understanding drivers and livelihood impacts in agriculture, timber and mining*.

- Yeboah, F. K and Jayne, T.S. (n.d.). *Africa's evolving employment structure*. Development working paper, Michigan State University International. Retrieved from [http://www. ideas.repec.org/p/ags/midiwp/246956html](http://www.ideas.repec.org/p/ags/midiwp/246956html)
- Yeh, L. J., and Chen, Z. (2021). The internationalization-performance relationship of small and medium-sized enterprises: The case of Taiwan's ESCO industry. *Journal of Applied Finance and Banking*, 11(1): 41- 46.
- Zulu, E., Beguy, D., Ezeh, A., Bocquier, P., Madise, N., Cleland, J. and Falkingham, J. (2011). "Overview of Migration, Poverty and Health Dynamics in Nairobi City's Slum Settlements". *Urban Health*, (88): S185-S199.

APPENDICES

APPENDIX I: ROADSIDE MARKET SURVEY-TRADERS

Questionnaire No: Date.....

Name of interviewer.....

Select the Market location: Ahero [] Kapsoit[]

Households profile and Predictors for wealth attainment

1. Name of vendor.....Gender: i) Male.....ii) Female.....
2. Are you a resident...i) yes.....ii) no.....
3. Age.....
4. Marital status (select most recent): i) Married ...ii) Single... iii) divorced...iv) widowed...
5. Religion (select most recent): i) Catholic...ii) Protestant ...iii) Pentecostal...iv) others...
6. Education level (highest level)...i) Primary....ii) secondary...iii) tertiary...iv) others....
7. Name of spouse if available.....Gender: i) Male.....ii) Female.....
8. Type of house.....i) semi - permanent.....ii) permanent.....iii) others.....
9. Do you have family land? Tick appropriate i) yes..... ii) no.....
10. Who owns the land? Tick appropriate i) Male... ii) female.....

Characteristics of informal market

1. How far do you travel from your homestead to reach the roadside market? tick the appropriate i) 1 – 5 Km.....ii) 1 – 10 Km....iii) 5 – 20 Km....iv) 10 – 50 Km.....v) others.....
2. What type of transport do you use to access the road side market (tick the appropriate [] path.....[] earth road [] murrum road [] gravel.....v) others....
3. What made **chose to start your business** along the roadside market ...tick appropriate:
[]Self []through friends []Through family [] others
specify.....

4. How **frequently** do Roadside market **operate** as follows.... *tick the appropriate*) daily.....ii) after every two days...iii) twice weekly....iv) weekly.....v) others... (Season/year-indicate)

5. Where is the **source of the 3 major vegetables** you sell in the market?(kales, tomatoes and onions) *tick the appropriate ones...*

Farms within the market locale [] within the same county [] from other counties []

6. How do you promote your vegetables sale? Please tick appropriate i) word of mouth...ii) quality goods ...iii) constant supply of vegetables.....iv) flexible pricing...v) provision of credit facility...vi) others....

7. How **much quantity** do you buy of priority vegetable (mention vegetable of greatest importance e.g. onions/ kales/ tomatoes) do you buy per given time?... tick the appropriate i) 0.5 bags....., ½ crate.....½ nets... ii) 1 bags....., 1 crate.....1 nets... iii) 2 bags....., 2 crate.....2 nets... iv) 3-5 bags....., 3-5 crate.....3-5 nets...

8. How long do you as a vendor take to sell your produce? *Tick the appropriate*) one day.....ii) two days...iii) three days...iv) 4-7 days.....v) others.....

Informal Markets and income level of vegetable vendors households

1. What **types of jobs are created** by vendors' roadside market activities? *please tick the appropriate*)

transportation [] middlemen [] government regulators [] establishes finance institutions [] security jobs [] Food canteens [] spare part shops [] salon [] attracts other vendors [] others Specify _____

2. How much money from vegetable vending do you averagely spend on food per day?
≤ 100 [] ≤ 101-≥200 [] ≤ 201-≥300 [] ≤ 301-≥400 [] ≤ 401- ≥500 [] > 50128 []

3. How much do you pay as school fees per term for all the children from vending? Estimates KES. ?
≤ 5000 [] 5001-≥10000 [] ≤ 10001- ≥15000 [] ≤ 15001-≥20000 [] > 20001 []

4. How much do you spend to buy clothes for all your children per school term from vending? Estimates KES. ?
≤ 1000 [] ≤ 1001-≥2000 [] ≤ 20001- ≥3000 [] ≤ 3001-≥4000 [] > 4001 []

5. What types of facilities are being established in your area as a result of roadside markets growth?, tick appropriate,

Primary school[] dispensary[] police post [] shops [] bank [] hotel...vii) petrol station[]

6. How do you assess the importance of roadside markets in of terms opening up business trade in your local area? Tick the appropriate

Very important [] important[] moderately important[] unimportant [] very unimportant[]

7. How do these jobs created by activities of vegetable vendors benefit the community? Tick appropriate...

Income generation[] reduction of petty theft [] building of permanent houses/ offices[] reduction in number of school drop outs [] increased literacy[] reduction in domestic violence... vii) better health care facility[] others Specify_____

8. Do you think roadside markets yields better income for vendors? i) Highly agree...ii) agree...iii) indifferent...iv) disagree.....v) highly disagree.....

9. In which way is the income generated rewarding? tick the appropriate) regular contributor to family income.....ii) supports children's education.....iii) financed a new business.....iv) holding elective post.... v) business expansion.....vi) has received training (state which one).....vii) has NHIF card for accessing medical facility....viii) has acquired property -mention....ix) Others....

10. How many people join roadside markets as vendors every year? approximate i) less than 10 people.....ii) 11-40 people...iii) 41- 80 people....iv) more than 100 people.....v) others.....

11. Are the county council market development plans useful in addressing vendors issues of concerns please tick appropriate i) completely useful....ii) useful....iii) fairly useful.....iv) not useful...v) completely not useful...

12. List of facilities lacking? Tick the appropriate: i) infrastructure e.g. toilets....., graded roads....., shades..... ii) securityiii) lighting system.....iii) water points..... iv) proper garbage collection systems....v) others.....

Informal markets and food security of vegetable vendors households

1. How has **income earned** from roadside market activities contributed to your food security? i) highly improved....ii) improved.....iii) moderately improved...iv) not-improved...v) worse off

2. How **times per day** does your family takes meals? I) 3 meals (breakfast +lunch + supper)....ii) two meals.....iii) one meal.....iv) others.....

Informal markets and well-being of vegetable vendors households

32. Who are your main social economic networks? I) suppliers..... ii) customers.....iii) banks.....iv) brokers...v) transporters vi) tax collectors vii) others.....
33. List the type of benefit received by you as a household of vegetable vendor from social economic networks relationships? i) Vegetable supplied on credit...ii) access to loans ...iii) training/seminars...iv) support for social need...v) storage facility...vi) others.....
34. Are these roadside markets social economic networks' relationship's important to vendors businesses? Please tick appropriate. I) very important....ii) important...iii) moderately important...iv) not important...v) very un-important.....
35. List three priority stakeholder, *tick the appropriate* in terms of support offered (s) i) customers....ii) banks.....ii) brokers.....iii) transporters...iv) tax collectors....v) welfare groups....vi) others....
36. How do roadside markets of Households of vegetable vendors activities together with their social economic networks involvement improve vending in terms of income generation for vendors...facilitates *Tick the appropriate*) very high income earnings... ii) high income earning... iii) moderate income ...iv) low income....v) very low income....
37. Do the roadside markets of households of vegetable vendors and their social economic networks have a reliable future for business...i) highly reliable....ii) reliable.....iii) moderately unreliable....iv) unreliable.....v) very unreliable..... vi) Others.....
38. what is the demand for vegetables like (“perception”)....tick the appropriate...i) very high....ii) high...iii) moderate...iv) low.....v) very low....
39. Vegetable vending is a good business, *tick the appropriate* Yes.....No.....
40. If yes, give reasons by selecting the most appropriate i) most household eat vegetables every day...ii) vegetable is a cheap commodity for family meal...iii) vegetables are easily produced.... iv) others.....
41. What is the most pressing issues that jointly affect vegetable vendors and their social economic networks, *please tick the appropriate*...i) HIV-AIDs.....ii) unfair trade.....iii) violation of human rights.....v) mistrust...vi) illiteracy....vii) gender discrimination.....others.....
42. How do other social economic networks influence the behavior of households of vegetable vendors? Please tick appropriate...i) develop better decision making process...ii) taking more risks..... iii) building personal confidence.....iv) working hard...v) working long hours...vi) voice issues of concerns at meetings.....vii) have independent mind.....viii) others

Influence of informal markets on risk vulnerability vegetable vendors households

45. Do you think the roadside markets have contributed to environmental pollution? Please tick appropriate i) very highly polluted...ii) highly polluted....iii) moderately polluted...iv) not polluted....v) very clean
46. List types of pollutants ...Tick the appropriate; i) full of litter...ii) no drainages...iii) several open lamps emitting GHG....iv) windy and dusty....turbid water...iv) lack of flowing water...v) lack/ inadequate toilets.....
47. Are you satisfied with your business being conducted along the roadside? Give reasons tick the appropriate, i) regular produce supplies...ii) credit facilities available...iii) customers available...iv) flexible working hours...v) storage facilities are available...vi) others.....
48. Roadside markets temporary nature affects vendors as follows. ...*tick the appropriate*; i) tiresome – running up and down...ii) low income...iii) fires...iv) small scale / low investment opportunities ...v) susceptible to vandalism vi) frequent demolitions.... vii) health risks due to dust/ rainy, viii) others...
49. List types of challenges experienced at home that is related to vending? Tick the appropriate i) child care neglected...ii) spouse lonely...iii) divorce.... iv) increase domestic violence...v) no proper meals vi) increased teenage pregnancy vii) increased drug abuse by teenage children viii) others.

APPENDIX II: INTERVIEW SCHEDULE FOR STAKEHOLDERS WITHIN INFORMAL MARKETS

Interview No: Date.....

Name of interviewer.....

Households profile and Predictors for wealth attainment

1. Gender: i) Male.....ii) Female.....
2. Type of the stakeholder in the informal market
Producer[] Tax collector[]
3. Education level (highest level)
Primary[] secondary[] tertiary[] others Specify_____
4. Name of the market represented?
Ahero[] Kapsoit[]
5. How many vegetable vendors operate in the market you represent?
6. How does the informal market represented contribute to vegetable vendors income level?
7. How does informal market represented influence vegetable vendors food security at household level?
8. How does informal market represented influence vegetable vendors well-being at household level?
9. Wat are some of the effects of informal markets on vegetable vendors risks vulnerability?

APPENDIX IV: CHECKLIST FOR CROSS-SECTIONAL STUDIES

Coding

Coding has the following components; i) main code, ii) sub-code.

Social economic networks code

Main code: informal market

Sub code: Smallholder vegetable vendors

Main code: Credit facility

Sub code: Type of Organization

Sub-code: Smallholder vegetable vendors saving

Sub-code: smallholder vegetable vendors loan repayment

Main-code: Income

Sub-code: Income from vending spent on re-stocking supply

Main-code: Income

Sub-code: Income from sale of stock

Main-code: Expenditure

Sub-code: food

Sub-code: clothing

Sub-code: education

Sub-code: medication

Main-code: saving

Main code: emerging issues

Sub-code: Environment pollution levels

Sub-code: By-laws governing trade

Sub-code: safety – security light



Common shocks, trends and seasonality faced by entrepreneurs'
Vulnerability concerns - vegetables Shocks:

<u>Vulnerability concerns</u>	<u>Vegetable enterprise</u>
<u>Shocks</u>	
<u>Flood</u>	++
<u>Drought</u>	+ -
<u>Pest and disease</u>	- -
<u>Trends</u>	
<u>High Population</u>	+ -
Local county government	++
Environmental change	++
<u>Seasonality</u>	
Production	+++
Price of vegetable	+
Employment opportunities	+++

Shortage of produce supply	++
----------------------------	----

Mild to strong score: +, ++, +++

No score: -

Marius Charlot Adenidji, E., & Özçatalbaş, O. (2022). A View of Sub-Saharan Africa from the Perspective of Food Security and Gender. IntechOpen. doi: 10.5772/intechopen.106392

APPENDIX V: RESEARCH PERMIT



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APPENDIX VI: PLAGIARISM REPORT

CONTRIBUTION OF SMALLHOLDER INFORMAL MARKETS ON RURAL VEGETABLE VENDORS' HOUSEHOLDS' LIVELIHOOD IN NYANDO SUB COUNTY, KISUMU COUNTY, KENYA

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