Food access in a food system in transition

A comparative analysis of the impact of emerging modern food retail on food access and consumer behavior of low- and middle/high income households in Namuwongo kampala.

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Utrecht, 2015

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Abstract

The main food security issue that urban households face is the access of food. This does not only mean physical access in terms of availability of food and food outlets; but in a monetized urban settings this also means economic access and the need of financial resources to ensure food security. Moreover, recent changes in the food system and the emergence of modern food retail outlets, could potentially influence the food access of urban households. This thesis therefore explores food access of households within the current food retail environment.

Two neighborhoods in Namuwongo, Kampala were chosen as a case study. Here, data from low-income- and middle/high-income households is collected to explore different consumption patterns and food access issues. This has been achieved through: conducting quantitative household surveys and vendor interviews in order to gain an understanding of the significant issues and trends in the food retail sector and consumption patterns; completing a product scan and observations of the different food retail outlets to see what products are available to urban consumers; and conducting focus-groups amongst several respondents of the household survey to put quantitative data in perspective.

Results demonstrate, that although modern food retail is emerging in Kampala traditional retail remains the most important source of food for all households in this study. Modern retail seems to serve a specific purpose for the more affluent households and has little effect on the urban poor. This thesis therefore recommends that policymakers should make efforts in improving traditional systems that will continue to serve the majority of the urban population.

Acknowledgements

This thesis has been facilitated with the help of many people. In particular, I would like to thank my supervisor, Gery Nijenhuis, who offered guidance when needed.

Much gratitude goes towards my two research assistants, Josephine Namikisa and Harriet Aiko, whose dedication and skills were vital for this study. They made the communication with the participants seem effortless.

The process of field research would have been much harder if it wasn't for the help of Cossy, who lovingly took care of my son during the fieldwork period in Uganda.

The actual writing of this thesis would have not been possible without the help of my mum, who cared for my son in Holland whenever it was needed. Also, my sister Suzanne has been of great help by proof reading the thesis.

Most importantly, recognition goes to the respondents of the research for their willingness to participate and share their valuable information.

Webale nyo nyo nyo

Lindy Greftenhuis

August 12th, Enschede

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List of abbreviations

DSIP – Agricultural Sector Development Strategy and Investment Plan

FAO – Food and Agriculture Organization

FDI – Foreign Direct Investment

FFVs – Fresh Fruits and Vegetables

KCCA The Kampala Capital City Authority

HSSP – The Health Sector Strategic Plan

LC – Local Council

PEAP – Poverty Eradication Action Plan

PMA – Plan for Modernization of Agriculture

SAPs – Structural Adjustment Programs

UBOS – Uganda Bureau Of Statistics

UNAP – Uganda Nutrition Action Plan

UNFNP – Uganda National Food and Nutrition Policy

UFNSIP – Uganda Food and Nutrition Strategy and Investment Plan

UBOS – Uganda Bureau Of Statistics

1. Introduction

Even though rapid urbanization and increasing poverty and urban food insecurity is seen throughout cities in Sub-Saharan Africa (SSA), urban food security and food access have not had a prominent place on the research agenda (Crush & Frayne, 2010). Literature on the subject is disproportionately weighted towards the experiences of food insecurity of rural populations**;** food insecurity in rural areas is often linked to famine and declines in food production. Consequently, policy and food security efforts usually tend to focus on stimulating food production while overlooking food problems faced by urban households. Yet, food insecurity in urban areas significantly differs from rural food insecurity; in urban settings food insecurity is not a result of food shortages, but rather a result of the inability of households to access food.

Access to food is one of the four dimensions of the concept of food security as defined by FAO (1996), and the most commonly used one. Accessibility of food in urban environments mostly depends on the individual or household's ability to purchase food, which in turn depends on household income, the price of food and the location of food outlets. Food may be economically accessible (households can afford it) but spatially inaccessible (food distribution channels are located too far away or are difficult to get to). Conversely, food may be spatially accessible (supermarkets are emerging) but economically inaccessible (the food in the supermarket may be unaffordable) (Crush & Frayne, 2011b)

Recent transitions witnessed within global and local food systems has made the study of urban food security especially relevant at this time. The diverse array of present "food systems" is changing rapidly on a global scale as a result of demographic and economic forces. These changes are locally translated into changing consumer preferences and the modernization of food retail practices. Although traditional food outlets still dominate food markets in most SSA countries, there has been a steady increase in new forms of food retail in the region. This has sparked academic interest, especially with regard to modernization or *"supermarketization"* of food retail and the implications for small-hold farmers (Sheperd, 2005; Reardon et al., 2012). However, there is little known about the implications of the fast growing number of supermarkets in Africa on food access and food consumer behaviour of (poor) urban households (Crush and Frayne, 2011b).

While the modernization of food retail has an impact on food access of households, consumer behaviour and preferences, in turn, can have an influence on the food retail environment; the growth of formal food retail depends on whether consumers see them as viable alternatives or as an addition to traditional food retail. By the same token, many people in developing countries use traditional markets for most of their food supply, thus maintaining the importance of the informal food sector.

Therefore, we should not look at the informal food economy and consumption patterns of poor urban people as realms of underdevelopment that have to be transformed by all means. But to improve food access and consequently food security of urban households, a better understanding of these food markets is of importance; knowledge has to be the starting point of all development interventions. This is why this study's focus is on access and consumer 11ehaviour in the current food retail sector. Kampala city was selected as a study area as it has the highest number of emerging food retailers in Uganda. In addition, in 2002 40% of Uganda's total urban population was living in Kampala, with an expected increase in the coming decades (UBOS 2002). Thus the entrance of emerging food retailers into Kampala will have an impact on its residents' access to food.

This research aims to get insight into the food consumption patterns of urban households in the area of Namuwongo[1], Kampala, and determine their level of access to food (both physical and in terms of purchases) as well as the relative relevance of the different distribution channels. Through an analysis of the current set-up of the food retail sector and the use of the different distribution channels by urban consumers, this study explores how improvements can be made to ensure satisfactory food access of urban households in Kampala.

In addition, this research has been undertaken with the wider goal of contributing to the field of research on the modernization of food retail and urban food security in developing countries. Knowledge of consumer behaviour and the level of food access in the context of the current food retail environment can inform governments and NGOs when it comes to improving food access of urban households. To reach the aforementioned aims, a main research question has been formulated, which is as follows:

How does the emergence of modern food retail impact on the access of food for low-income and middle or high-income households in Namuwongo, Kampala?

The main research question is addressed by the following sub-questions:

1. What are the characteristics of different food distribution channels in Namuwongo?
2. How and where do consumers access food? And how does this differ between low-income and middle/high-income households?
3. How is the access and sourcing of food related to people's food security status?

After the introduction, the thesis is structured into 7 different chapters. The second chapter contains a review of relevant literature covering the concept of food security, characteristics of the food system and transitions in the food system. Thereafter, the regional thematic background of the research setting is covered. Special attention is paid to important themes of the study, namely the issue of food security,

[1] Chapter 3 discusses why Namuwongo was chosen as a research area.

and several policies targeting food security are outlined. Chapter 4 constitutes the conceptual framework and methodologies for the research study; the conceptual model is presented and explained, followed by the methods and methodologies applied in the research and justification for these, as well as the limitations of the research. Chapter 5 and 6 discuss the empirical findings of the study. Chapter 5 “the geography of food retail outlets” provides the characteristics of the food retail environment; it covers the locations, availability and relevance of the different food outlets, as well as a price comparison of the most commonly purchased food items. Chapter 6 covers the findings obtained through quantitative data from the household survey which are explained on the basis of qualitative data from focus groups. Finally, these findings are discussed within their wider context and implications and suggestions for further research are given.

2. Theoretical framework

This chapter gives a brief literature review and presents the theoretical underpinnings of the research. Firstly, the concept of food security, which is a widely studied concept that over time has been studied with many different interpretations and measurement tools, is presented. The most important shifts within the research field of food security are presented to finally narrow down to the definition of the concept as used in this thesis. Even though this research is mainly concerned with food access due to time constraints, it is important to understand food security as a concept in its complexity. Secondly, the concept of food security in an urban setting is reviewed. Thirdly, aspects of a food system that concern food access are considered. Lastly, two important transitions within the food system are covered. Based on the reviewed literature, a conceptual model is presented, which informs the approach of the study. This model is given in the methodology chapter.

2.1 Food (in)security

2.1.1 The concept

Food security is central to development and related to multiple aspects of development. Food security concerns have been present throughout history, and the concept of food security has been constructed in many ways, with the result that different elements of it have been emphasized by different institutions, individuals and organizations. Food security as a theoretical concept, which is used in the current development debate and as a guiding principle in development interventions, has evolved steadily over the last 50 years. Today, most scholars agree that the concept has evolved to be multidimensional and it is almost impossible to include all aspects of food security in one definition.

In the literature, three major shifts in food security as a concept are identified (Maxwell & Smith, 1996). The global food crisis of the early 1970s led to the first attempt to define food security. At the time the focus was primarily on the availability of food. The concept of food security was characterized by a national-level perspective. The focus was mainly on the supply side of food and the main concern was the question of whether a country has sufficient supplies to meet its population's dietary needs either through domestic or foreign markets (Pinstrup-Andersen, 2009). Although the focus on the supply side of food security is much contested in literature, it remains embedded within the dominant solution of growing more food to feed the global population. However, emphasis on production over-simplifies the issue and hides other challenges within the food system.

This first attempt to define food security was followed by shifts from the global/national perspective to the household/individual perspective, from a food-first perspective to a livelihood

perspective, and from objective indicators to subjective perception. Between 1975 and 1985, there was a shift in focus from the global or national perspective to the household and individual level. During the famines in the early '80s it became clear that hunger continued to exist even though there were adequate food supplies at the international and national levels (Maxwell & Smith, 1996). It was suggested that food insecurity was rather caused by a decline in purchasing power than a food shortage. This shift was mostly influenced by Amartya Sen's (1981) work that emphasized the importance of access to food by households and individuals, in which he suggested that personal entitlements such as labour, production and transfer- based resources have a strong influence on the food security of households. At this time, the availability of food was still important for the concept of food security. However, the ways in which households attain access to food gained importance in food security research (Maxwell & Smith, 1996).

The second shift came about during the 1980s when studies of the famines in the Horn of Africa revealed coping strategies of people; people often decided to go hungry for a period of time to preserve food for later. This showed that food was not a basic need anymore. The study of food consumption patterns of households in times of famine showed that a stable livelihood was a condition for food security in households (Dilley and Boudreau, 2001). This shift ensured that the inclusion of risk strategies and vulnerability of households and individuals were taken into account in food security research.

The third shift is shown in measurement approaches in food security research, with a move from objective indicators to subjective perceptions. This new perspective emphasizes the quality of food and people's perception of food security and anxiety about food availability. According to Maxwell & Smith (1996), optimal food intake is dependent on aspects such as age, health, and occupation. Therefore, personal factors as well as perceptions of adequate food need to be incorporated in Food security research. Moreover, the quality of food should be taken into account; taking in enough calories per day does not make a person food secure, and even though individuals may consume enough food, it does not necessarily mean that adequate quality food is consumed (Maxwell & Smith, 1996).

2.1.2 Four dimensions of food security

Given these three major changes in food security as a concept and considering the complexity of understanding and measuring of food security, a single perfect measure of food security does not exist. However, it is commonly agreed that attempts should be made to measure food security as a multidimensional experience. A widely accepted definition of food security in the literature is formulated at the world summit in Rome (1996):

> "Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 1996)".

From this definition four key dimensions of food security can be identified:

1. Availability of food
2. Access to food
3. Utilization of food
4. Stability of food over time

In addition, the concept requires an understanding of preferences and stresses the cultural and social acceptability of food.

Food availability, as stated before, addresses the supply side of food security and is determined by the level of food production, available stock and net trade (FAO, 2008). An adequate supply of food at the national or international level does not necessarily translate into food security on a household or individual level. Concerns about insufficient food *access* directed policy focus towards incomes, markets and prices in achieving food security objectives (FAO, 2008). Access to food is comprised of economic access on the one hand and physical access on the other, and reflects the "demand side" of food security (Stevens et al., 2003). Economic access to food is mostly determined by the purchasing power that emanates from disposable income, market food prices, and the access to social support (Barrett, 2010). Moreover, physical access entails availability and access to quality infrastructure such as roads, communication and food storage facilities as well as additional tools that are set up to facilitate the functioning of markets.

Utilization refers to the way the body makes the most of various nutrients in food (FAO, 2008). Adequate energy and nutrient intake of individuals is the result of proper feeding and care practices, food preparation, the diversity of one's diet, and intra-household distribution of food. Combined with adequate utilization, this determines the nutritional status of individuals (Weingärtner, 2010).

In addition, if your food intake is adequate today, you are still considered to be food insecure if you have inadequate access to food at other times, thus risking a deterioration in your nutritional status (FAO, 2008). Factors like: adverse weather conditions, political instability, or economic factors (such as, unemployment, rising food prices) may have an on your ability to have sufficient food access (FAO, 2008). Therefore, the *stability of food* over time should be considered (Schmidhuber and Tubiello, 2007).

2.1.3 Urban Food Security

Another important factor to consider in research on food security is the context of the study population. Therefore, a difference should be made in rural and urban food security. Food security has traditionally been seen as a 'rural problem' because cities were expected to have enough food available (Crush and Frayne, 2010). In addition, food insecurity in urban areas is often an invisible problem, compared with more visible issues like overcrowding and lack of services (Crush and Frayne, 2011a; Maxwell, 1999). Therefore, urban food security has not been given the attention that is needed. Today, it is argued that urban food security is becoming a greater developmental concern due to the high urbanization rates in developing countries.

Literature shows that urban food security differs from rural food security with respect to unemployment, inadequate access to health care, high cost of living, high level of persistent health hazards, high level of monetization of exchanges and other factors (Bonnard, 2000). In addition, in urban settings, food insecurity is not a result of a lack of food but rather of an inability to afford food and other basic needs (Levron, 2010).

Thus, even though food may be available in urban settings, it is not accessible for all urban dwellers. Therefore, food security is best understood as a problem of access rather than availability (Crush and Frayne, 2010). Accessibility depends mostly on the individual or household's ability to purchase food, which in turn depends on household income, the price of food and the location of food outlets. Food may be economically accessible (households can afford it) but spatially inaccessible (food distribution channels are located too far away or difficult to get to). Conversely, it may be spatially accessible (with supermarkets springing up everywhere), but economically inaccessible (the food in the supermarket is unaffordable) (Crush & Frayne, 2011b).

Taking literature on food security and time constraints into consideration, this study approaches food security mainly as the access to food on a household level; this entails both physical and economic access. Moreover, the availability of food is incorporated, not on a production level but in terms of availability in the different distribution channels that are directly available to the study population. Lastly, a measurement scale is adopted in the research that addresses personal factors, perceptions of adequate food and personal agency in food security[2].

[2] This measurement tool is the HFIAS-scale and is explained in the methodology chapter

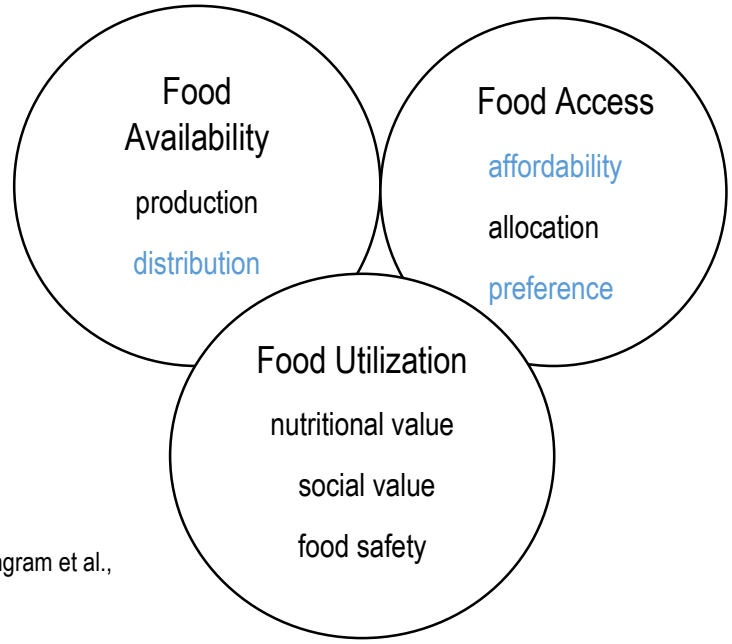
2.2 The food system[3]

Household food security and household consumer behaviour are part of a wider food system. According to Goodman (1997): "*Food systems represent all processes involved in feeding a population, and include the input required and output generated at each step. A food system operates within, and is influenced by, the social, political, economic and environmental context*".

Food systems overlap with agricultural systems when it comes to food production, but also constitute a variety of technologies, institutions, and practices that influence the way food is processed, transported, marketed, accessed and consumed (Goodman, 1997; Capone et al., 2014). Institutions within a food system may be formal, but in the more traditional food systems are often (partly) informal. Therefore, informal interactions between food system actors are important for understanding the functionality of the food system. These are discussed in a following section.

Moreover, the food system influences three food security outcomes. Food availability is comprised of production, distribution and exchange; food access comprises affordability, allocation and preference; whilst food utilization constitutes of nutritional value, social value and food safety (Capone et al., 2014; FAO 2012) For the purposes of this study, the contribution of the food systems approach is its emphasis on food system activities, highlighted in blue in the figure below:

Figure 1: Food system activies that influence food secuirty outcomes



Source: adapted from Ingram et al., 2005

[3]This thesis only considers the consumers and retail outlets as part of the wider food system, which could be denoted as the food retail environment; therefore, the term food system is used interchangeably with food retail environment in the remainder of the thesis.

Even though the study primarily focuses on food access, not all elements of the food system containing food access are covered. As this research looks at food access on a household level, the allocation of food on an intra-household level is not considered. The distribution and affordability of food are discussed in the following section. Thereafter, informal institutions that shape food systems are reviewed. Lastly, consumer preferences are covered in the section 'transitions in the food system'.

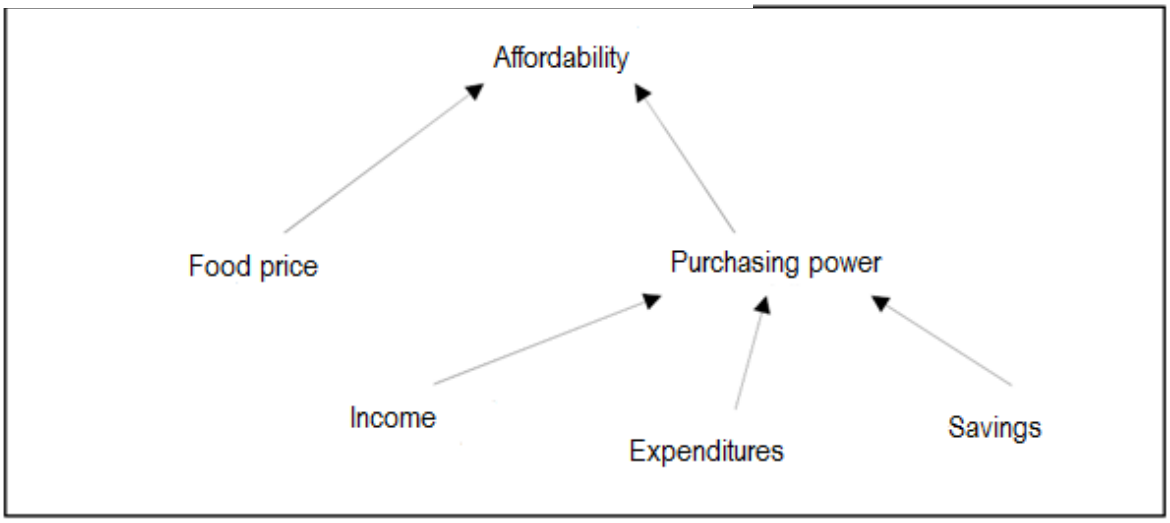
2.2.1 Food chains, affordability and distribution of food

A food system is holistic, encompassing a set of interacting processes, whereas a food chain is a linear sequence of activities that need to take place in order for people to obtain food (Capone et al., 2014). Thus, a food system consists of multiple food chains operating at global, national and local levels. A household may participate in several food chains. For example, when a household buys matooke, which is locally grown, it participates in a different food chain than when a household buys imported food products.

A household's food system consists of all the food chains it participates in to meet its consumption requirements and preferences. All households need sources of income that give them sufficient purchasing power to buy the food they need that they cannot or do not produce or receive as transfers from public assistance programs or other households/ family members.

With the urban populations' dependence on purchases for food, food affordability is an important determinant of the urban household's access to food. Figure 2 below illustrates that the affordability of food consists of food prices (including transport costs to a food source) and a household's purchasing power:

Figure 2: construction of the affordability of food



Source: adapted from White et al., (2011)

Thus, the ability to afford food is more complex than just the cost of food. It is as much a sociological as economic concept and is influenced by home production, information, prices, income, food transfers, and consumption. Moreover, affordability includes elements of food availability, since the price of food is influenced by changes in production and distribution (White et al., 2011).

The purchasing power of households depends on earnings, savings and the outflow of resources on other household expenditures. When financial pressure exists, especially in poorer households, this may lead to reduced spending on food, as food spending is more elastic than other essentials like rent. This may include reducing the amount of food purchased, changing types of food, or buying the same type of food but of a lower quality (Coates et al., 2007)

Food prices depend on a number of factors, most importantly the efficiency of the food marketing and distribution system. Urban food distribution systems are highly diverse but not especially well integrated, leading to higher prices (Crush & Frayne, 2010). As the demand for food rises in urban areas, food supply and distribution systems (FSDSs) have to supply urban dwellers with increasing amounts of food often coming from distant production centres. A whole series of interventions add to the price at each stage of the supply chain, such as processing, packaging and transport (Sabiiti et al., 2014).

Most of the staple food consumed in Kampala is bought in from rural areas. Thus the cost of fuel for transport is one of the major factors that influences food prices in the city. In addition, some of the rise in food prices is likely due to the global increase in food prices. According to the UBOS (in Katongele et al., 2007), food prices increased most dramatically over the period of 2007 – 2011 in comparison to other basic services (Sabiiti et al, 2014)[4].

2.2.2 Informal institutions in the food system

The food systems in which most households in SSA countries participate are still dominated by traditional food distribution channels, which are characterized by informal structures (Weatherspoon & Reardon, 2003). Whereas formal markets are defined by formal structures like financial rules, laws and regulation, informal markets are held together by informal structures like networks, preferences, opinions and social norms (Scott, 2004). North (1990) gives these structures the name “institutions”, which refer to all: “humanly devised constraints that structure social and economic life.” Institutions, formal or informal, are regularized practices structured by rules and norms of the society and have persistent and widespread use (Giddens, 1979). Understanding these institutional processes allows the identification of restrictions and opportunities for households’ food access.

[4] See figure in chapter 3, contextual framework.

Different cultural settings are characterized by different degrees of formal or informal institutions. For example, 'Western' countries are more structured by formal institutions with a high degree of rules and regulations; while social ties and solidarity are much more important in most developing countries. Within traditional food markets in Sub-Saharan Africa, the basis of contractual agreements, as well as risk mitigation between buyers and sellers, lies in informal mechanisms and social capital including personal ties, social networks and reputation (Fafchamps et al., 2008).In traditional (food-)markets, social capital is essential in the provision of trust, sanctions and enforcement through the creation of mutual obligations.

Pierre Bourdieu (1980) defined social capital as the resources that a person or group attains through their network of relationships. These can be resources like assistance from family or friends. With regard to food access, social capital may be important in direct access, such as through food transfers from family or friends, or access through social ties with retailers by who allow buying on credit.

North (1990) also stresses the need to understand informal institutions in a society. He states that we cannot effectively communicate and engage in varieties of social, political, and economic exchanges until we learn and understand these informal institutions. This is true for development research in general; it is important to understand your study area in your specific context. In addition, for this research in particular, informal institutions are important to understand people's consumer behaviour: their preferences and choices but also their social ties.

2.3 Transitions in the food system

Even though the food systems of many SSA countries are mostly characterized by informal structures, in an urbanizing setting important changes are taking place. It has been argued that urbanization (demographic and economic changes) significantly change both what is consumed and how certain foods are accessed (Reardon and Berdegué, 2002). These changes are commonly referred to as *"supermarketization"* and the nutrition transition.

This study mainly focuses on how food is accessed. Therefore, *supermarketization* in the food retail environment and important trends following from this transition are discussed in the following section. Although what is consumed is not the main focus of the study, it is still important in the analysis of the food retail environment and is discussed thereafter.

2.3.1 Supermarketization

In the literature on this *supermarketization* in developing countries, fours 'waves' are identified. The first wave of supermarket emergence hit the bigger cities in the larger or richer countries of Latin America.

The second wave hit East/Southeast Asia and Central Europe, and the third in small and poorer countries of Latin America and Asia and southern, then eastern Africa. By this time, smaller cities and towns in the areas of the "first wave" were being hit. Recently, the fourth wave, has hit southern Asia and western Africa (Reardon and Berdegué, 2002)

Several authors have studied the impact of supermarkets on agriculture (such as Neven, D. & Reardon, 2004; Sheperd, 2005). These studies focus primarily on the impact of supermarkets on poor or small-scale farmers. Few studies have focused on the expansion of supermarkets in relation to consumers (D'Haese and Van Huylenbroeck, 2005). Some of these studies examine the impact on retail prices, which reveal that impacts on prices are situ-specific. Some scholars such as Crush, J., & Frayne, B. (2011b) argue that within the chain structure of modern distribution networks, prices at the end of the chain are reduced due to economies of scale of supermarkets, while the value for small-scale producers in particular is drastically reduced.

Other scholars like Reardon and Berdegué (2002) show that this observation is incomplete. They describe a two-stage development pattern. First, supermarkets attract the higher income consumers in large cities. At this stage, supermarkets only account for a small market share and their prices are higher than on traditional markets. Second, supermarkets start attracting the middle and poorer classes. When the management and logistics improve and economies of scale can be achieved, retail prices go down. Therefore, it is argued that poorer consumers are not directly affected by the development of supermarkets until they start expanding and reach a consolidation phase. Weatherspoon & Reardon (2003) also describe a two-stage pattern concerning the type of products sold by supermarkets. Initially, supermarkets sell dried, packed and processed food. Only at a later stage is fresh food available.

The driving forces of this rapid growth and demand in supermarket services include urbanization, with the consequent entry of women into the workforce outside the home, which has increased the incentive and opportunity to seek shopping convenience and processed foods to save time on cooking (Sheperd, 2005; Neven & Reardon, 2004). In addition to urbanization, foreign direct investment (FDI) following market saturation in home countries, and liberalization of the agricultural and retail sectors, are the most important drivers of growth for supermarkets.

The rise of supermarkets or the modernization of food retail is also visible in Uganda, though this has only started in recent years. It was in 2000 that the first foreign supermarket, Shoprite, opened one store in central Kampala. By the end of 2011, the total number of regional supermarket branches had risen to 17, with the 3 Kenyan retailers behind much of this growth. This expansion is taking place through new investments, particularly in large, modern shopping malls, and through the acquisition of Ugandan supermarkets (Evers et al., 2014). In addition, all the supermarkets are expanding beyond the

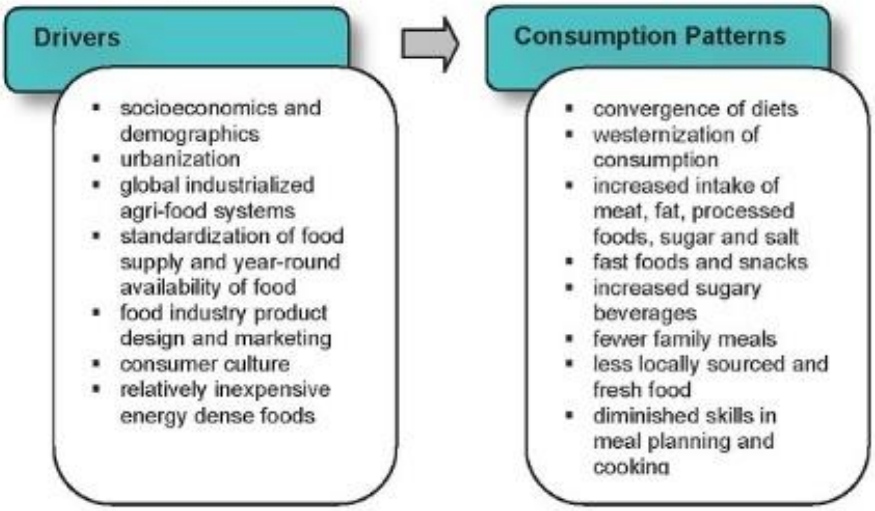
urban centre to the outskirts of Kampala. However, Uchumi is the only one to have ventured out of the capital area. It has established a supermarket in Gulu, Northern Uganda (Evers et al., 2014).

2.3.2 Nutrition transition

Urbanization and demographic changes have not only influenced the food access possibilities of household, but have also fuelled changes in lifestyles and food consumption preferences. While *supermarketization* is argued by some to reflect positive change, enabling household access to safe foods, it also increases the access to and consumption of highly processed foods, sugary drinks and wheat products, resulting in the increased consumption of sugar and unhealthy fat (Stuckler et al., 2012; Kearny, 2010). Such changes in diet have implications for nutrition and health and are often referred to as the nutrition transition (Popkin, 2001; Rayner et al., 2007).

However, the nutrition transition is not just a result of supermarketization, as research has shown the widespread availability of processed and unhealthy foods in both modern and traditional retail in developing countries (Weatherspoon & Reardon, 2003). Thus it is the result of economic, demographic, and related forces (Popkin, 2001). Consequently, consumption patterns consistent with nutrition transition appear first in the higher income urban populations. The drivers and changes in diets within the nutrition transition are presented in the figure 3:

Figure 3: drivers and consumption pattern outcomes



Source: adapted and modified from Kearny (2010)

Thus, diets evolve over time, being influenced by many factors and complex interactions. Generally, food consumption patterns change towards more food-away-from-home, more food with greater convenience attributes, and greater consumer concerns for safety, health and nutrition (Kearny, 2010). The demand for time-saving and convenient food has increased the intake of processed and ready prepared foods. These foods are often street foods that are usually high in fats and carbohydrates. Street foods are found to cost less on a per-nutrient basis (Maxwell et al., 2000). Even if more expensive per unit than raw foods, purchase of prepared street foods can free up time for the worker to engage in income-generating activities that have a greater benefit to the household than food preparation, especially in cases where traditional foods require long preparation times (Atkinson, 1995). However, street foods are often fried and prepared with or containing saturated fats, which has consequences for nutrition and health (Stuckler & Nestle., 2012).

That street foods contribute significantly to nutrition transition, and that this transition does not only affect the affluent, is confirmed by a study conducted in Nairobi. This study found that poorer families tend to spend more on street foods than other households (Maxwell et al., 2000). Maxwell et al., (2000) found higher street food expenditures among the poorest groups. Households in the poorest expenditure quintile spent an average of 39 percent of their total food budget on foods purchased outside the home, compared to 26 percent of the top quintile. Similarly, Tinker (1997) found that the poorer small families of Burundi spend up to 58 percent of their food expenditures on street foods, compared to 36 percent of families with eight members or more (Tinker, 1997). In Uganda, urban households spend up to 25 percent of their food budgets on street foods, a proportion that is uniform across income groups (UBOS, 2012).

Even though this study does not consider street food and nutrition per se, as it focuses primarily on home-prepared food and access to such foods, it is important to note that street food can make up a significant part of people's diets, and thus contributes to the food security and nutrition status of people.

3. Contextual framework

The following chapter briefly reviews the national and local context, covering socio-demographic and geographic facts on Uganda. Moreover, It provides insights into food security at a national and local level (Kampala).

3.1 The Republic of Uganda

The Republic of Uganda is a land locked country located in East Africa in between Kenya, the Democratic Republic of Congo, South Sudan, Rwanda and Tanzania. Uganda had a total population of 38,84 million in 2011 (FAO, 2014) of which 24,8% lives in urban areas (Unicef, 2012) and has an estimated average annual growth rate in urban population of 5.5% between 2012 and 2030 (United Nations Population Division in Unicef, 2013).

The key sectors of the Ugandan economy are agriculture, forestry and fishing; industry and services (Ministry of Finance, Planning and Economic Development, 2013). Although Uganda is on its way in reaching the Millennium Development Goals (it has almost halved poverty since the 1990s) rising inequality has severely slowed down poverty reduction (UNDP, 2013). Uganda is ranked 161st in the list of 186 countries with a human development index of 0,456, classifying Uganda as a country with low human development (UNDP, 2013).

One of the main challenges that Uganda faces is food (in)security. According to the World food Program (2006) about 45% of the population in Uganda is potentially food insecure. Moreover statistics show that high levels of childhood under nutrition exist (UBOS, 2007). According to the 2006 Uganda Demographic and Health Survey (UDHS) statistics published, almost 40% of children were stunted, about 15% were severely stunted, 6% wasted and 16% were underweight with under nutrition being responsible for about 40% of deaths among children bellow five years. About 12% of the women were also undernourished (UBOS, 2007). In addition, table 1 (FAO, 2014) also shows that the prevalence of total under nutrition has risen from 27% in 1999 – 2001 to 35% in 2010-2012.

Table 1: Prevalence of undernutrition in Uganda

Uganda: Prevalence of undernutrition				
	Prevalence %			
	1999-01	**2004-06**	**2007-09**	**2010-12**
Undernutrition	27	28	31	35

Paradoxically, Uganda does not seem to lack food: the country produces a variety of food crops for consumption: cereals, roots, fruits and pulses; animal products and fresh water fish are also widely available.

In addition, table 2 shows an increase of per capita production. However, food production does not necessarily mean food availability, food can also be (partly) exported. In Uganda, direct food availability at the retail level has always been much lower than food production figures, which leads to high food prices. One can therefore say that scarcity of food on a national level is not the main issue but the challenge could be access to and utilization of the existing food.

Table 2: Per capita food supply 1996-2011

Uganda: Per capita food supply				
	Quantity kcal/capita/day			
	1996	**2001**	**2006**	**2011**
Food Supply	2130	2280	2297	2279

Source: adapted from FAO (2014)

The problem of food insecurity for people in Uganda, thus also seems to be associated with poverty and a lack of financial resources (Sseguya, 2009). Moreover, fluctuations in world food production and markets, and increase in food prices due to the impact of high energy prices on international markets and domestic transport costs decrease the affordability of food (World Bank, 2008). In addition, recent conflicts in neighboring countries Kenya and South Sudan have made access of food more difficult as prices increased due to high demand in these post-conflict areas (Sseguya, 2009).

3.2 Policies and food security efforts

To try and achieve food security, several efforts have been launched over the years. According to Semana (2002), prior to Uganda's independence in 1962, the focus of policies have solely been on agricultural production. Since then, the focus of policies have shifted somewhat to include more actors but agricultural production remained the focal point.

A notable development for food security efforts was the introduction of structural adjustment measures (1987) such as privatization of government, liberalization of markets, and decentralization of government services including agricultural extension. During this period, the Ugandan government also developed its Poverty Eradication Action Plan (PEAP) and Plan for Modernization of Agriculture (PMA), which provided a new way of integrating efforts by the different stakeholders involved in agricultural development (Bahiigwa et al., 2005).

The PMA puts emphasis on subsistence farmers; it's strategies are aimed at increasing household incomes through increased shares of marketed production. This should be possible by promoting productivity-enhancing technologies, along with improved extension service delivery. This was supposed to increase incomes of subsistence farmers and to improve household food security through the market rather than emphasizing self-sufficiency (Bahiigwa et al., 2005).

Later, the PMA was replaced by a new policy: the Agricultural Sector Development Strategy and Investment Plan (DSIP) Like its predecessor, DSIP's focal point is agricultural reform to promote the livelihoods of rural people. In DSIP, the emphasis moves to (economic) growth by improving productivity and helping farmers become strong actors in the value chain. This was seen as the way to achieve food and income security. The emphasis the Government of Uganda pays to the growth, wealth creation and transformation to a modern rural economy skews the type of agricultural services offered towards a more commercial and market oriented end.

More recently, several policies that focus on food security and nutrition have been implemented. These policies were designed to also include the urban populations but still view food insecurity as an availability issue. The Uganda National Food and Nutrition Policy (UNFNP), which was approved in 2003, targets improvements in food security, nutrition and incomes for "all Ugandans". The Health Sector Strategic Plan (HSSP) II of 2005-2010 aims to reduce child hunger and emphasizes micronutrient supplementations. Another policy targeting food security is the Uganda Food and Nutrition Strategy and Investment Plan (UFNSIP), which was enacted in 2005 (Sseguya, 2009). The Uganda National Development Plan (NDP) of 2010 also provides for interventions to improve overall nutrition for Ugandans (FAO, 2010). A recent development is the passing of the 5-year Uganda Nutrition Action Plan (UNAP) for 2011-2016.

3.3 Kampala

The study is conducted in two residential areas of Namuwongo in Uganda's capital, Kampala. Kampala is the largest commercial and industrial center in Uganda and is the hub of Uganda's economic, political and social transformation, where most organizations—governmental, non-governmental and international—have their main office. Kampala alone makes up a quarter of Uganda's economy (Dorosh and Thurlow, 2009 in Sabiiti et al., 2014). The city has some small industries, such as metal fabrication, pottery and carpentry, and large-scale processing and manufacturing industries.

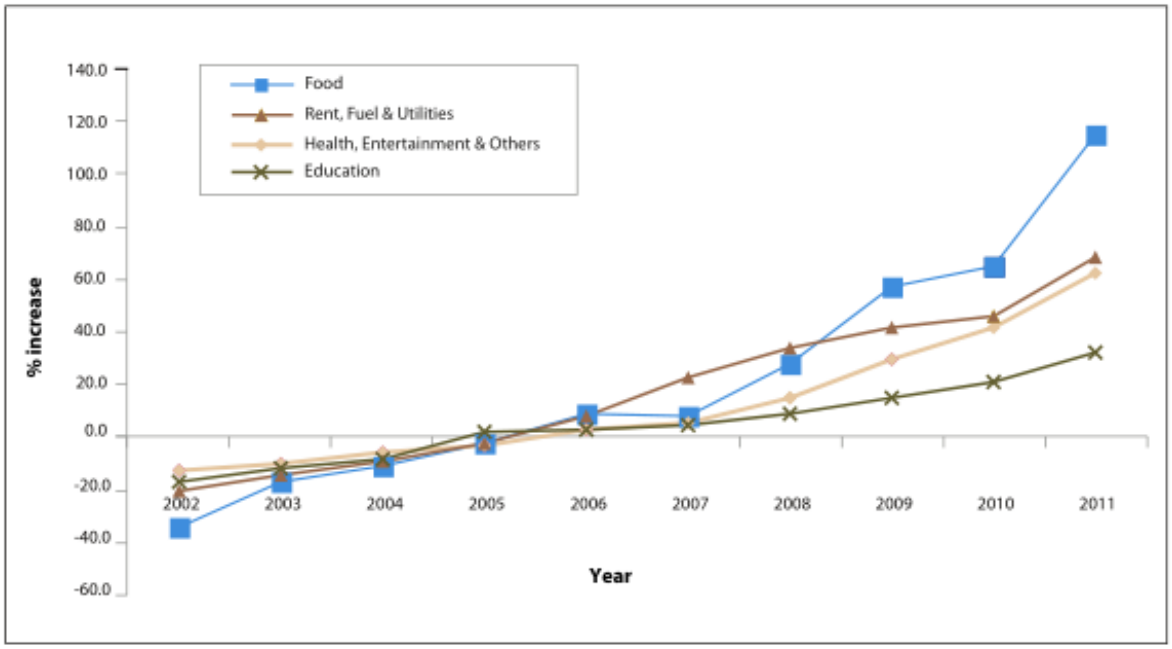
Administratively, Kampala is divided into five divisions—Central, Kawempe, Makindye, Nakawa and Rubaga—each headed by a mayor (Sabiiti et al., 2014). According to the Structure of Local Government System in Uganda, the lowest administrative unit is the village, cell or zone (Local Council I), several of which make a parish (Local Council II), and several parishes are assembled into sub-

county councils, town councils or municipal division councils (Local Council III). (Katongele et al., 2011)The Kampala Capital City Authority (KCCA) is the governing body of the capital on behalf of the central government and subject to the KCCA Act 2010.

Mid 2012 an estimate of 1,72 million people were living in Kampala (UBOS, 2012) Not only has the population of Kampala grown considerably, there has also been physical expansion from 8 km² (7 hills) in 1962 to 195 km² (25 hills) in 2006 (Nyakaana et al, 2007). The rapidly increasing population has had its effect on accommodation in Kampala leading to a shortage of houses It has been reported that Kampala has been experiencing rapid unplanned housing construction and a rapid formulation of slum since 1990 (Nyakaana et al., 2007). This increase in population is mainly due to high fertility, natural increase, decline in mortality, internal and international migrations (Omara, 2007). The rapid growth of Kampala has also had an impact on food security and nutrition situation of urban dwellers. Statistics from UBOS show that the prevalence of food insecurity was higher in urban areas (UBOS, 2010). Moreover, available statistics show that slum dwellers in Kampala City fall in the lowest income quintiles (UBOS, 2007). These people may therefore lack resources to ensure an adequate diet.

Similar to Uganda as a whole, Kampala struggles with a rise of prices of basic services which put a strain on poor urban households (Sabiiti et al., 2014). This is especially true for the provision of food for these households. Most of the staple foods consumed in Kampala are brought in from rural areas, whereby the cost of fuel for transport is one of the major factors that directly and indirectly influences food prices in Kampala. The increase in food prices in Kampala, however, can be attributed to factors beyond the cost of moving food from rural to urban areas. According to the UBOS (2010), food prices underwent the sharpest increase compared to all the other basic needs in Kampala over the period of 2007–2011 (Figure 4); some of the rise in food prices is likely due to a rise in global food prices (Sabiiti et al., 2014).

Figure 4: Price increases of basic goods over a 10 year period.



Source: adapted from the UBOS (2010) in: Katongole et al., 2007.

The growth of modern food retail is linked to market liberalization and regulatory changes introduced through economic structural adjustment programs (SAPs) in 1987. During this liberalization of the food retail sector mid-sized supermarkets were becoming established in Kampala. These early supermarkets were mostly located in upper-class neighborhoods, such as Muyenga and Kololo, and served only expatriates and upper-class households (Elepu, 2006). Furthermore, since the 1990s, urbanization, the related entrance of women into the paid workforce and income growth in urban areas have also become more important drivers in the expansion of these supermarkets into the urban middle- and working-class food markets (Weatherspoon & Reardon, 2003)

3.4 Namuwongo

The study is conducted in Namuwongo, a residential area in Kampala. Namuwongo is located in Makindye Division, one of the five administrative divisions of Kampala. It is bordered by Lugogo to the north, Nakawa to the northeast, Kiswa and Bugoloobi to the east, Muyenga to the southeast, Kisugu and Kabalagala to the south, Kibuli to the west and Kololo to the northwest. The neighborhood is located approximately 6 kilometers (3.7 mi), by road, southeast of the central business district of the city The two study areas Soweto (slum) and Muyenga (organized residential area), are shown in map 1. For this research, focus was placed on a relatively small area due to time limitations and to be able to pay attention to specific characteristics of the food retail environment of Kampala. A lecturer at Makerere University was consulted on the selection of a research area. Namuwongo was chosen due to the nature of this study: a comparison of consumers of varying socio-economic status. The study area,

Namuwongo, has two neighbourhoods with visually distinct levels of household income: Soweto, a slum area, and on the other side of Namuwongo road, a part called Muyenga or Kisugu by residents, but for the purpose of this study will be called Muyenga, which is a mixed neighbourhood with mainly middle- to upper income households.

Map 1: Namuwongo and surrounding areas

Source: Map data 2014 Google

North of Namuwongo road a slum area known as "Soweto" is situated. It is divided into seven zones namely: 1. Industrial Area View 2. Go-Down 3. Kasanvu 4. Namuwongo B 5. Namuwongo A 6. Kanyogoga/Masengere 7. Yoweri Kaguta. The boundaries of these zones are unclear. The study area constitutes several of these zones and are called Soweto hereafter.

Houses in Soweto are mainly build from mud and clay with makeshift roofs (photo 1), while some houses are constructed from a mixture of cement and sand. The settlement sits on a swamp whose high water table does not permit the digging of deep latrines. Moreover, most residents cannot afford to build their own toilets, so they are forced to use public pay latrines or dispose of their waste in other ways including disposal directly into the drainage system or “flying toilets” (plastic bags filled with feces and thrown away). This leads to contamination of food and water, particularly in the rainy season where flooding leads to further contamination (Sims et al., 2011). Moreover, residents face many other challenges: Including exclusion from education and healthy living; exposure to extreme poverty, hunger and disease.

Photo 1: Typical housing in Soweto slum

Photo 2 : Train track separating the slum from the rest of Namuwongo

Muyenga lies on the other side of Namuwongo road, and is the area of study that is compared to Soweto in the analysis of this study. Muyenga was an upscale residential area. After the removal of the Obote II regime in 1986, a period of rapid, unplanned and uncoordinated development of the real estate on Muyenga followed. As a result, it is an mixed area with upscale and middle-class houses. It lacks articular areas like Muyenga, running out of patience with the local authorities, and providing their own road infrastructure

Photo 3: Street in Muyenga with middle-income houses

Photo 4: High income housing in Muyenga

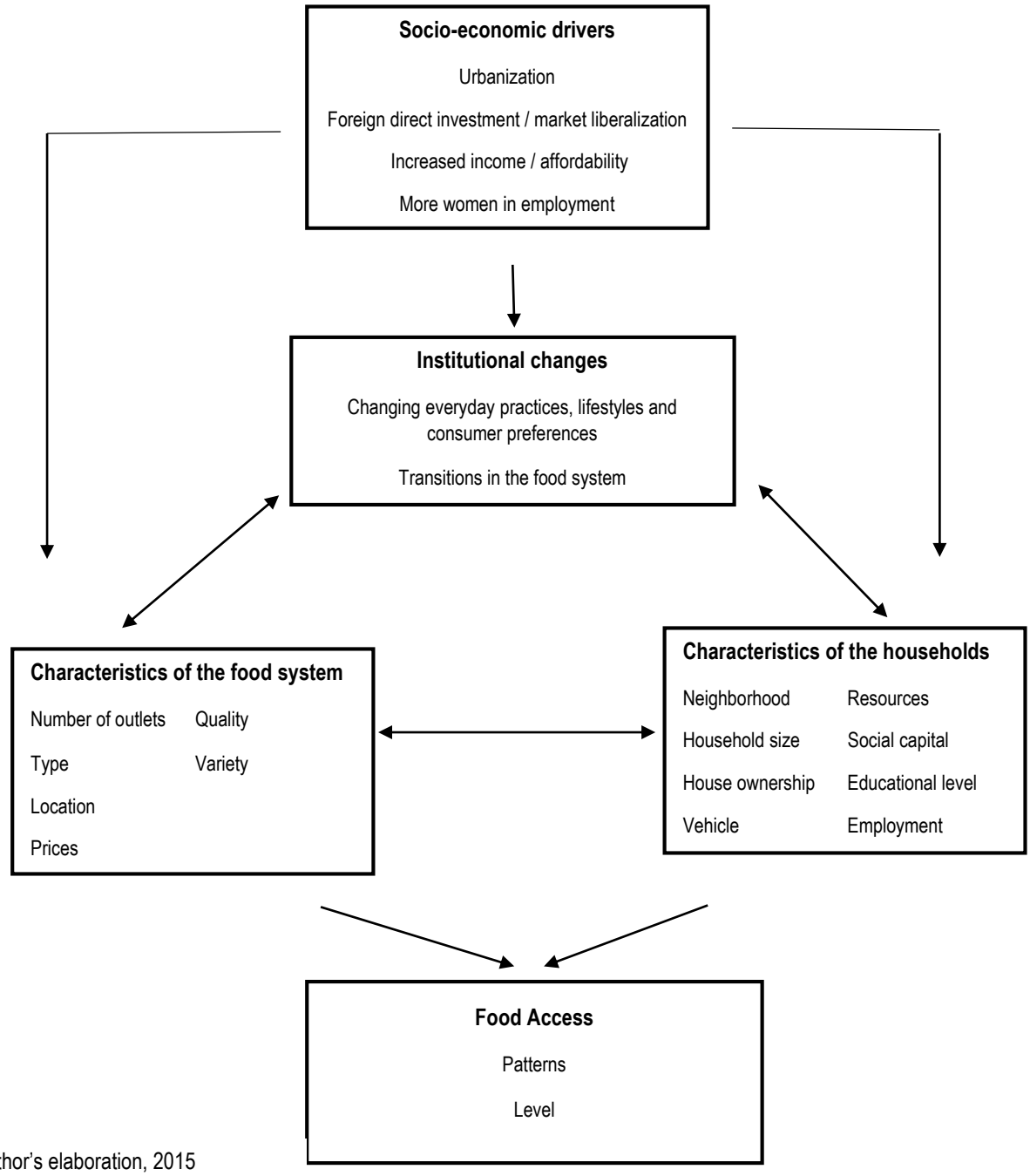
4. Conceptual framework and Methodologies

In this section the conceptual framework for the research study is presented and explained, followed by the research methods used during the study.

4.1 Conceptual Framework

The organization of the research study is informed by the theoretical background, which establishes essential factors and variables and the presumed relationships among them. The scope of this study is visualized through the following conceptual framework:

Figure 5: Conceptual model of food access



Source: Author's elaboration, 2015

The conceptual framework shows how the relationship between household characteristics and characteristics of the food system that these households participate in determines levels of food access. The socio-economic drivers described in the theoretical framework help shape both food systems and household characteristics. Moreover, changes in institutions influenced by these socio-economic drivers influence the characteristics of both the potential consumers and the food system.

The availability of outlets and their utilization by consumers are an outcome of characteristics of the food system and the household composition. This may translate into access or a lack of access, depending certain characteristics of the household and the food retail environment

For instance, lack of household refrigeration may necessitate frequent trips for perishable food items, which makes location and outlet type important. Another example is a household's resource of social capital as a facilitator, which may give direct access to food through food transfers from family or neighbours.

4.2 Research phases

The conceptual model shows the importance of characteristics of the households and of the food system that contribute to food access. To explore the relationships between characteristics of the households and the food retail sector three questions were formulated:

1. What are the characteristics of different food distribution channels in Namuwongo?
2. How and where do consumers access food? And how does this differ between low-income and middle/high-income households?
3. How is the access and sourcing of food related to people's food security status?

On the basis of these three questions the various methods of study were chosen. These were carried out in three consecutive research phases. The activities that took place in these three phases are discussed in this section.

4.2.1 Phase 1

The first phase of the research mainly involved desk research done primarily while still in the Netherlands and partly while staying in Uganda (December 2014 - March 2015). The desk research findings are given by means of a literature review in chapter 2 as well as a contextual overview that was presented in the previous chapter. Desk research consisted of analysing secondary data to review the literature on food access and the modernization of food retail in developing countries and more specifically in Uganda. Furthermore, during this first phase observations were made in Uganda, the study area was chosen and the available food outlets in this area were observed.

This was done in preparation of the household survey and to contribute to answering the first sub-question:

What are the characteristics of the food distribution channels in Namuwongo?

These channels were studied through direct observations of the structure, set-up and consumers that they attract, as well as of what types of foods were commonly sold. In both neighbourhoods, the outlets were counted and documented. Due to the informal character of some food outlets, no data was found on their locations. Instead, to cover all outlets as well as possible, all streets in both neighbourhoods were covered on foot. This was a challenge in Soweto particularly, because of little structure of housing and streets. Therefore, a guide who was a resident in Soweto showed us around the neighborhood. In addition, logistical and administrative work was also done: finding research assistants; training the research assistants; and designing household survey questionnaires.

4.2.2 Phase 2

The second phase of research was dedicated to carrying out surveys, which were used to (partly) answer sub-questions 2 and 3, namely:

2. How and where do consumers access food? And how does this differ between low-income and middle-income households?

3. How is the access and sourcing of food related to people's food security status?

To ensure that the survey was suitable in the context of the specific study area, a pilot study was done with 10 respondents. Following this pilot study, a few minor details of the questionnaire were altered and the surveys were printed. Thereafter, the survey was conducted in the two different areas in Namuwongo: Soweto (slum area) and Muyenga (mixed neighborhood with mainly middle- to upper income households).

First, the Soweto area was covered, with survey questions asked face-to-face. Due to language barriers the interviews were held in Luganda and the questionnaires were filled in by one of the research assistants. With a basic knowledge of Luganda, the researcher tried to be involved where possible. The surveys were conducted on weekdays between the 28th February and 25th March 2015. Due to time constraints and a lack of census data of the area a systematic sampling approach was adopted. The households included in the research were every 4th house seen while walking through the study. In systematic sampling every household in the population has an equal probability of being selected. This makes systematic sampling an appropriate method for this study; especially in Soweto in which the population is more homogenous than in Muyenga.

Due to a lack of structure in streets and housing it was not always clear what household to

include. Had there been no-one at home, this would have been noted and the particular household would have been visited one more time on another day. However, in the Soweto area this was not applicable as there was always someone home.

Secondly, the Muyenga area was researched by the same approach. This proved to be a bit more difficult; there were some households where people were not at home, and a few households had to be visited during the weekend. Subsequently, data was entered into SPSS 20. Thereafter, the data was analysed and the most important findings were reported.

4.2.3 Phase 3

After the analysis of the data in SPSS an interim report was created which informed the research methods of phase 3. This phase went into more depth than the data collected in phases 1 and 2. Firstly, a short questionnaire to obtain more information on the different distribution channels was compiled in the form of a semi-structured vendor interview questionnaire. This questionnaire was conducted as a face-to-face interview with vendors/store owners of the different distribution channels that are available to the households that participated in the household survey. The respondents were selected according to the convenience sampling method by visiting the different distribution channels and asking the owner for an interview.

Secondly, four focus groups (two in Soweto and two in Muyenga) were held amongst participants of the household survey who mentioned that they were willing to elaborate on their answers in the form of an interview. Focus group discussions were selected as a method for this study to elaborate on the findings of the survey. An advantage of a focus group is that it expands the number of views and opinions available to the researcher. Group interaction helps researchers understand the reasoning behind views and opinions expressed. However, unlike some focus groups, group dynamics was not the main motivation for the discussion. Rather, the purpose was to seek an explanation for the survey results and to explore issues that show differences within the focus groups.

In addition, semi-structured interviews with three key informants — two market managers and a Local Council I & II leader— were conducted.[5] These interviews serve as supplemental data, offering alternative views and opinions on the food retail environment. The advantage of semi-structured interviews is that they ensure that specific areas are covered while still providing the respondents with

[5] In Uganda each village or in the case of Kampala each zone is run by a local council – local council I (LCI). The parish is the next level up from a zone. A parish is made up of a number of zones. For example, in Kisugu parish (area of study) – there are several zones, which together are called Muyenga and Soweto in this study. Kisugu parish, in turn, is one of the three parishes that make up Namuwongo. Each parish is represented by a local council II.

opportunities to share their thoughts and ideas. Table 3 below summarizes these different research stages:

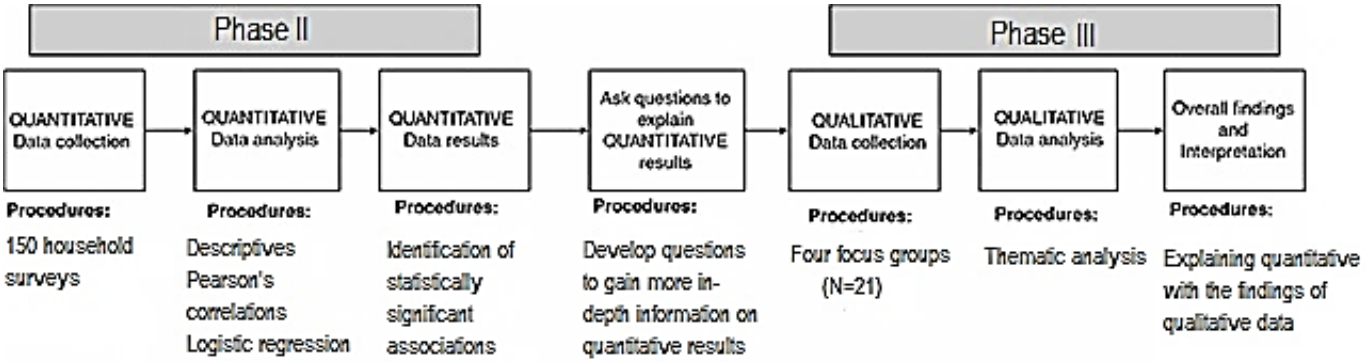
Table 3: Research question, Unit of analysis, Sample and Methods.

Research question	Unit of analysis	Sample	Method
What are the characteristics of the current retail environment in Namuwongo, Kampala?	Supermarkets Stalls/shops Traditional markets Key informants	1 regional chain supermarket 2 local supermarkets 30 shops 15 stalls 3 traditional markets 2 market managers 1 local council leader	Vendor interviews Food assessments Direct observation Semi-structured interviews
How and where do consumers access food? And how does this differ between low-income and middle-income households?	Households	150 households 21 focus group discussion participants 3 traditional markets 2 market managers 1 local council leader	Household survey Focus group discussions Semi-structured interviews
How is the access and sourcing of food related to people's food security status?	Households	150 households 21 focus group discussion participants 3 traditional markets 2 market managers 1 local council leader	HFIAS-scale included in the household survey Focus group discussions Semi-structured interviews

4.3 Mixed Methods design

This study mainly builds on quantitative data obtained through the household survey in research phase II and is interpreted on the basis of FGDs in research phase III (see Figure 6 below). This use of data is also called a sequential explanatory mixed methods design (Ivankova et al., 2006). The mix of quantitative and qualitative research methods creates a holistic, in-depth understanding of food access in the food retail environment, facilitating comparisons between households of varying incomes.

Figure 6: Visual overview of the sequential use of methods used in research phases II & III



Source: adapted and modified from *Gaudin et al., 2014.*

4.4 Tools and analysis

As stated before, the research adopted several tools to investigate the food access of households and the relationship between the food environment and the households. Firstly the two tools that are the base of this study are discussed: The household survey and the Focus group discussions. These are followed by an explanation of the vendors interviews; and lastly, the food assessment that took place in several outlets is reviewed.

4.4.1 Household survey

The survey was divided into three main parts: (1) Questions on the characteristics of the households and their food consumption; (2) A part on consumer behavior and food purchase decisions of the households (which also included questions on the respondents' attitudes on using supermarkets); and (3) A part on the perceived food security (access) status of the households.

The questions for the first two parts were relatively straightforward. However, because food insecurity is a complex, multidimensional concept, measuring it was a challenge. In this study, the Household Food Insecurity Access Scale (HFIAS) was utilized (Coates et al., 2007). This method is based on the idea that the experience of food insecurity (access) causes predictable reactions and responses that can be captured and quantified through a survey. The questionnaire consisted of nine occurrence questions that represent a generally increasing level of severity of food insecurity (access), and nine “frequency-of-occurrence” questions that are asked as a follow-up to each occurrence question to determine how often the condition occurred.

The HFIAS categorizes households into four levels of household food insecurity (access): (1) food secure; (2) mildly food insecure; (3) moderately food insecure; and (4) severely food insecure.

Households are categorized as increasingly food insecure when they respond affirmatively to more severe conditions and/or experience those conditions more frequently (Coates et al., 2007).

The household survey was structured as a multiple-choice questionnaire. However, this was not communicated to the respondents. Instead, the questions were posed without listing the possible responses, and the appropriate answer was ticked; when the answer was different from the options in the questionnaire it was noted. The reason that the answers were not communicated to the respondents was to avoid steering their answers.

4.4.2 Focus groups

Four focus groups consisting of 4–6 people were organized, two in Soweto and two in Muyenga, for a total of 21 individuals. Each group discussion (FGD) lasted approximately 90 minutes. All focus groups were mixed-gender (though the majority of participants was female), and were held at the participants' preferred location and time. The two discussions in Soweto were conducted in Luganda by a research assistant, while the discussions in Muyenga were held in English by the researcher, with occasionally some translations in Luganda by one of the research assistants.

The questions that were asked went into more depth than the findings of the household survey. We tried to investigate motives and reasons behind people's preferences and consumer behavior. Therefore, the FGDs followed a semi-structured questionnaire on the most important topics of this study: preference of food outlets, food access and food security. In addition, questions were asked to gain a more in-depth perspective on the mechanisms employed by households to maintain food security both in times of economic hardship and relatively normal periods.

Each focus group discussion was recorded. The recordings in Luganda were translated and transcribed by the research assistants, while the recordings in English were transcribed by the researcher. Initially, major themes were organized manually according to the structure of the analyzed quantitative data. Subsequently, these themes were coded and additional topics were identified.

4.4.3 Vendor interviews

In total 16 retailers were interviewed using a semi-structured questionnaire.[6] To conduct these questionnaires, a convenience sample was used; in other words, vendors with different types of products who were willing to participate were those who were interviewed (Table 4). The questions posed in the questionnaire relate to demographic data, like age, education and income as well as data on where vendors buy their products and who their customers are.

[6] This excludes two market managers (key informants) who were interviewed in more depth.

Additionally, various questions related to trading, market networks and motivation for the vendors to start their own businesses were posed, to get an idea of the retail environment and the interplay among the different food distribution channels. The vendor interviews were mostly conducted in Luganda by one of the research assistants; responses were interpreted and noted on paper by the other research assistant.

Table 4: vendor interviews conducted

Retailers	Location
Shops	2 vendors Soweto 3 vendors Muyenga
Stalls	2 vendors Soweto 2 vendors Muyenga
Traditional markets	1 vendor Kisugu 2 vendors Namuwongo 2 vendors Kasanvu
Supermarket	1 retailer Muyenga
Chain supermarket	1 supermarket manager (did not want to answer most questions)

4.4.4 Food assessment

All shops where visibly more than 50% of the products were foodstuffs were visited and scanned for their products and prices (N=30). 12 shops were identified in Soweto and 29 shops were identified in Muyenga. Shops that sold a majority of non-food products like cosmetics were excluded from the food product scan/ vendor interviews. In total, 30 shops out of 41 were included in the food assessment: 9 from Soweto and 21 from Muyenga.[7] The food items sold by these different retailers and their prices were documented and compared. For the purpose of this study, the food sold by the different outlets was categorized into: fresh produce (FFV's/fresh fish or meat/dairy), cereals and processed food.

[7] The other 11 shops were excluded because they carried few foodstuffs.

4.5 Limitations

The process of obtaining data and conducting the research posed some limitations in this study and are worth mentioning. Therefore, the research findings should be interpreted with some caution for several reasons.

First and foremost, time and financial constraints led to compromises in the research strategy. The study is based on a small sample, a small study area (only two neighbourhoods) and sampling methods that are not optimal. As a result, the representativeness of the research population is limited. Hence, conclusions drawn in this research apply only to the residents of Namuwongo, and cannot be applied to the population of Kampala.

Furthermore, as I was relatively reliant on the involvement and interpretation skills of my research assistants in most field situations, especially in Soweto, some information may have been lost in translation. By the same token, my relatively high socioeconomic position and status as a Westener may have had an influence on the information gathered from participants in this research.

Moreover, in this study an attempt was made to capture food security (access) by the HFIAS-scale in the household survey. However, access of food is only one aspect of people's food security status; the other dimensions of food security were not looked at and thus the outcomes should be interpreted with some caution. Another limitation associated with the use of the frequency of occurrence questionnaire (HFIAS) is that it depends on participants' recall and self-reports.

Finally, the survey used the household as a unit of observation in the measurement of food access, because it would be both costly and time-consuming to collect data on an individual basis. Thus, important findings at an intra-household level, which could translate to different levels of food security for different members of a household, were not considered (Pinstrup-Andersen, 2009).

5. Geography of food outlets

The aim of this section is to describe the food retail environment of Kampala in general and of Namuwongo in particular. Desk research and observations gave insight into the food retail environment in Kampala as a whole. To study the retail environment of Namuwongo, direct observations were made. Food outlets were located and retailers' opinions were gathered during the fieldwork to identify the geography of the food outlets and their relative importance to the residents of Namuwongo.

5.1 Types of outlets

The food retail outlets found in Kampala can be categorized in three groups: traditional retailers, local modern retailers and international/regional modern retailers. In Namuwongo, only outlets that fall into the first two categories are found, Traditional retailers in Namuwongo are retailers who sell their goods in small stores that they own, or in a rented space located in a traditional market and/or residential area. They own and operate their business by themselves, usually with their family members. There are three types of traditional retailers in Uganda: 1) traditional markets; 2) small shops called “Amaduuka”; and 3) street sellers, who sell their goods openly on the road.

In this thesis, modern retail outlets are defined as those outlets that allow self-service for customers and that have a till. The rest of the locally called “supermarkets’ fall in the traditional retailers group and are called “shops”. Modern retailers found in Namuwongo are small supermarkets that provide a greater variety of food than the local shops, and serve as a one-stop neighbourhood shop. The larger (international and regional) chain supermarkets are not found in Namuwongo. However, one supermarket is included in this research, which is the Kenyan-owned branch of Nakumatt in Bugolobi. This branch is the nearest large-chain supermarket for residents of Namuwongo.

5.1.1 Food outlets in Kampala

As stated before, food retail in Kampala is structured into three categories: traditional retailers, local modern retailers and International/regional modern retailers. Traditional retailers in Kampala include: traditional wholesale markets (e.g. Nakasero, Nakawa and Owino); local traditional (wet) markets; shops, stalls and street sellers. Traditional wholesale markets provide supermarkets, traders and households with larger quantities of FFVs, cereals and processed food, while local traditional markets serve as neighbourhood markets for residents and are found throughout all neighbourhoods in Kampala.

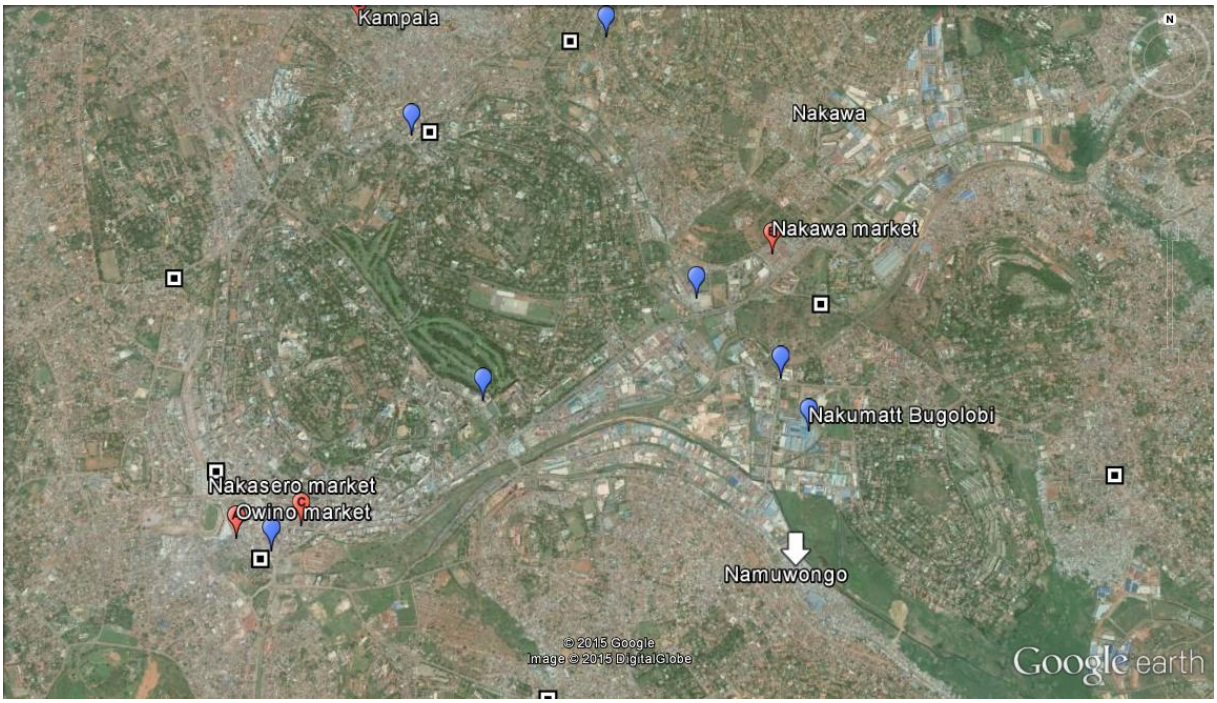
Local modern retailers are neighbourhood supermarkets that mainly serve consumers in their immediate surroundings. International or regional modern retailers are large chain-supermarkets or hypermarkets from Kenya or South Africa that are mostly located in business areas and are solely accessible by public or private transport. These supermarkets are accessible by affordable public transport (mini-van taxis) or by the more expensive bodabodas (motorcycles).

Even though supermarkets are steadily spreading out within Kampala and its suburbs, information on their market share is not available (Kantongele et al., 2007). However, it seems that supermarkets in Kampala have not yet penetrated into the FFVs retail sector. Studies on the growth of supermarkets in Kampala show that fresh food comprises a small percentage of foodstuffs handled by most of them (Elepu, 2006).

Photo 5: Bugolobi village mall, where a branch of the chain Nakumatt is located

The large supermarket, Nakumatt, which was included in this study is located in Bugolobi and, like all chain supermarkets, can only be accessed by public transport or private means.

Map 2 : map of Kampala showing traditional markets, regional supermarkets and international chain supermarkets



Above map of Kampala shows the locations of most of the different food retail outlets[8]. In addition, the research area is marked with a white arrow. The blue landmarks represent the geography of the international chain supermarkets; as shown, the nearest chain supermarket for participants of this study is Nakumatt Bugolobi. The large national supermarkets are indicated by the white squares, while the three wholesale markets are shown with a red landmark.

The map shows that outlets are mostly located in the city center (in the left around Owino and Nakasero market); In industrial areas (Bugolobi where the Nakumatt is situated) and in high-end neighborhoods where mostly expats and affluent Ugandans live (Naguru, Kisimenti). The distance from Namuwongo to the nearest supermarket is 2.8 km (Bugolobi Nakumatt); the distance from Namuwongo to the wholesale markets is 4km to Nakasero, 4.3km to Nakawa and 4.4 km to Owino.

[8] Some of the supermarkets are not seen on the map because they are situated in the outskirts of Kampala. Also, the coordinates were looked up in google earth on the basis of a supermarket list retrieved from https://en.wikipedia.org/wiki/List_of_supermarket_chains_in_Uganda as official data was found. Therefore, the map may be incomplete, and solely serves as a visualization of the research area.

5.2 Food outlets in Namuwongo

In Namuwongo, there are both traditional retailers and local modern retailers. Traditional markets, shops, stalls and street sellers (hawkers) were located by direct observation in both Soweto and Muvenga. Additionally, four local supermarkets were found in Namuwongo, two of which were included in this study.

Map 3: map of Namuwongo showing two supermarkets and three traditional markets

Source: Google earth, 2015

This map shows the study area Namuwongo with on the left of Namuwongo road Muyenga and on the right Soweto. The three traditional markets that were studied are shown by a red landmark: A is Kisugu market, B near the main road is Namuwongo market and C represents Kasanvu market in Soweto. In addition the two local supermarkets (cheaper price at the top of the map and pocket friendly supermarket down in the middle of the map) that were studied are pointed out by a white landmark. Both supermarkets are located within Muyenga but are in walking distance or all participants, albeit further away than traditional outlets which are mostly located in residential areas.

5.2.1 Shops

Shops known locally as “Amaduuka” can range from small makeshift table stands to small buildings outside someone’s house or on the road. Typically, they are small outlets located in a residential area and selling all sorts of goods (toiletries, cosmetics) and foods like cereals, eggs, bread, cakes, butter and cooking oil. Some shops also stock cold-store items like soda and dairy.

Photo 6: shop in Muyenga

They are found in all cities and villages and serve mainly neighborhood residents for fill-in shopping trips. Not all foods needed in most households can be bought at these shops. Most shops are owned by women, helped by other family members (usually sons or daughters). The goods that are sold at these shops are usually purchased at wholesale markets (Owino) and transported by own means or a private hire.[9] In some cases retailers use public transport when they are buying small quantities.

Retailers pay UGX 100,000 taxes yearly. However, there seems to be little regulation when it comes to taxes and quality checks. A female retailer from Soweto describes: “I think they sometimes forget about these shops in the slums because one year I pay [but] the next they don’t come”. It is also not uncommon to bribe tax officers: “Usually I ask them what they need at home, a bag of posho or eggs and it’s fine”.

[9] A private hire is the rent of a passenger car with driver (informal).

5.2.2 Stalls (Fruits and vegetables)

Photo 7: stall with FFVs in Soweto

Like shops, these stalls range from table-top stands to concrete buildings outside houses or alongside roads where fresh fruits and vegetables are sold. The stalls sell foods to consumers in their immediate surroundings and usually sell small quantities to regular customers. These stalls are typically owned by women; indeed, all vendors included in the vendor survey were female. These women all mentioned that they had started a stall because little capital and education was needed for it. In addition, these women considered food vending a suitable source of income when formal employment opportunities and financial resources are lacking. All vendors buy their produce from wholesale markets; the most-mentioned markets were Owino, Nakasero and Nakawa. A few also bought produce directly from farmers when they had the chance.[10] Vendors usually have to buy new FFVs every two days or sometimes even daily. The majority uses public transport to bring the FFVs to their stall locations; they usually use small taxi buses called matatu, which are the cheapest option. However, two vendors from Soweto mentioned that they go on foot to save money on transport costs, even though the nearest wholesale market is at least 4km away.

In total, 6 stalls (besides Kasanvu market, which is also located within the residential area) were identified in Soweto and 28 stalls in Muyenga. However, due to time constraints, only 15 stalls were included in the food assessment: 6 from Soweto and 9 from Muyenga.

5.2.3 Traditional markets

Three traditional markets were identified in the research area. Two traditional markets were located by the researcher: Kisugu market, which has 150-200 vendors, and Namuwongo market of approximately the same size, which is located between Soweto and Muyenga. The third, smaller market, Kasanvu market in Soweto, was identified through answers to the household survey and consisted of a few stalls

[10] Two vendors mentioned that they source produce from farmers near Kampala who they know. However, this was only done occasionally since the distance makes the cost too high.

and shops. The same data on product availability and prices was collected on paper as in the supermarkets and then entered into an Excel spreadsheet.

Photo 8: Kisugu market's surroundings on a market day

Kisugu market (Namuwongo 1) is located in Muyenga, but within walking distance for all residents of Namuwongo. According to the market manager, about 150-200 vendors sell their food at Kisugu market; this number includes owners of shops set up as a boundary of the marketplace. This boundary is seen by the vendors as preventing customers from coming. Both interviewed vendors and the market manager found that the market was too enclosed and therefore only accessible to regular customers who know its location.

Thursdays is market day, when vendors set up stalls around the market, mainly selling household equipment. This is when most customers are attracted to go to Kisugu market.

Monthly rent and taxes are UGX 30,000 and UGX 3000 respectively. This was seen as expensive by most vendors as they do not have many customers due to the market environment. Therefore, interviewed vendors described a feeling of competitiveness among vendors in the market and with vendors of the same produce in the surrounding residential area. One female FFVs vendor explained that it is difficult to compete with stalls in residential areas: "We need to have the same low prices otherwise we do not get any customers, but we need to pay rent and they don't". The same vendor also highlighted difficulties resulting from consumer preferences: "The people from Muyenga like to shop near their home. They do not take the time to come to the market when they can find what they need next door."

Photo 9: A stall in Namuwono market

Namuwongo market (Namuwongo 2) is located on Namuwongo road, which separates Muyenga and Soweto. For the purpose of this study, the location of Namuwongo market is named as Muyenga since Soweto is a more closed-off environment,[11] while Muyenga is more open and connected to the market. Namuwongo market was founded in 1993 after the government evicted it from its original locality (Kisugu market). There is a formal market building that is covered by a makeshift roof and the alleyways are made of sand, which get dirty and muddy after rains. The building is said to compromise the market's environment. The market manager explained that: “the government promised to build us a much more modern market, which was only done halfway till date”.

Tuesday is market day; then the market spreads onto the streets, where vendors set up makeshift tabletop stands or sell their goods from a tarpaulin cover on the ground. Surrounding the market there are concrete buildings filled with small shops like in Kisugu market, but Namuwongo market is more known because of its location near

Most vendors at Namuwongo market that sell FFVs are female, while most butchers and fish vendors are male. These vendors need to pay a monthly rent of UGX 30,000 and taxes of UGX 3000 per month, which are collected by a KCCA (Kampala city council authority) officer.

Although the purpose of this study was not to investigate the impact of modern retail on traditional retail, interviews with vendors at Namuwongo market revealed that vendors do not feel competition from modern food retail yet. The market manager described that modern and traditional retail serve their own purposes, although he does see a change in the consumer preferences of upper-class residents.

[11] Soweto is invisible from the main road because of the cafes and restaurant alongside the road. Moreover, it is divided from other areas by a former train track.

Photo 10: A small part of Kasanvu market

Kasanvu market is located in Soweto and is much smaller than the other markets, mostly serving as a market for consumers in the immediate surrounding neighbourhood. It is comprised mostly of stalls owned by micro-sellers (one or a few different items, for instance only cassava). It is surrounded by a few small shops and characterized by the former train track that divides Soweto and the market into two.

To sell food at Kasanvu market, vendors need to apply for space at the local council. When space is available they need to build their own stall or are allowed to sell from the ground. A monthly rent of UGX3000 is charged and the vendors get monthly visits from the environmental safety local council leader to promote hygiene standards (mentioned standards were proper waste disposal, use of clean water and utensils). However, one vendor disclosed that these visits are not done regularly and no sanctions are used when vendors do not comply with the standards.

5.2.4 Local supermarkets

The supermarkets that were included in the vendor interviews/ food product scan were the ones that were found in the area that stocked a majority of foodstuffs. These include two smaller supermarkets located in Muyenga ('Cheaper Price' and 'Choice and Choice Supermarket'), which serve mainly as neighbourhood supermarkets, and are both in walking distance for all residents of Namuwongo.

The products that are commonly sold in this type of supermarket in Uganda are processed foods, such as packaged foods, edible oils, and grains, and semi-processed foods such as dairy and meat. To outline product prices, the supermarkets were scanned aisle-by-aisle for availability of products and the prices of the most commonly sold products.

In addition, a short interview with the owner of one of the supermarkets was conducted. This retailer had established his business in 1985 in Muyenga. His supermarket is located on the roadside and is easily accessible by foot. The FFVs section of his supermarket is comprised of a small stall in front of the shop that is rented out to a private vendor. The supermarket sells goods that are typically found in Ugandan supermarkets, as well as special items like Indian spices and food. Thus the supermarket's customer basis mainly consists of more well-off Ugandans and Indian-Ugandans. The retailer describes: "My clients are mostly rich Ugandans who come to buy a few items here and there, and we have a lot of Indians coming, they have their special wishes you know... Sometimes they ask me: Do you have this? Then I go and try to find it for them."

5.3 Food prices

To compare prices of all the different food outlets, a food price assessment was taken. The prices of most purchased foodstuffs were noted per outlet type and location. Interestingly, prices of foodstuffs in the same neighborhood type did not (significantly) differ between outlets;[12] thus, a tomato had the same price in all stalls in Soweto, even though the vendors had the opportunity to determine their own prices.

All prices given in the table below are the "best price" a vendor could give. So even though initially there is a possibility of bargaining, the prices mentioned in the two tables are final prices. In addition, all prices are given for the same quantity of food. For instance, the price of maize flour is given per kg, though in some shops in Muyenga maize flour is sold per 2kg. This difference in foodstuffs sold in the two neighbourhoods shows that in Soweto vendors noticeably cater to the needs of poorer people. Food is sold in smaller quantities: Maize flour is sold per kg rather than per 2kg or 5kg as in most shops and supermarkets, or people can find small bags of nakati or ground nuts.

[12] Some price differences of a maximum of UGX100 were found. When this was the case the most mentioned price was noted.

Table 5: Prices of most commonly sold FFVs

Foodstuffs	Shops Soweto	Shops Muyenga	Stalls Soweto***[13]	Stalls Muyenga***	Supermarket 1	Supermarket 2	Nakumatt
Matooke (2 pieces)			500	500			
Casava (kg)			800	1000			
Irish (kg)			2000	2000		2000	3500
Tomatoes (each)			200	200		200	200
Onions (each)			100	100		100	200
Cabbage (full)			3000	3000		2500	3000
Cabbage (bag)			200				
Green Pepper (each)			100	100		100	300
Nakati (small bag)			500				
Carrots (kg)			3000	3000		3500	5500
Avocado (each)			500	500		500	1000
Sweet bananas (bunch)			2500	2500		2500	4000
Watermelon (each)			3000	3000		4000	4000
Pineapple (each)			3000	2500		3000	4000
Mango (each)			1000	1000		1000	3000
Lemons (each)			100	100		200	300
Ginger (kg)						6500	7500

While the large chain-supermarket is much more expensive when it comes to FFVs, as shown in table, this is not true for cereals[14], staples and processed foods (see table 6 on the next page). It seems that the prices of most cereals and staples are actually the same or lower in the chain supermarket than in traditional outlets and local supermarkets. This was expected, as the literature describes how prices of supermarkets for processed foods are lower due to supply chain efficiency and economies of scale (Reardon et al., 2003).

In contrast, both local supermarkets seem a bit more expensive compared to other outlets. This is probably because they do not have effective supply chains, but do bear higher overhead costs like rent and electricity. However, both supermarkets sell more specialized items like Indian spices and foods, so

[13] Stalls in this table also include stalls in traditional markets. Thus, the column "stalls muyenga" includes stalls in the residential area as well as stalls in Kisugu and Namuwongo market. By the same token, the column "stalls Soweto" includes, stalls in Soweto residential area and stall in Kasanvu market.

[14] Prices of cereals like maize flour and millet are difficult to compare since outlets sell different quality grades.

they have a certain customer base.

The local shops in both neighbourhoods seem to have quite similar prices. They are generally a bit cheaper when it comes to staple cereals like maize flour, wheat flower and millet. However, as stated before, these outlets usually sell a different quality grade of cereals.[15]

Table 6: Prices of most commonly sold cereals, staples and processed food

Foodstuffs	Shops Soweto	Shops Muyenga	Stalls Soweto	Stalls Muyenga	Supermarket 1	Supermarket 2	Nakumatt
Maize Flour (kg)**	2000	2200			2200	2400	2200
Wheat Flour (kg)**	2600	2500			2800	3000	2600
Millet (kg)**	2500	2200			2500	2800	2400
Rice grade 2 (kg)	2600	2600			2800	2800	2600
Rice grade 1 (kg)	3200	3200			3200	3600	3400
Bread (loaf)	3000	3200			3000	3000	2800
Eggs (tray)	8500	9500			10,500	10,000	9000
Sugar (kg)	2500	2500			2500	3000	2200
Salt (kg)	1000	1200			1200	1500	800
Cooking oil*	500	500					
Sunseed oil (1L)	7500	7500			7500	7500	7000
Mukwano oil (1L)	5500	5600			5300	5300	5200
Ground nuts (kg)	3000	3000					
Blue Band (250g)	2000	2000			2000	2000	1800
Yoghurt (500g)					3300	3200	3000
Milk (500 ml)*	1000	1000			1600	1500	1500
Silver fish (sack)	1000	1000					

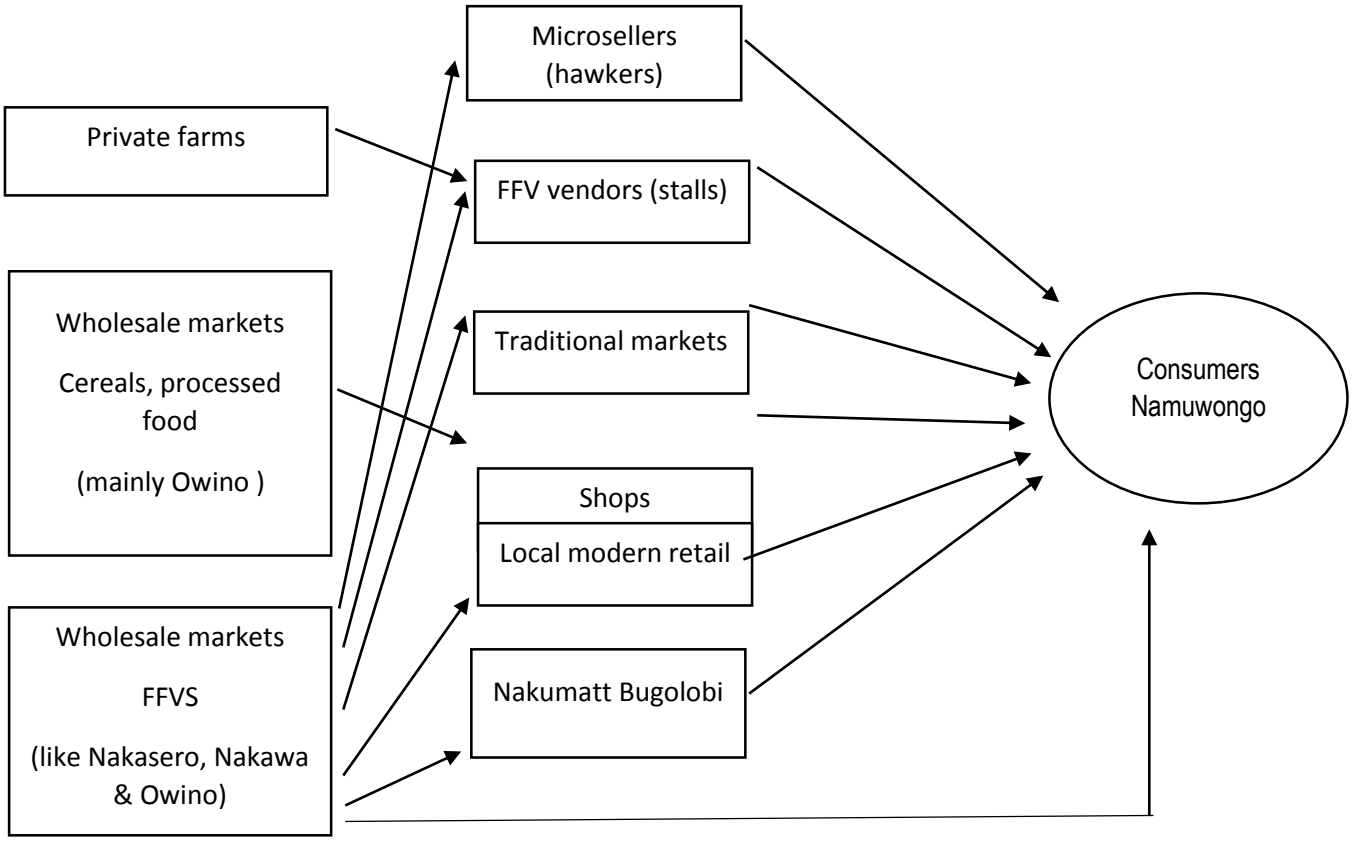
To understand how these prices are determined it is useful to illustrate the connection between the different outlets. Figure 7 illustrates how the different food distribution channels relate to each other and to the consumers in Namuwongo[16]. It shows how FFVs, cereals and processed foods are distributed from the wholesale markets to the urban consumers of Namuwongo.

[15] The quality of the cereals depends on how the goods are processed. Supermarket cereals are usually more processed and therefore "clean", while local shops may sell cereals that contain "stones and sand". However, some respondents said that they actually prefer the lower-grade cereals as they contain more nutrients. Thus, quality in this context is based on consumer preference.

[16] Figure 7 serves as an illustration of the findings in this study, and does not include all distribution channels available to the consumers of Namuwongo. Furthermore, only information on the sourcing of FFVs by the Nakumatt supermarket was found. The researcher did not get insight into the sourcing of other items.

Unlike the case of FFV markets, there are only two wholesale markets that sell cereals and processed foods: Owino market and (to some extent) Nakawa market.[17] Nakasero wholesale market serves as both a wholesale and retail market for fruit and vegetables. Traditional retailers such as stall owners and vendors at traditional markets buy from this wholesale market and sell it to consumers. Some FFVs vendors buy fresh produce not only from wholesale markets, but also from private farms. In addition, a few households also buy directly from farms.

Figure 7: Simple overview of the food distribution in Kampala as observed during the study



Source: Author's elaboration. 2015

[17] The three wholesale markets that are mentioned were found through vendor interviews. The researcher did not investigate whether more wholesale markets are available, as it is believed that these three are the most important markets.

6. Food access: the analysis of quantitative & qualitative data

This chapter describes the outcomes of the quantitative questionnaire that was administered to the person responsible for food purchasing decisions in households. The respondents were determined using a systematic sampling approach from two neighbourhoods, Soweto ("slum" area) and Muyenga (organized residential area). In total 150 households participated. Moreover, the outcomes are interpreted with the help of qualitative data obtained through four FGDs that were conducted, two with participants from Soweto and two with participants from Muyenga. Finally, some data discussed in this chapter come from vendor interviews and informal interviews with key informants.

This chapter starts with a description of studied households, followed by the consumption patterns of these households. Then an analysis of the utilization of the different food distribution channels is given. Thereafter, there is a description of why households frequent certain food outlets and what people buy there. The last part of this chapter deals with economical access, food (in)security of households and how people cope with food shortages.

6.1 Demographics of participating households

The first part of the analysis of the data involves demographic information of the households included in the study. Information on the households comprises: gender of the respondents, education level of the respondents, household size and the employment level of the respondents. When relevant, the characteristics of households were compared between the two neighborhoods. In addition, relevant relationships within the demographic data are explored.

Table 7: Socio-demographic characteristics of studied households

	Muyenga (%)	Soweto (%)	Total (%)	Number (N=150)
Gender				
Male	48.0	52.0	16.7	25
Female	50.4	49.6	83.3	125
Position in the household				
Head of the household	41.5	58.5	35.3	53
Spouse of the head	54.6	45.4	64.7	97

Highest education level of respondent				
None	100.0	0.0	2.0	3
Primary (7 years)	40.0	60.0	26.7	40
Secondary (at least 4 years of high school)	36.4	63.6	44.0	66
Diploma (at least 2 years after high school)	76.2	23.8	14.0	21
University	80.0	20.0	13.3	20
Categorized Household size				
1 - 3 Members	50.0	50.0	38.7	58
4 - 6 Members	57.4	42.6	45.3	68
More than 6 Members	29.2	70.8	16.0	24
House ownership				
Yes	71.4	28.6	32.7	49
No	45.0	55.0	67.3	111

Typical Ugandan family structures are either nuclear or extended. Traditionally the father is the head of the family, who can have one or multiple wives. He is responsible for the well-being of the family and has to ensure the continuity of the lineage by having children and supporting them financially (Ntozi & Zirimenya, 1999)[18].

The mother is responsible for the care of the family, which includes cooking and food sourcing. Since food sourcing is usually a woman's job in Uganda, it is not surprising that the majority of the respondents were female (table 7). This is the case for both neighbourhoods, as the proportionate distribution across the two neighbourhoods was almost equal (see table 7).

Moreover, results indicate that the majority (64.7%) of the household members responsible for food purchase decisions were the spouses in the household. About 22% (28) of the households is headed by women,[19] of which 20 (71.4%) are employed. This finding is interesting since literature often states that a household with a working female head tends to purchase convenience food like processed

[18] Gender roles in Kampala households have changed considerably. In households consisting of a married couple with children, the woman brings in 50-70% of total household income (Snyder, 2000)

[19] This number corresponds with data found in the 2002 population and household census (UBOS, 2002).

and pre- packed goods. However, data shows that there is no significant relationship between female-headed households and preference of supermarkets or shops.[20]

To be able to characterize the participants, the education level of the respondent was asked. The education level of the person responsible for food-purchasing decisions could have effects on a range of issues including access to food, nutritional adequacy and consumer preferences (Popkin, 2001). In addition, a higher educational level for a female head is important in improving skills and income-generating potential.

The study found that the majority (44%) of the respondents had attained secondary education (11 years in school). Others had attained primary level of education (26.7%), diploma level (14%) and university (13.3%). However, 3 (2%) respondents had never attended school. Table 7 shows that as expected the majority of the higher educated respondents (at least 11 years of education) were from Muyenga.[21]

As the household is the unit of analysis of this study, the household size was measured. For the purpose of this study the household size refers to the number of people that live and eat together. Participants were asked how many people they live with and or how many people they buy food for. This number was the same in all cases and includes non-relative household members. When analysing the data, a median household size of 4 was found, though most households had 3 (mode) members. Interestingly, the average household size in Soweto was about 5, while Muyenga had an average of 4 household members. The 2014 census found a comparable average of urban households consisting of 4.2 members (UBOS, 2014).

Households in Kampala need an income from a form of employment to survive. The majority of the employment for these households is in the informal sector. However, the study found that just under half of the households (71; 47.3%) had at least one member who was formally employed (with 53.5% from Muyenga). While salaries may be low, this ensures households of a regular income. In addition, 29 of the households that had an income through formal employment also had an additional income from either informal employment or an enterprise.

Of the 79 households that did not have any member formally employed, 57 had at least one self-employed person, while 17 of them were solely dependent on informal employment for their main source of income and 5 households had members who were informally- and self-employed. In sum, an average of 1.6 members were employed in either informal- formal or self-employment. This average is

[20] Supermarkets and shops generally sell processed and pre-packed food.

[21] The education level figures correspond with data of the statistical abstract. Here, 54% of the urban population had attained secondary level and 25% had attained primary level of education (UBOS, 2013). However, these data refer to an age category of 18-30, which is not consistent with the studied group.

the same across the two neighbourhoods. Of the households who reported to (partly) rely on informal employment (28 households), a higher number was from Soweto (71.4%), which was as expected. Informal employment usually means a low and irregular income.

However, FGDs revealed that some informal employment may provide a higher salary than formal employment. The type of employment we found among participants varies from low salary and irregular informal jobs to high paid formal employment[22]. A few examples of the jobs that participants from Soweto had are: selling fried potatoes on the street, running small shops or stalls, security jobs and day work in construction. In Muyenga, participants were more often formally employed. For instance, one woman was employed as a researcher at the Ministry of Health, several people held government jobs and one person owned a restaurant.

6.2 Food consumption patterns among participating households

To get more insight into the characteristics of the households concerning food access, data on consumption is explored in this section. The table below (table 8) shows the number of meals consumed per day, weekly expenditure on food and household access to non-purchased food. In this section the first two variables are discussed, while access to non-purchased food is addressed in the following section.

Table 8: Food consumption data of household survey participants

	Muyenga (%)	Soweto (%)	Total (%)	Number (N=150)
Number of meals consumed per day				
1 meal	37.5	62.5	5.3	8
2 meals	15.4	84.6	17.3	26
3 meals	58.6	41.4	77.3	116
Meals consumed every day				
Breakfast, Lunch, Dinner	58.6	41.4	77.3	116
Breakfast, Dinner	18.2	81.8	7.3	11
Breakfast, Lunch	0.0	100.0	4.0	6
Lunch, Dinner	22.2	77.8	6.0	9
Lunch	33.3	66.7	2.0	3
Dinner	40.0	60.0	3.3	5

[22] Although generally employment in the informal sector is associated with low irregular payments, incomes of business owners in the informal sector can be higher than salaries in the formal sector.

Categorized expenditure on food (weekly)				
Less or equal to UGX 40,000	35.1	64.9	38.0	57
UGX 40,001 - 80,000	37.0	63.0	36.0	54
More than UGX 80,000	89.7	10.3	26.0	39
Growing food as a household				
Yes	53.3	46.7	10.0	15
No	49.6	50.4	90.0	135
Receiving food transfers				
No	43.6	56.4	67.3	101
Yes	63.3	36.7	32.7	49

Typically, household members consume three meals a day (77.3%), while a few eat only twice or once daily. Most of the households that reported having less than 3 meals a day were from Soweto (see table 8). Generally, households eat dinner as their main meal, prepared and consumed at home, while lunch is the most common meal purchased outside the home, either at work or as street food. Having lunch or another meal outside their home was reported by 32.7% of the respondents.

Data from the survey indicated that street food is not such an important contributor to the households' food intake. However, most focus group respondents mention that they actually do buy street food on a regular basis. In Soweto this was mostly done because street food there was seen as 'cheap and fast'.

However, since most of the food for households in urban settings is still purchased and prepared at home, this study tried to find out how much households spend on food on a weekly basis. Data suggests that slightly more than a third (38%) of the households spend at most UGX40,000 weekly on food items, which is approximately EUR 12.30.[23] Furthermore, 36% of the respondents reported spending between UGX 40,000 and UGX 80,000 a week, which corresponds to between EUR 12.30-24.50.

Lastly, 39 (26%) of the respondents reported having a weekly expenditure of over EUR 24.50 on food. As expected, the respondents with the highest expenditure levels are almost all from Muyenga. Further, although there was no question on other household expenditures included in the survey, it is

[23] Conversion rate derived from http://www.exchange-rates.org/Rate/EUR/UGX on 02-04-2015.

believed that food expenditure make up a large portion of the total household budgets[24].

Lastly, a significant relationship[25] between household size and weekly expenditure on food was found, as the households with fewer members tended to spend less on food weekly. This could either mean that households who have more mouths to feed need to dedicate more resources to food or households with more members may have more resources that they can allocate to food due to a higher proportion of employed members.

6.3 Food Access

One of the aims of this study is to depict where and how households access food. In this section, food access is divided into non-purchased food access and purchased food access. Non-purchased food access encompasses ways of sourcing food other than purchasing, which is discussed first.

Secondly, access to purchased food is discussed. To do this, data obtained through questions on where people buy their food and why they choose a particular outlet are addressed.

6.3.1 Access to non-purchased food

Generally, non-purchased foods, in the form of food transfers and own food production, do not seem to make an important contribution to the food access of the households. Just over 32% of the households receive food transfers of any kind (see table 8). 31 households from Muyenga received some kind of food transfer, compared to 18 households from Soweto. Interestingly, none of the households reported receiving any assistance from food aid programs. This reveals that, like in most urban settings, food purchase is the main source for food access, and access to non-purchased food seems to make little contribution to people's daily food intake.

Although urban agriculture attracts quite significant interest from academics and policymakers (Maxwell, 1994; Katongele et al., 2007), the majority of the surveyed households do not engage in any form of agriculture and only 10% of the households interviewed said they source home-grown food. This is not surprising considering the fact that most households own little or no land at all, especially in the Soweto slum. However, urban agriculture used to play a role in food access of households in Soweto. Our guide points out:

> *"We used to have communal gardens in our wetlands, where people were able to grow their own food, but they have taken them down to build a Chinese company.."*

[24] Mentioned in informal interviews with the LC leader and Namuwongo market manager. The 2013 Statistical Abstract shows that household food expenditure in Uganda rose from 44% to 50% between 2009 and 2011.
[25] Pearson chi-square=11.412, p=0.022

Additionally, the survey demonstrated that inter-household food transfers were of little importance in a households' food provisioning. However, borrowing food was not given as an explicit option when households were asked whether they received food transfers. Furthermore, focus groups revealed that food borrowing actually was prevalent.

This form of social capital appears to be stronger in Soweto than in Muyenga. Respondents of the focus groups in Soweto indicated that they borrowed food or money for food from their neighbors and/or family. This does not happen often in Muyenga, where people usually live in enclosed compounds and often without direct neighbours.

Finally, none of the participants reported receiving any assistance from food aid programs. A focus group respondent reveals that efforts to eradicate poverty and food insecurity may have been made, but have failed:

> *"The government should select good leaders and follow up on their programs. For example, we were made to sign for chicks that the government had provided as a way to earn some money or rear chickens to ensure food, but our leaders instead stole the chicks and we ended up missing out on the program, simply because of poor leadership as a result of corruption".*

Thus, with few options for food access, food purchase and thus economic access is vital for households in Namuwongo. This is also reflected by the outcomes of the food insecurity scale discussed in section 6.4.

6.3.2 Food access to purchased food

Generally, residents frequent various retail outlets. However, results show that traditional markets are frequented by almost all households (96.7%); other forms of traditional retail that are relevant sources for households include shops (frequented by 49.3% of respondents) and stalls (frequented by 43.3% of respondents).

In contrast, supermarkets are only frequented by 38% of the households. This is not surprising because supermarkets are relatively new and have not yet spread throughout the city. Moreover, the smaller local supermarkets seem to be more expensive than their larger counterparts in the city centre, which makes them less attractive for consumers. Households that frequent supermarkets come from both neighborhoods, but the majority are from Muyenga. However, the importance of modern retail differs for households from the different neighborhoods. FDGs revealed that households in Soweto may go a supermarket occasionally:

> *"I go to the supermarket maybe once a year to buy ice cream"*

While residents from Muyenga may use modern outlets more frequently:

"I usually go every month or maybe something like two times a month"

Only 3.3% of the households (all from Muyenga) indicated that they do not frequent traditional markets and prefer supermarkets or shops in their neighbourhood. These households indicated that they found hygiene standards the most important factor. A participant of the focus groups that did not frequent traditional markets indicated that she did not appreciate the congestion of the markets and preferred the convenience of supermarkets.

Figure 8: Utilization of food outlets

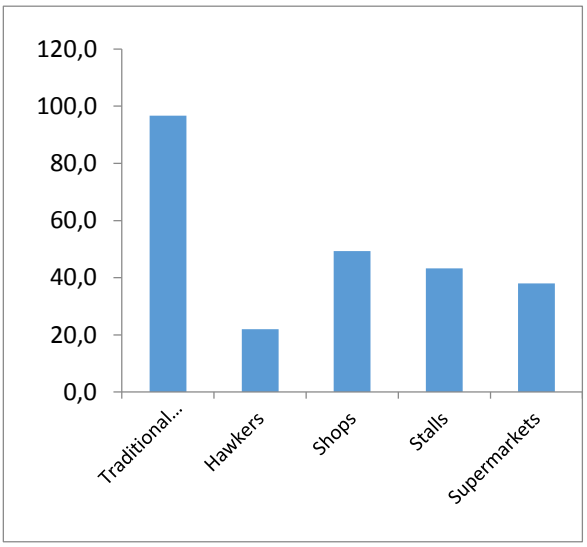
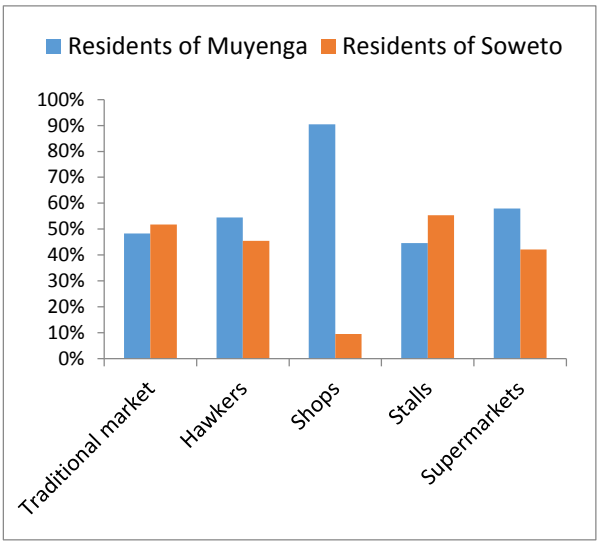


Figure 9: Utilization of food outlets by area



From figure 9, it is evident that an almost equal proportion of households use traditional markets across the two neighbourhoods. However, a bigger proportion of Muyenga residents use supermarkets (58%) and shops (91%) than residents of Soweto. The high percentage of households in Muyenga that frequent shops probably has something to do with their location[26] and the convenience of doing grocery shopping more frequently at nearby outlets. Households seem to use these shops for "fill-in" shopping trips that are planned according to their schedule. At the same time, the preference for supermarkets (and shops to some extent) by Muyenga households could perhaps be attributed to changing consumption preferences associated with increasing income levels.[27] Shops generally sell processed foods like bread, pasta, cakes, spices and soda that are not part of a standard Ugandan diet.[28,29]

Generally, traditional markets are frequented by nearly all households, making them a vital food

[26] Location was the most frequently mentioned reason for preference of food outlet in Muyenga (85.3%).
[27] General impression from observations, data from FGDs and income indicators as found in the survey: high food expenditure, house ownership, vehicle ownership.
[28] A study found that dietary diversity in Uganda was consistently higher in urban areas than rural areas. However, the urban poor had dietary diversity scores as low as the rural poor (Smith and Aduayom, 2003).
[29] Wheat consumption (bread and pasta) increases considerably with income (Kearny, 2010)

retail outlet for residents of Namuwongo. However, to better understand the relative importance of the different outlets, participants were asked to indicate which type of outlet they preferred to do their food shopping. The majority (82%) indicated that they prefer traditional markets over all other types of food retail. This finding is in line with the literature, which states that traditional markets remain the most important source for consumers in developing countries (Neven & Reardon, 2004).

6.4 Reasons for preference

While the preference of shops is unequally distributed between Soweto and Muyenga, the preference for traditional markets is almost equally distributed between the two neighbourhoods; the same percentage households from both neighbourhoods prefer buying groceries from traditional markets. The reasons why households prefer a certain outlet type are discussed for each neighborhood in this section. The factors that were most important for households of the different neighborhoods are highlighted in table 9.

Table 9: Percentages of mentioned reasons for preference per neighborhood

Reasons for preference (%)	Soweto	Muyenga
Food prices	89.3	76
Location	86.6	85.3
Quality of food	34.7	22.7
Availability of food items	25.3	53.3
Relationship with the retailer	21.3	38.7
Hygiene standards	6.7	21.3
One-stop shopping concept	0	0

6.4.1 Soweto

All residents of Soweto that participated in the household survey stated a preference for the traditional outlets (traditional market, stalls & shops). The main reasons for preference are food prices (89.3%), the location (86.6%) and the bargaining power (as revealed in the FGDs) . Quality of food (34.7%), availability of food items (25.3%), relationships with the retailers (21.3%) and hygiene standards (6.7%) seem of less importance for residents of Soweto.

Thus it seems that the prices of food at a particular outlet are paramount for participants from Soweto. This finding is supported by studies about consumer behaviour in developing countries, where

most households have a low disposable income and little purchasing power.

As described in chapter 4, prices do not differ significantly between traditional and modern retail except for FFVS. However, traditional retailers seem to cater to the needs of poorer households. They sell food in small quantities to make them accessible for the poorest families; cabbages are cut up and sold in small bags, people can buy cooking oil in a quantity that they can afford, and meat and fish is sold in small portions. And even though households spend more in total when buying small quantities compared to buying food in bulk, this characteristic of traditional retail seems vital for poorer households of Soweto. A respondent in one of the focus groups illustrates:

> *"One can always find something to buy with the money he/she has at hand at the market—money that does not get you anywhere in a supermarket".*- FGD participant Soweto

Moreover, traditional outlets also cater to the poor by giving them bargaining power. A fruit and vegetable seller at Namuwongo market explained:

> *"I always try to see if someone can afford or not, then when I think someone is poor I may reduce my prices".*

This finding resonated in the responses of the FGDs:

> "*The advantage of the market is that we have the bargaining power. As a result, the vendor can at times reduce the prices".*

In addition, traditional retailers are widely available within Soweto. The location of these outlets is essential for most slum dwellers. With 86.6% of the participants mentioning "location" as a major factor influencing their preference, this is found to be almost as important as the food prices:

> "*The market is near, [so] one does not need to spend money on transport."*- participant of a FGD

> *"I don't even think of going anywhere else but the local market. When I find money for lunch I go and buy some vegetables and maybe some posho (maize flour) at the market, then do my best to try and raise money for supper...Sometimes I manage and sometimes we are surviving on lunch only.*"- respondent FGD Soweto

In Soweto, the respondent above is not the only one who goes food shopping at least twice a day. It is a common practice due to a lack of household resources. To access the larger supermarkets, people need a form of transport. Although the transport is affordable for most people, these food-purchasing practices make supermarkets, which are mostly located in business areas, spatially and financially

inaccessible.

As stated before, the least important factor in choosing an outlet for households in Soweto is hygiene standards. The quality (34.7%) and availability of food items (25.3%) also don't seem to play a major role when it comes to outlet preference. This was not surprising considering the low incomes of most households; focus group participants even explained that they usually compromise on quality and quantity of their food when they lack financial resources.

Finally, it was anticipated that preference of a certain outlet would be greatly influenced by interpersonal relationships between consumer and retailer. However, as described, 'relationship with the retailer' was only mentioned by 21.3% (N=16) of respondents from Soweto as one of the main factors influencing their choice of food outlet.

Nevertheless, vendor interviews and focus groups with residents of both neighbourhoods reveal that even though interpersonal relationships between vendor and costumer may not be the first answer that comes to mind when asked about preferences of food outlet, they do play a significant and meaningful role within the (traditional) food retail environment of this study. Thus, even though the price of food and the location of the outlet are the foremost considerations in outlet preference in Soweto, establishing interpersonal relationships and informal agreements that accompany those relationships are in some cases essential in food access. This finding will be elaborated on in the last section.

6.4.2 Muyenga

Participants from Muyenga find location of food outlets of greatest importance. Consequently, almost all households prefer traditional markets or shops/stalls located near their homes. Proximity as a reason for preferring a retail outlet is also believed to be important because of traffic congestion in Kampala. Even though there are affordable means of transport, getting somewhere is still costly in terms of time.

Prices of food products (mentioned by 76%) are a little less important in Muyenga than in Soweto. This is in line with initial expectations, since some households have a considerably higher disposable income than households in Soweto,[30] so their purchasing power is higher and households are therefore probably less influenced by price mechanisms for their food-purchasing decisions. However, most households in Muyenga do find prices of food greatly influence their food-purchasing decisions, which is one of the reasons why traditional retail remains strong in Kampala.

Furthermore, almost all of the participants of the household survey also indicated that they frequent both traditional and modern outlets. While analysis of the data obtained by the household survey indicate that households in Muyenga prefer traditional retail over modern retail, focus groups

[30] General impression from observations, data from FGDs and income indicators as found in the survey: high food expenditure, house ownership, vehicle ownership.

outcomes show that participants seem to view traditional markets and supermarkets as complementing one another, with both being of importance. This finding also resonates with the literature on food consumption patterns among middle-income households in developing countries.

Even though outcomes of the household survey indicate that for most households the quality of food is not the most important determinant in outlet choice (response rate of 22.7%), it does seem important in the use of modern or traditional retail for the FGD participants. Generally, supermarkets seem to sell higher quality processed and packaged foods, which are usually bought in bulk, while traditional markets were said to offer more advantages than supermarkets when it comes to fresh food (FFVS, meat, fish)[31]. However, the advantage in fresh food of the traditional market is sometimes compromised by a lack of quality control. Most respondents said it could be difficult to purchase quality food in traditional outlets:

> *"Poor quality foodstuffs are a challenge in the markets today, since the vendors don't inform their customers about the quality of foodstuffs, unlike supermarkets, where one is made aware of the quality of a product he/she is about to purchase."* a participant of an FGD

> *"I go to the same vendor because somewhere else I may buy a bag of tomatoes and when I am home I can find half of them rotten." a participant of an FGD*

Although this was not mentioned explicitly by any of the participants, in an informal conversation a shop owner from Muyenga explained that the quality of food differs between traditional and modern outlets. For instance, cereals (e.g. millet, maize flour, rice) are sold in different grades. Traditional outlets usually sell the lower grades of cereals, which are less processed. These lower grades usually contain more nutrients but are also found to contain 'sand and stones'.

Furthermore, some FGD participants found shopping convenience compromised at traditional markets, due to congestion and poor hygiene. Additionally, 21.3% of the survey participants found hygiene standards of the retail outlet important, which is substantially higher than reported in Soweto.

The importance of hygiene standards of outlets for some households was also reflected in FGD outcomes. Multiple participants stated that the marketplaces and surroundings did not always have the adequate convenience to do their shopping:

> *"I usually only buy my meat from one butcher in Kisugu market, because at other butchers one may find intestines covered in flies all around someone's stall."* – an FGD participant Muyenga

[31] Most of the FGD participants find that fresh food in supermarkets is of lesser quality because it is refrigerated for extended periods of time.

> *"I tend to go to supermarkets when I don't feel like going to the ever-congested marketplaces."* – an FGD participant Muyenga

And even retailers themselves report shortcomings in the market environment. A butcher and market manager who sells his meat at Namuwongo market says:

> *"I have regular customers from Muyenga that still come, but I see a big shift in their preferences. For example, when it rains and the alleyways of the market get muddy, they will definitely choose the convenience of supermarkets. That's why I wish the government would hurry and modernize our building as they promised".*

Meanwhile, what was seen as a convenience of supermarkets is the availability of most items in one store. And even though the one-stop-shopping concept was not mentioned by any of the participants of the household survey, in the focus groups in Muyenga this was mentioned as a competitive advantage offered by modern retailers.

The participants of the focus groups that prefer supermarkets (only households in Muyenga) valued shopping convenience, a greater variety/quality of goods, and cleanliness of these outlets. However, the frequency of visiting modern retailers is not as high as their traditional counterparts. Participants of the focus groups in Muyenga seem to do their grocery shopping more frequently at traditional outlets because they buy fresh food more often, and do "fill-in" shopping trips at shops and stalls that are located near their homes; they seem to plan their shopping activities according to their schedule.

6.5 Purchased food for the Ugandan food plate

As mentioned in the last section, the outlets all serve a different purpose; traditional markets seem to provide fresher vegetables and fruits, while supermarkets are mainly used for the purchase of processed foods. To elaborate on these qualitative findings, data from the household survey on what types of food are purchased where is briefly discussed in this section. Thereafter, some examples of traditional meals and important food products are outlined.

6.5.1 food types purchased

Table 10: Type of food purchased from different food outlets

	Traditional Market	Supermarket	Shops	Stalls/Hawkers
Vegetables/Fruits	58.2%	0.0%	0.0%	100%
Fish meat	23.3%	4.5%	0.0%	0.0%
Dairy products	0.4%	12.4%	0.0%	0.0%
Processed food items	0.4%	56.2%	81.0%	0.0%
Non-food items	0.0%	13.5%	4.8%	0.0%
Cereal food items	17.7%	13.5%	14.2%	0.0%
Total	**100%**	**100%**	**100%**	**100%**

Table 10 gives an overview of what is purchased at the different outlets. It confirms the findings discussed in the section above, that traditional markets are mostly frequented to purchase fresh fruits and vegetables, while supermarkets and shops mainly serve as outlets for cereals and processed food items. This is in line with responses in the FGDs and literature on *supermarketization* that states that in most SSA countries supermarkets still have to penetrate the FFV sector and traditional markets have proven to be robust (Crush & Frayne, 2011b).

Since the traditional Ugandan diet is mainly made up of fresh foods and cereals, table 11 also reflects the relative importance of traditional outlets. Moreover, as table 11 shows the categorized food types, an illustration of what items actually belong to these categories is given below.

Table 11 : Reported food items purchased by participants of household survey

FFVs	Meat/Fish	Processed food	Cereals
Matooke, sweet potatoes, Irish potatoes, yams , cassava, onions, tomatoes, green peppers, beans, peas, groundnuts, avocado, bananas, pineapple, jackfruit, mango, watermelon, lemon, oranges	Fresh fish, smoked fish, silver fish, pork beef, mutton	Cooking oil, sugar, salt, bread, pasta, blue band (butter), soda, cakes, biscuits, spices. milk, yoghurt, ghee, ice-cream	Posho (maize flour), millet, Soy flour, wheat flour. Rice

6.5.2 Ugandan Food plate

To get an idea of what dishes are made with the food items discussed in the previous section, the typical Ugandan food plate is discussed in this section.

An example of a typical Ugandan diet is presented in Box 1. As can be seen, a Ugandan food plate usually does not consist of a lot of colour. Meals are usually centered around staple carbohydrates (Posho or Matooke), which are accompanied by proteins (mostly beans, a sauce of groundnuts or dried silver fish and sometimes small amounts of meat) with a side of vegetables (usually Nakati or cabbage).

As Uganda is situated next to Lake Victoria, fish and particularly small dried silver fish called Mukene are plentiful and affordable for most people. Moreover, groundnuts and beans are locally grown and provide an affordable option for households.

Box 1: Typical Ugandan diet

Maize flour is the most common ingredient in a Ugandan diet; a typical breakfast in Uganda is either porridge (made from maize flour or millet) or chapati (flat bread made out of maize flour).

Another commonly consumed breakfast is Katongole, which consists of Matooke (boiled and mashed green banana) and E'byenda (cow intestines).

Main dishes usually consist of a sauce made from groundnuts, beans or meat. This is accompanied with starchy Posho (made from maize flour) or Matooke

Matooke with groundnut sauce, rice and cabbage

The more affluent include white potato (often called "Irish"), pasta and rice in their diets; they also eat more meat including pork, chicken, mutton and beef.

Typical Ugandan snacks are "Rolex" (chapati filled with eggs, onion and cabbage) and "Kikomando" (chapati that is cut into pieces and served with fried beans).

In Muyenga, households seem to eat a wider variety of foodstuffs. They diversify their food intake by including rice and pasta in their diets. It also seems that when a household is able to allocate more resources to food, they are likely to include more proteins in the form of meat and fish on their plates.

However, the variety in carbohydrates (rice, pasta and Irish potatoes) is usually only used supplementary. Households that participated in the FGDs all reported to still eat (and mostly prefer) Posho and Matooke.[32] The importance of these two staples was also reflected upon by participants in every FGD, and in two key informant interviews. When asked about their preferred food type, Posho and Matooke were mentioned frequently. For example, one respondent said that: "All my meals include posho: breakfast, lunch and dinner". Another asserted: "I need either posho or matooke'.

[32] Diets vary per region. Matooke is mostly important in the central region of Uganda because of agronomic and cultural reasons (Mwesigwa, 1995)

Other types of carbohydrates are often seen as less filling. For example, a respondent reported that: "sometimes I eat pasta but it makes me feel like I haven't eaten after one hour". Another said: "Even if I eat 10 pieces of Irish, I only feel satisfied when I have my Matooke". And according to a third respondent: "In our culture we regard posho as food for men. They need it to stay strong."

Thus, even though diets seem to have diversified for some households, people still hold on to their traditional staples. This also shows that patterns of food consumption cannot be explained by access to resources and purchasing power alone. The choice of food and the relative importance of some types of food also seem to be culturally constructed.

6.6 Economic food access

As food purchase is the main source for a household's food provisioning, financial resources are essential for sufficient food access. Therefore, this section discusses the socio-economic status of the participants. Thereafter, the levels of food (in) security as derived from data of the HFIAS-scale are shown. To investigate the connection between food security and the set-up of the food retail environment we compare the sources of food for food insecure and food secure households. Finally, this section explores the factors that influence food security through a logistic regression model.

6.6.1 Socio-economic indicators

As stated before, Soweto and Muyenga are visually distinct when it comes to the socio-economic status of their residents, and the data shows a distinction in the food shopping and consumption behaviour between residents of the two neighbourhoods. However, to better understand the impact of social-economic status on consumer behaviour and to measure what type of customer is attracted to a certain type of outlet, a few indicators for socio-economic status have been adopted. The most direct measures of socio-economic status are income and consumption (expenditure) (Vyas & Kumaranayake, 2006).

Since incomes in many households in developing countries are irregular, measurement and self-reporting is often too difficult. Therefore, the weekly food expenditure of households was included in the survey as a measurement of socio-economic status. In addition, the education level, house ownership, ownership of a vehicle and number of employed household members, and whether this was formal, informal or self-employment, were documented.

Table 12: Food outlet of preference versus weekly food expenditure

Preferred food outlet	Less than UGX 40,000	UGX 40,001 - 80,000	More than UGX 80,000	Total
Traditional market	46	48	29	123
	37.4%	39.0%	23.6%	100.0%
Supermarket	0	2	2	4
	0.0%	50.0%	50.0%	100.0%
Shop/stalls	11	4	8	23
	47.8%	17.4%	34.8%	100.0%
Total	57	54	39	150
	38.0%	36.0%	26.0%	100.0%

A cross-tabulation of preference and weekly expenditure on food shows that people who prefer traditional markets tend to spend less than UGX 80,000 weekly on food (76.4%), while those who preferred supermarkets tend to spend more than UGX 40,000. The weekly expenditure of those who prefer shops is spread out across the three expenditure brackets (see table 12).
This shows that households that are able to dedicate more financial resources to the purchase of food are more likely to utilize modern retail.[33]

In addition, results indicate that a statistically significant relationship[34] exists between the education level of the respondent and the preferred food outlet. All respondents who preferred supermarkets had a tertiary or university level of education, while the majority (75.5%) of the respondents had attained secondary or a lower level of education. This finding is in line with literature on consumer behaviour that states that higher levels of education are associated with utilization of modern food retail.

Furthermore, a significant relationship[35] was found between ownership of a vehicle and outlet preference. Households that own a vehicle are more likely to prefer supermarkets than households that

[33] Since a significant positive relationship between household size and weekly expenditure on food was found, this does not necessarily mean that these are high-income households.
[34] (pearson chi-square=16.536, p=0.035)
[35] ($\chi 2 = 18.33$ $p < 0.001$)

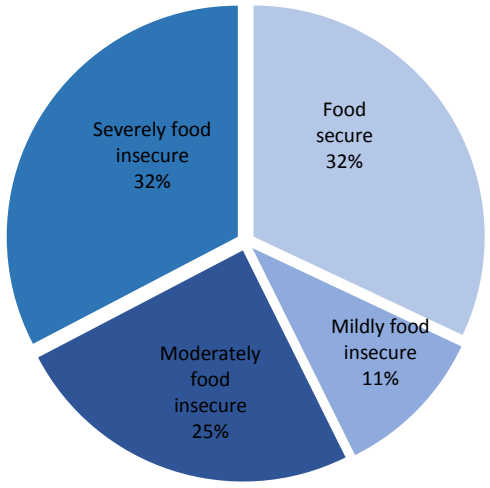
do not.[36] This could mean two things: First owning a vehicle is an indicator of a higher income household that is more likely to patronize supermarkets; second, owning a vehicle increases spatial access of supermarkets. Since public transport is affordable and widely available in Kampala, it is more likely that ownership of a vehicle is an indicator of the higher socio-economic status of a household.

Finally, no statistically significant relationship was found between ownership of residence and preference of food outlet. Initially it was expected that people who own their residence may have a higher income to be able to purchase a house and may have more resources to dedicate to food purchase, since they do not have to spend money on monthly rent.

6.6.2 Food insecurity

This section examines how the current food retail environment of Kampala is related to the food security status of households in Namuwongo. The section starts with an analysis of food security figures, as shown by the HFIAS-scale in the survey. These outcomes are categorized, and based on these categorizations an overview of the patronage of the different outlets is given. Thereafter, several demographic, social and economic variables that seem to be closely related to food insecurity of the household are examined.

Figure 10: Pie chart showing food security levels



As the pie chart shows, 32% of the households are considered food secure according the HFIAS-scale (Coates et al., 2007). An equal percentage was found to be severely food insecure, while the rest was either mildly food insecure (11%) or moderately food insecure (25%). In order to compare data, these findings were divided into two groups: Food secure and mildly food insecure make up the food secure group, while moderately food insecure and severely food insecure make up the food insecure group. Thus 43% of the households are food secure, and 57% of the households are food insecure. A comparison of food-secure and food-insecure households across the two neighborhood shows that the majority (71.9%) of food-secure households are from Muyenga, while 66.3% of the food-insecure households are from Soweto. This is a statistically significant difference,[37] and is confirmed by the fact that the food insecure in this study have a lower weekly food expenditure than the food secure.

[36] The number of households that prefer supermarkets is very low (N=4). Therefore, no generalizations can be made based on the findings.
[37] (Chi-square = 21.366, p<0.001)

To illustrate these findings: A severely food insecure household eats less meals or smaller portions, and/or experienced any of the three most severe conditions (running out of food, going to bed hungry, or going a day and night without eating). In other words, any household that has experienced one of these three conditions even once in the last 30 days is considered severely food insecure (Coates et al, 2007). However, since the questionnaire consists of nine occurrence questions that represent a generally increasing level of severity of food insecurity, most food-insecure households experience most or all of the aforementioned conditions.[38]

Findings from an interview with a Local Council leader are in line with these household food insecurity survey findings. She agrees that a lack of resources is detrimental to a households' food provisioning:

> *"The problem in this community [Soweto] is that the biggest proportion of people's income has to be spent on food, which means at the end of the day kids maybe cannot go to school or people don't have enough to eat".*

Especially in Soweto, food insecurity is found to be prominent among households according to the Local Council Leader:

> *"The main problem is money in this area. They earn little, they spend a lot. Whereby you find that food is there but they are not able to buy it. So when I move around in the community I find many families who eat once a day…They take food at 4! Until the next day at what? At 4."*

Nevertheless, participants from Soweto aren't the only households that are experiencing compromised diets. Data from the household survey shows that, after categorizing data into food secure and food insecure, 28.1% of the food-insecure households reside in Muyenga. However, as all participants of the focus groups held in Muyenga considered themselves to be food secure, no comparable qualitative data was found in this study.

[38] A full description of the food security categories as proposed by the Food and Nutrition Technical Assistance Project (FANTA), and their interpretation, is found in the appendix.

6.6.3 Sources of food for food-secure and food-insecure households

Figure 11: Graph showing source of food versus household food security

The graph above shows that the households that are food insecure according to the HFIAS-scale make more use of the traditional markets compared to the food-secure households. Furthermore, food-insecure households seem to be using supermarkets less than food secure households. As discussed earlier, growing food as a household and receiving food transfers does not seem to contribute to household food security access in this sample.

6.6.4 Factors influencing food (in)security

As food access in Namuwongo seems mainly based on economic access and financial resources of the households, the food security (access) status of a household is also mostly reflected by income level indicators. Consequently, the logistic regression used to predict the food security status of households shows household size, area of residence and ownership of a house and indicating that the main problem in getting enough food is the cost of food are the main factors influencing food security. These variables explained 72.1%[39] of the overall factors that influence food insecurity.

Table 13: Overview of predictor variables for food security

Predictor Variable	Odds Ratio	95% CI	p-value
Household size (Reference = Household has 1 member)	1.287	1.181 - 1.393	0.018
Area of Residence is Soweto (Reference = Muyenga)	5.939	4.501 - 5.377	0.000
Household owns a house (Reference = Household rents a house)	0.335	-0.173 - 0.843	0.031

[39] (Cox & Snell R-square = 0.279)

Predictor Variable	Odds Ratio	95% CI	p-value
Household finds cost of food as a problem (Reference = Household does not find cost of food as a problem)	2.808	2.356 - 3.260	0.022
Household doesn't grow own food (Reference = Household grows own food)	0.847	0.145 - 1.549	0.813
Household does not receive food transfers (Reference = Household receives food transfers)	1.681	0.247 - 1.115	0.377
Households preferred food outlet (Reference = Household prefers Traditional markets)			
Household prefers getting food from supermarket	0.501	-0.852 - 1.854	0.609
Household prefers getting food from shops	2.247	1.684 - 2.810	0.15

Firstly, outcomes of the logistic regression show that a higher household size significantly (p=0.018) influenced the likelihood of a respondent indicating that his or her household was food insecure. An increase in the household size by 1 member leads to 1.287 times higher chances of a household being considered as food insecure. Research also suggests that that larger household size tends to have a negative impact on food access and availability of an individual (Garret and Ruel, 1999). The size of a household therefore may have the potential to affect its food security status.

Secondly, respondents from Soweto were 5.939 (p<0.001) times more likely to report that their households are food insecure compared to respondents from Muyenga. As described, these two neighbourhoods are visually socio-economically distinct. Thus, as expected, this finding reflects the importance of financial resources for food security.

In addition, households that owned their house were less likely to indicate that they are food insecure, compared to households that rented (see table 13). As mentioned before, this could mean that house ownership reflects a higher income level of a household, and/or that households that own a house do not need to dedicate their resources to monthly rent and have more left to spend on food.

Thirdly, households that considered the cost of food as their main problem in getting the food they need were 2.808 (p=0.022) times more likely to say that they are food insecure compared to households that did not consider the cost of food as their main problem in getting food that they need.

Access to non-purchased food in the form of either food transfers or own food growth were expected to influence food security and were therefore included in the model. However, the results show that these

factors are not significantly contributing to the model. This finding is situ-specific and is probably due to the relatively small sample size. Moreover, the access of food from a particular outlet also does not statistically significantly affect food security status as shown in the above logistic regression.

Lastly, employment and type of employment was initially measured as a possible influence on food security status. However, data obtained from the household survey was not suitable for the model because it was not specific enough. The survey asked for the number of people employed in the household and what type of employment. This may not be necessarily be of influence for the food security status of a household, because although multiple adults may be working, they do not necessarily contribute to food purchase.

6.7 Informality, coping strategies and the importance of social capital

Food security figures as described in the above section should be regarded within their wider context. Therefore, an attempt was made to unravel how household's make sense of their food security situation. This study found that household's adopt coping strategies to deal with food shortages. Moreover, social capital was found to be an important asset for a households food security. These findings are described in section 6.7.1. Furthermore, social capital plays an important role in the food retail environment in the form of interpersonal relationships, reputation and other informal mechanisms; these are discussed in the last section of this chapter.

6.7.1 Coping strategies

Even though the households that have fewer financial resources more often consider themselves food insecure, this does not make them actors who are passively suffering. Households adopt strategies to overcome their problems in getting the food that they need. The coping strategies found in this study regarded social capital and changes in consumer behaviour.

When households are facing food shortages, they often have to resort to borrowing food or money for food. In this study this was either borrowing from neighbours/relatives or borrowing directly from vendors by buying food on credit. This form of social capital was especially important in Soweto, where people almost live on top of each other. Respondents of the focus groups in Soweto all stated that they borrowed food or money for food from their neighbours and/or family when there was not enough food in the household. This was not so prominent in Muyenga, where people usually live in enclosed compounds and often without direct neighbours.

Borrowing can be seen as a positive coping strategy, whereby relationships and mutual trust is created among neighbours or between consumers and vendors. However, some participants of the focus groups in Soweto pointed to the downside of borrowing food or money for food:

> *"This affects us since we resort to borrowing food and money, which isn't good because we are forced to lead a life of debt. In the end we start hiding from the people who demand their money [from us]".-* A FGD participant

When it comes to food access, the poorer families in particular depend on social ties. Borrowing food from others is also associated with enhancing a household's social capital:

> *"Because at the end of the day one gets food to eat and also manages to feed the children with borrowed food or money and then pay later. It's also important because as a result of borrowing from the neighbour this creates a relationship and this helps, because at the end of the day, they keep supporting each other in times of need".* FGD participant, Soweto

Besides borrowing from neighbours or relatives, borrowing or buying food on credit from vendors is also common practice:

> *"At times when I struggle to find money for food I go to my friend [vendor] and buy food on credit"* - FGD participant, Soweto

Additionally, some participants of the focus groups of both neighbourhoods reported particular occasions when reduced access to food (either from price fluctuations or a delay in salary payment) would change their consumption patterns. They often used traditional retail as a coping mechanism, by buying food on credit, buying smaller quantities and buying cheaper types of food that are commonly sold in traditional outlets. This was found both in Soweto and Muyenga:

> *"Sometimes when my husbands' salary is delayed for weeks I buy smaller portions of food. Instead of buying posho in 10 or 5kgs, I buy 1 kg at the market".* FGD participant, Muyenga

> *"When my husband's salary is delayed I usually just buy less, but sometimes when I need something and the money isn't there I buy on credit."* FGD participant Muyenga

Finally, besides borrowing food, poorer families tend to resort to cheaper options to ensure daily food intake. A local council leader, who was associated with local council 1 and 2 (which includes both Soweto and Muyenga), points out that:

> *"In Soweto there are those who prepare beans and maize, which assists people around in the community, which they take it for breakfast at home with their families. This costs only UGX200 so it's a bit cheap around here in the community. Like when you go to Muyenga you can't find*

that! Here in Soweto you can find Samboosa, one for UGX 100 but when you go to such a big area like Muyenga you find them at UGX 500. So poorer people there may have a hard time in that area compared to here"

Some families resort to buying food directly from farmers:

"I buy food from people who have gardens, who sell at cheaper prices than in the markets. When I was given cassava that we ate in three days it was at only UGX 2000. This was a lot more than the amount given in the market so this helps us to save money spent in food".

From vendor interviews, traditional (informal) retail was also found to be a coping mechanism to enhance vendors' financial situations when formal employment opportunities are insufficient. One of the vendors, like many others, explained:

"This job was easy for me to do. I didn't have so much education and I need only little capital to start my stall".

6.7.2 Social capital and informality in food retail

As the food retail environment in developing countries often relies on immediate market exchange, informal agreements and interpersonal trust (Neven & Reardon, 2004), this study aimed to discover the importance of these factors in the food retail environment in Namuwongo. Initially it was expected that preference of a certain outlet would be greatly influenced by interpersonal relationships between vendor and retailer. However, as described above, relationships with retailers was only mentioned by 43 respondents as one of the main factors influencing their choice of food outlet, while prices of food and location are regarded as much more important.

However, vendor interviews and focus groups with residents of both neighbourhoods reveal that even though interpersonal relationships between vendor and customer may not be the first thing that comes to mind when asked about preferences of food outlet, they do play a significant and meaningful role within the food retail environment of this study.

Along these lines, the traditional food retail environment (data obtained from focus-group questions on traditional outlets and vendors of such outlets) in this study seems to be grounded on interpersonal relationships and informal agreements between wholesalers, vendors and consumers.

Firstly, FFV vendors and shop retailers who buy their goods from traditional wholesalers at wholesale markets like Nakasero and Owino rely on reputation and trust of the wholesaler that is acquired through recurrent (business) interactions with the wholesaler. A FFVs vendor illustrates this:

"I go to Nakasero every two days, and buy from the same trader...He always gives me the best price and at times when I'm broke he may give me my vegetables on credit".

When it comes to food quality and price mechanisms, informal arrangements also play a role. Food is inspected there and then, and prices are negotiated between buyer and seller. Secondly, vendors and shop owners themselves also actively try to build interpersonal relationships with their customers. The market manager of Namuwongo market explains:

"I always try to understand my customers to avoid any cases of misunderstandings and mistrust".

All vendors claim to sell food to their regular customers on credit to:

"Keep getting customers and ensure that all the food gets sold without it getting spoilt".

This upkeep of social image and the creation of relationships with their customers does not only benefit them in terms of sales; the focus group discussions in Soweto revealed that consumers sometimes lend money to their trusted vendor to help them raise enough capital to invest when food prices are high. One woman said:

"We give particular vendors some money and each time we take food from them, they deduct from the money they owe us".

7. Conclusions & Discussion

7.1 introduction

The introduction of modern food retail outlets is a visible sign of change in the food retail environment of Kampala. To explore what this means for the way urban households access food three research questions were addressed. What are the characteristics of the food retail environment? Where do people source their food? And what factors influence people's food security (access) in the current retail environment?

Two neighborhoods in Namuwongo, Kampala were chosen as a case study. Here, data from low-income- and middle/high-income households were collected to explore different consumption patterns and food access issues.To gain and in-depth insight, multiple methods were adopted. In this thesis, quantitative data (household survey) has been followed by qualitative data (FGDs and vendor interviews) as supplementary methods to gain an understanding of trends in food access and consumption behavior as well as the underlying mechanisms influencing these behaviors. In addition, this study has documented the procedures and tools that were adopted (see Appendices) as means to increase transparency and reliability.

Although some findings of this study are supported by secondary data, it is acknowledged that the empirical findings for this case study may not be generalizable to other settings; due to the small sample size and the need for context specific knowledge that includes people's motives, perceptions and ideas. However, the aim of the study has not been to emphasize generalizability or common patterns, but rather to explore emerging tendencies and developments of food access and consumption patterns.

The thesis started with a review of literature on (urban) food security, food system[40] research and two important transitions within the food system; which accumulated into a conceptual model that provides the framework in which the study is embedded. This model helped to identify characteristics of the food retail environment and of the households that promote or hinder food access. These variables are discussed on the base of 3 major conclusions of this research: Traditional retail remains of vital importance, modern retail options are few and have little effect on most households and socio-economic factors are main determinants of food security in this study.

[40] Referred to as "food retail environment" in other chapters of the thesis

7.2 Importance of traditional retail for food security

While modern food retail is developing in Kampala, as demonstrated in chapter 5 and 6, traditional food retail activities continue to play an important role for all participants of this study; traditional retailers seem to be able to satisfy the specific food needs of the majority of (poor) urban households. Traditional food retail offers a large number of outlets throughout greater Kampala. The number of outlets and their proximity to households, in contrast to modern retail, ensure that traditional food retail remains strong (Neven & Reardon, 2004). Their locality is not only important for households who lack transport or money for transport; even more affluent households seem to frequent traditional outlets for "fill-in" shopping trips. Thus, buying products close to home at the traditional market or neighborhood shops, continues to be the case for consumers in both neighborhoods.

Besides their favorable geography, traditional outlets are also more attractive to many households due to the type and quantities of food sold. The study found that traditional retail offers more advantages than supermarkets when it comes to fresh food. Moreover, food is sold in small quantities which increases accessibility for the poorest families. And even though households spend more in total when buying small quantities compared to buying food in bulk, this characteristic of traditional retail seems vital for poorer households (of Soweto).

In addition, the study found that the traditional food sector constitutes of a network of relations, practices and 'rules of the game' (referred to as informal institutions in chapter 2) that are more effective in reaching *all* consumers than those of modern retail: Accessibility, familiarity, and social ties and capital are important factors, which encourage consumers to shop in small shops and the traditional market: The study demonstrated in chapter 6 that essential features of traditional food retail for a household's food access are informal agreements and interpersonal trust; building relationships with particular vendors seems common practice within traditional retail. In addition, the study showed that the poorer households from Soweto regularly buy (borrow) food on credit. This feature of traditional retail is also important for the higher income households in case of financial shortcomings like a delay in salary payment. Moreover, the relationship between customer and vendor is mutually beneficial. Data revealed that some households support their trusted vendor financially to ensure an ongoing relationship.

Lastly, traditional food retail seems to adjust to socio-economic circumstances. In periods of economic hardship, a decline in purchasing power or lack of employment opportunities in the formal sector seems to stimulate the development of the traditional food sector as this provides employment and income to households in difficulty; The study showed that especially uneducated females with little capital and skills benefit from employment in the traditional food sector.

In conclusion, the reach and the benefits that traditional retail offers for households should be

considered in food security efforts that target urban populations. Moreover, the informal income generating opportunities that traditional food retail provides should be recognized and supported by the local government.

7.3 Implications of emerging modern food retail for urban consumers

Even though the food retail environment is visibly changing with the emergence of modern food retail outlets, in Kampala this has not reached the scale as in other SSA-countries (Crush & Frayne, 2011b). Modern food outlets are still relatively small in numbers and scope.

However, despite their limited reach, large supermarkets in Kampala do seem to enhance food access of *some* households to an extend[41]. Families that have the financial resources to purchase staple foods in bulk tend to spend less money compared to buying the same products in smaller quantities from traditional retailers. In addition, research suggests that when supermarkets get more consolidated and effective supply chains, prices decline further.

Thus, if Kampala follows the trend as observed in Southern African countries (Crush & Frayne, 2011b) where supermarkets spread out towards poor urban areas and have lower prices due to economies of scale and efficiency of their supply chain, there could be potential for improved food access of poorer households as well. However, this potential does not solely depend on simply bringing supermarkets closer and improving physical access; accessibility of food from modern retail hinges primarily on household's disposable income. Without improvement of (formal) employment opportunities and reliable incomes, modern retail would still be out of reach for most urban dwellers.

On the other side of the same coin, modern retail seems to have adverse effects to people's food security. Although not particularly addressed in this study, modernization of food retail, changing demographics and other economic related factors are leading to greater access to processed, fattier, unhealthier foods (Stuckler et al., 2012; Kearny, 2010 These products are not limited to modern retail and are to some extend accessible in traditional retail. However, it is argued that the growth of modern retail partly fuels the consumption of these products; thus presenting a concern for achieving food security goals

Moreover, a common criticism of the emergence of supermarkets globally is that they have negative effects on food availability for the urban poor, driving smaller stores and local markets out of business and encouraging greater dependence of poor households on these large retail outlets for food (Reardon & Hopkins, 2006). However, this study shows that for now this does not yet apply to the food retail environment of Kampala. Modern and traditional food retail seem to serve their own purpose.

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[41] Based on data from the survey of a very small number of respondents that prefer supermarkets, and information obtained through FGDs

In short, the emergence of modern food retail in Kampala may not be of immediate relevance for the urban poor in this study; large chains are unlikely to establish supermarkets near slums or poor residential areas in the near future. And even if physical access would improve, supermarkets would probably be still out of reach for the poorest households if they lack transport or financial resources to purchase in bulk. Thus, although the new market opportunities that supermarkets present deserve attention, policymakers should make efforts in improving traditional systems that will continue to serve the majority of the urban population. Moreover, an assumption of the presence of modern food retail improving food security seems to simplify the relationship between poverty, coping strategies, and modern and traditional food systems.

7.4 Socio-economic factors as determinants for food security

This thesis demonstrates that the levels of food insecurity are quite high in Namuwongo and Soweto in particular with almost 60% of all households surveyed classifying as food insecure. Not all households are equally affected; most households in Muyenga are better off. The survey showed that households respond to a lack of food by regulating their food consumption patterns through eating less and smaller meals, going to sleep hungry or relying on borrowing of food. These practices translate into low levels of dietary diversity.

The most prominent constrains for household's food security are socio-economic factors and the affordability of food. An affordability issue for poorer households in Namuwongo, whether purchasing raw or processed foods, is that they usually lack financial resources and means of transport to buy large quantities (bulk buying) and thus commonly have to buy daily from outlets near their homes. Purchasing in small quantities in this way leads to higher costs in sum.

In addition, the logistic regression that was used to predict food security also demonstrates that socio-economic factors like household size, neighbourhood of residence and house ownership are determinants. All the while, the access of non-purchased food seems to contribute little to a households food security. This means that food access is primarily determined by the ability to earn money. Thus, the role of income earned through employment is critical to improving food security. Finding employment to provide a regular income is a major challenge for many households in Kampala.

The importance of food purchase and financial resources for food security found in this study, resonates in literature on urban food security. The dependency of food access on purchasing implies that the efficiency of the food system and the way food is distributed within the city is of critical importance. Therefore, efforts to improve food security should focus on creating (better) employment opportunities, facilitate the distribution of affordable food products and creating possibilities of non-commercial access to food.

7.5 Suggestions for future research

Following the findings from this research study, a few suggestions for future research have emerged. While Namuwongo is mere a case study, this thesis has provided food for thought with regards to the position of consumers and their access to food within a modernizing food system. A multi-dimensional approach is argued to be necessary in order to capture the complexities and dynamics of food needs and choices. Although an in-depth analysis of retailers in the food system and their role in the rise of emerging markets is beyond the scope of this thesis; findings of the study suggest that modern retail has potential in the urban environment of Uganda. However, to fully understand the viability of modern retail for all urban consumers research should also consider the institutional framework in which modern retail is embedded. Moreover, research has to consider benefits and losses from the development of modern retail of all actors in the value chain, such as suppliers and other retailers. An assessment of all components of the food system is necessary, which includes the recognition of the interconnectedness of urban and rural areas.

Moreover, this research suggests the importance of qualitative data on food access and food choices and preferences. Initially, the study was primarily build on quantitative data to discover general trends of consumer behavior and food access of households in the study area. However, during the process of data collection it was found that people's motives and ideas were left undiscovered. Along these lines, there seems to be a need of a culturally sensitive measurement of food preferences related to food access, which could serve for more appropriate responses to food and nutrition insecurity. By capturing people's preferences in a manner tangible by policymakers, and using these to discuss how people themselves make sense of their food consumption, could allow for context-appropriate responses to food insecurity issues.

Furthermore, the thesis showed that within Kampala poor people and more affluent people live in close proximity. This poses a threat to the visibility of food security issues for authorities and policymakers. In addition, appropriate criteria need to be developed that take into account the influence of different food consumption patterns of households on food security.

Finally, Chapter 3 briefly outlined previous and current policies adapted in Uganda to address food security issues. Their focus and solution has been and still largely is: Simply produce more food, more efficiently. However, this thesis and other literature (Crush & Frayne, 2010) shows that urban food (in) security is not reducible to a problem of food production and food availability.

7.6 Limitations of the study

Time and financial constraints have posited various limitation to this study. Firstly, it was decided to do a case study of two neighborhoods adjacent to each other. It would have been interesting to compare the data of this case study to data obtained from neighborhoods closer to a large supermarket, to be able to make assertions on physical access and the importance of location for modern retail. Moreover, a larger and more representative sample of Kampala residents would allow for broader assertions about household access to food.

Further, due to time constraints decisions had to be made on which tools to use. As a result, several limitations to this study are posed hereby. Especially the use of the HFIAS-scale as a measurement tool for food access brings along a few restrictions. However, as food security is a multidimensional complex concept without an appropriate single measurement tool; it was beyond the scope of this study to fully capture the food security levels of households in Namuwongo. It seems nevertheless important to discuss the limitations experienced.

Firstly, the HFIAS-scale uses the household as the unit of analysis in this study. However, as Pinstrup-Andersen (2009) informs, household food access does not always translate to access for all members of a household. Therefore, future research should look into intra-household food distribution and the food access of individuals in order to fully comprehend ways in which food access can be improved at a more micro-level. Among the factors for consideration would be the manner in which the different household members access purchased food outside the house. And how the coping strategies of skipping meals or eating less food are used among different household members.

Secondly, the HFIAS scale as a measurement of food access in this study not only poses a limitation through the use of the household as a unit of analysis, it also limits findings by providing merely a snapshot in time of a household's food access. The tool covers the experience of food insecurity situations of 30 days, leaving out seasonality trends and time specific occurrences (food price fluctuations, loss of employment etc.) of food insecurity.

Thirdly, the study found that generally a Ugandan diet is not specifically nutritious; however, data on nutritional value of the food that is consumed was not obtained. This means that although a participant may consider their household food secure, it may be that household members are undernourished. Moreover, the study showed that food consumption is also culturally constructed; households may have food to eat but this may be something that is not considered as appropriate. In both cases food may be available but household members would still be considered food insecure but the definition of food security (FAO, 1996) outlined in chapter 2

Lastly, another dimension of food security that is not treated in this thesis is the utilization of

food. For instance, observations in Soweto discovered that cooking practices of many household are often suboptimal. A particular observation showed that a survey participant was preparing food on a small charcoal stove with human feces laying just a few meters away. Such lack of hygiene may compromise people's health and the utilization of food, which in turn, affects people's food security.

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Appendices

Appendix A: Household Survey

Survey number:	Date:
Address:	Type of residence:

Dear respondent,

This survey is undertaken in light of a study considering food access and food consumer behaviour *i*n Kampala. You have been asked to participate because you are a resident of Namuwongo. We kindly request for the person who is responsible for decisions on food purchasing to answer the questions in this questionnaire. The findings will be used for my master's thesis, and to get a better understanding of your experiences and priorities (regarding food consumption). The survey will take approximately 15 minutes of your time and all information will be handled with complete confidentiality and anonymity. I highly appreciate your cooperation!

- Do you have any questions before we start? Please don't hesitate to ask them, you are welcome to interrupt me during the interview.

Kind regards,

Lindy Greftenhuis

Master student Utrecht University

Introduction

1. Gender: male/female

2. What is your role in the household?

   Head of the household

   Spouse of the head of the household

   Son/daughter to the head of the household

   Other relative

   Non-relative

3. For how many people do you buy food?_____

4. How many meals does every member of the household consume every day (usually)?

Number:_____

And which ones?:

Breakfast
Lunch
Dinner
Other:

5. How many of those meals are prepared at home?

Number:_____

And which ones?_____

6. If any of the meals are not prepared at home, where are they purchased?

_____

_____

Food purchase

7. Do you grow your own food as a household?

Yes / No

If yes what foods?_____

_____

8. Do you receive food transfers? If yes then please indicate from who? (circle any that apply)

from family / friends / neighbors / kin in rural areas / food aid programme

9. Where do you usually buy your food? Please indicate all sources you use to purchase food

Traditional market/open air market

Which one(s)? _____

_____

What do you buy there?(please name products that you usually buy at such markets)

_____

_____

Hawkers

What do you buy there?_____

_____

Mini-markets/stalls

What do you buy there?_____

_____

Supermarkets

Which one(s)?_____

_____

What do you buy there?_____

_____

Other_____

_____

Where do you prefer to buy your food? (which type of aforementioned food outlets)

_____

_____

10. Why do you prefer to buy your food at this location? Please indicate the three most important reasons:

1 Quality of the food____ 2 Location of the outlet (proximity)____ 3 Hygiene standards___

4 Relationship with the retailer____ 5 Accessibility with vehicle____ 6 One stop shop____

7 Food prices___ 8 Availability of certain types of food____ 9 Other_____

11. For you, what are the main problems in getting the foods you need?

Cost of Food ____Time for shopping ____Distance to the shop ____Quality of food

____Safety _____Other (please specify)_____

12. How do you usually get to food outlets?

Taxi_____ Boda Boda_____ Own Motorcycle_____ Car_____ On foot____

Other_____

Please reflect on the following statements with a scale of 1 to 5.

1 = I disagree completely

2 = I slightly disagree

3 = I don't agree or disagree

4 = I slightly agree

5 = I agree completely

I prefer to buy my food at local markets than at supermarkets

1 2 3 4 5

The quality of food is better at supermarkets

1 2 3 4 5

Supermarkets are more expensive than local markets

1 2 3 4 5

If I have enough money I buy my food at supermarkets

1 2 3 4 5

Food security

1.In the past four weeks, did you worry that your household would not have enough food?

If yes how often?

0 = Never

1 = Rarely (once or twice in the past four weeks)

2 = Sometimes (three to ten times in the past four weeks)

3 = Often (more than ten times in the past four weeks)

If no go to question 2

2. In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?

0 1 2 3

3. In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?

0 1 2 3

4. In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?

0 1 2 3

5. In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?

0 1 2 3

6. In the past four weeks, did you or any household member have to eat fewer meals in a day because there was not enough food?

0 1 2 3

7. In the past four weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?

0 1 2 3

8. In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?

0 1 2 3

9. In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?

0 1 2 3

Demographics

14. Including yourself, how many people live in your household?

_____

15. How much money do you have to spend on food weekly?

_____

16. What is your highest education level?

_____

17. Is this house

Rented/ owned / other:_____

18. Does your household own (a) vehicle(s)? Number

No____ Yes_____

19. How many members of the family are employed?

Self-employed____

Formal____

Informal_____

20. Does your family have an income from an enterprise(s)?

Yes/no

21. Are you employed at the moment?

Yes/no

- Do you have anything to add to the issues raised in this survey or any other comments?

- If you would like to receive a copy of the results of this survey, please enter your email address here: _____
- If you would be willing to take part in a brief interview to discuss these issues further, fill in your complete telephone number here: _____

Appendix B: Vendors survey

Survey nr:_____

Type of shop_____ Location_____

Type of food sold	Prices
._____	._____
._____	._____
._____	._____
._____	._____
._____	._____
._____	._____
._____	._____
._____	._____

Gender retailer: Male/Female

How long have you been selling food?

How long have you been selling food at ……..?

Can you tell me something about this market place?

Since when does it exist?

What factors attracted you to locate your business at this location?

Do you pay taxes for selling your food here?

Do you get food safety/hygiene checks?

(In case of a market) Is there a market manager, and if so what is his role? To what extend do you have control over your stall?

Why did you choose to become a retailer/sell food? Please explain

From where and whom do you obtain the food that you sell?

How do you determine the price of your commodities?

Do you face problems in selling your food? Which ones?

What could, in your opinion be improved to make your business/income more stable?

How do you deal with rising food prices?

Do you feel competition in the food retail environment?

Do you get regular costumers? Costumers that come more often?

Do you get costumers that buy in bulk?

Can you identify purchasing strategies that your costumers have?

Do some people buy on credit?

Do you sometimes lend food to people?

Why do you think they choose to buy food from your shop??

What do you think should change in food retail in Kampala to ensure that people can have enough food?

Appendix c: Description of HFIAS-scale outcomes

Household Food Insecurity Access Prevalence

The final indicator is a categorical indicator of Food Insecurity Status. The Household Food Insecurity Access Prevalence (HFIAP) Status indicator can be used to report household food insecurity (access) prevalence and make geographic targeting decisions. The change in HFIAP can also be tabulated. For instance, if 60 percent of households are severely food insecure (access) at baseline and only 30 percent are severely food insecure (access) at the end of the program, the prevalence of household food insecurity (access) would have decreased by 30 percentage points (or by 50 percent). Because the average HFIAS score is a continuous variable, it is more sensitive to capturing smaller increments of changes over time than the HFIAP indicator. Therefore, the HFIAP indicator should be reported in addition to, rather than instead of, the average HFIAS Score for program monitoring and evaluation.

The HFIAP indicator categorizes households into four levels of household food insecurity (access): food secure, and mild, moderately and severely food insecure. Households are categorized as increasingly food insecure as they respond affirmatively to more severe conditions and/or experience those conditions more frequently.

A food secure household experiences none of the food insecurity (access) conditions, or just experiences worry, but rarely. A mildly food insecure (access) household worries about not having enough food sometimes or often, and/or is unable to eat preferred foods, and/or eats a more monotonous diet than desired and/or some foods considered undesirable, but only rarely. But it does not cut back on quantity nor experience any of three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating). A moderately food insecure household sacrifices quality more frequently, by eating a monotonous diet or undesirable foods sometimes or often, and/or has started to cut back on quantity by reducing the size of meals or number of meals, rarely or sometimes. But it does not experience any of the three most severe conditions. A severely food insecure household has graduated to cutting back on meal size or number of meals often, and/or experiences any of the three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating), even as infrequently as rarely. In other words, any household that experiences one of these three conditions even once in the last four weeks (30 days) is considered severely food insecure.

Source: Coates et al., (2007)