THE LOCATIONAL ANALYSIS OF FOOD RETAIL OUTLETS IN NAIROBI CITY, KENYA

BY

FRANCIS JOLLY BEJUNA BEEMANYA

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This thesis is my original work and has not been presented for a degree in any other University.

B E E M A N Y A F. J. B.

This thesis has been submitted for examination with our approval as University Supervisors.

Dr. H. Gsanger

Dr. K. L. Sharma

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A B S T R A C T

Since its inception, the Nairobi population growth rate has been high, between 6% and 8% per annum. By the years 1985 and 2000, the City population is expected to reach a mark of one and two million inhabitants respectively.

Most of the foodstuffs in Kenya are handled, marketed and some distributed by parastatal bodies like Kenya Meat Commission, the Horticultural Cooperative Union, Kenya Creameries Cooperative, and Maize Produce and Marketing Board. Though these boards hold exclusive responsibility of distributing food products mainly in Urban areas, Nairobi consumers complain about food shortages, poor quality food products, and high prices.

There is scant information about food marketing system in Nairobi. The little that there is, is based on horticultural products at the only Wakulima Wholesale Market which handles 58% of the fruit and vegetables consumed each year. There is virtually no information on the food retail sector. Unfortunately, the neglected retail sector is part of the overall food marketing chain which could hamper the economic development of any country if not properly developed.

This study endeavours to reveal the locational food marketing system in the city. To fulfil this objective, field studies were carried out between April and June 1977 covering 21 City locations.

Personal interviews were conducted with a sample of food retailers at three operational levels and consumers. Secondary data on nine identified retail outlet types depicting their distribution and densities in various socio-economic locations and zones as of 1976/77 were compiled and their development into 1985 projected. The outline account of the outlet registration procedures, marketing system and channels is given.

To determine the various retailers' procurement activities and costs, their sources of food supply, frequencies of food purchase, modes of transport and transport costs are dealt with in depth. The same parameters above are utilized to determine consumers' procurement activities and costs. Retailers' margins and consumers' monthly food expenditures are analysed. In addition, information on retailers' and consumers' constraints, complaints and assistance required is noted.

After the analysis of both primary and secondary data, the general consensus reveals that the Nairobi food retail marketing system is inefficient. The system lacks vertical and horizontal coordination which has led to unnecessarily high procurement costs to both retailers and consumers especially in low-income locations. About 60% of the Nairobi population resides in low-income areas and are served by numerous small scale traditional outlets operating in poor sanitary conditions. Their frequent low volume food purchases have led to increased procurement costs, high food

prices, hindered improvement in food qualities and expansion of retail premises. The ambulatory vendors who significantly play a great role in conveying food-stuffs to most Nairobi consumers are stumbling blocks to any efforts to improve food qualities. Through established modern public retail markets, the City food retail outlet planners seem to have failed to take in consideration the locational population growth rates as demonstrated by the heavy infiltration of ambulatory vendors in old estates. The established modern retail markets have failed as sources of food-stuffs to consumers due to poor structural plans of the markets and lack of an effective method to control the unscruplous ambulatory vendors. Generally consumers find their residential outlets inconvinient, inadequate regarding product ranges offered and food prices high.

The study concludes that the development of improved retail markets and provision of external aid to small scale operators (i.e. kiosk-retailers and ambulatory vendors) in most low-income locations should have top-priority. Establishment of wholesale/retail outlet units in City outskirts should be encouraged if the retail vertical and horizontal coordination is to be boosted.

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CHAPTER 1

THE IMPORTANCE AND PURPOSE OF THE STUDY

1.1. Introduction

Presently the Nairobi population, which is composed of diverse ethnic groups (i.e. Africans, Europeans, Americans, Asians and Arabs.) with different socio-economic characteristics, is passing through a critical stage characterized by a reportedly annual growth rate between 6-8 per cent (24). The rapid population growth and diverse consumer socio-economic characteristics demand that sufficient foodstuffs be delivered at convenient locations, the right time, consistent prices for the various consumer income levels and in form (quality and quantity) acceptable to consumers. An efficient retailing system, in order for the above to be realised, must exist in the City.

An efficient, planned and coordinated retailing system is not only important to consumers through reduced prices and variety of food products offered by retailers but also to increasing farmers' incomes through their increased production. Surplus production leads to expansion of food processing industries within the country. Economic contributions by an efficient food retailing system could include:-

(i) increasing investment into the agricultural sector as more high quality food products can be channelled to expanding urban populations.

(ii) holding down food prices thus conserving consumer resources which could be invested in other essential programmes.

(iii) offering employment opportunities to the population which would not have otherwise been employed in other sectors that in most cases require academic qualifications and specific skills.

(iv) stimulation of investments into transportation system, storage facilities, coordinated retail and wholesale markets all aiming at reducing food perishability, wastages, spoilage and ironing out localized food surpluses and deficits.

In a nutshell, sufficient food products, increased agricultural labour force productivity, investment into the agricultural sector and sound price policies affecting all market participants can only be achieved through a reliable and coordinated marketing system of which the retailing activities form a significant part.

It is noted that the high Nairobi City population growth rate will inevitably lead to the expansion of food retail outlets in future. This is mainly so because:-

(i) retail outlets will be called upon to serve the population influx into the city and be extended to new housing estates now mushrooming in different socio-economic districts of Nairobi.

(ii) the rate of city unemployment will increase, forcing the government policies of providing

employment and equitable income distribution to turn to the food marketing systems. Needless to say, the Nairobi City Council will have to expand its retail markets to ease unemployment in the City, earn revenue and improve the food retail systems.

(iii) the growth of the low-income population (earning less than Ksh.700.00 per month) is higher than that of the other recognised income groups (i.e. medium Ksh.700.00 - 2499.00 and high income earning Ksh.2500.00 plus). This means that the average food purchasing power will decline. As a result, small scale retail outlet units rather than the large modern, which depend on high sale turnovers, are bound to grow at a faster rate. Consequently, the scrutiny of the City food retailing system in general and the informal sector in particular is more than urgently needed. Predominantly small-scale operators and weak vertical coordination of the food marketing system could result in traders' procurement costs being unnecessarily high especially in low-income regions of the City.

In the light of the above observations, this study attempts to find out whether the locational patterns of the Nairobi food outlets are favourable from a consumer's point of view or not. Poor public transport coupled with uncoordinated planning of food outlets in various socio-economic regions of the City could lead to high procurement costs for urban consu-

mers especially for low-income consumers that claim a large percentage of the City population.

Rudimentary information on food marketing system exists and little is known about food retailing in particular.

From this study, first hand information regarding the present structural patterns of food retailing in Nairobi, the distribution and density of food retail outlets, physical flow of goods and services, procurement activities and costs of both traders and consumers, and the expansion of food retailing in Nairobi will be documented, shortcomings of the system analysed and suggestions made on how they can be alleviated to ensure adequate food supply at least cost in a rapidly growing city.

1.2. OBJECTIVES OF THE STUDY

In order to assess the food retail system and its compatibility with the consumers it serves, the following objectives formed the backbone of the study:-

1.2.1. To find out and define various types of food retail outlets in different socio-economic districts of the City.

1.2.2. To determine the density of each type of food outlet in each of these socio-economic districts.

1.2.3. To find out whether the present locational food retailing structure is compatible with the prevailing socio-economic characteristics of consumers in various regions of the City.

1.2.4. To determine the physical flow of goods and services within Nairobi.

1.2.5. To determine the procurement activities and costs to both food retailers and consumers.

1.2.6. To determine whether the expansion of Nairobi food retail outlets is coping with the growth of the Nairobi City.

1.3. HYPOTHESES TO BE TESTED

There will be an attempt to test the following hypotheses:-

1.3.1. That the density of food retail outlets in each district depends on its prevailing socio-economic characteristics.

1.3.2. That procurement costs of food retailers in low-income areas are higher than those in high income districts.

1.3.3. That procurement costs of consumers in low-income districts are higher than those of medium and high-income consumers.

1.3.4. That locational convenience is the most important determinant for shopping at various food retail outlets.

1.3.5. That public food retail markets are more appropriate as food retail outlet for the low-income consumers than grocery shops and self-service stores.

1.3.6. That food distribution system cannot cope with the growth of the city without external help.

1.3.7. That in absence of planning for food outlets

in new housing estates, the competitiveness of spontaneously emerging wholesale and retail outlets tends to be low.

1.4. LITERATURE REVIEW

Urban food retailing has been neglected by researchers in developing countries and its importance to the economic development of these countries has been underestimated by Economists and Economic Planners.

In Kenya in particular, studies conducted by Maritim, Holstein, Zettelmayer, Lorenzl and Quik try to get the insight into fruit and vegetable marketing system at wholesale level in Nairobi. Though they report the increase in ambulatory vendors (hawkers) and a large percentage of fruit and vegetables (42%) which by-pass Wakulima Wholesale Market, their investigations do not explain why the latter is so nor do they pin-point the shortcomings of the prevailing food marketing system in toto. (21, 27, 28 and 45). The food retailing level still remains unlooked into. Technical papers E 23 and CA 2 (30 and 44) describe the locational distribution of retail and wholesale activities in shopping centres in and outside the City centre. The two papers stop on retail establishments, number of employees, and value of sales for each district only. Alvis and Temu (3) in their analysis of the marketing of selected staple foodstuffs in Kenya, 1966, mention in passing the place of markets in the market process in Nairobi. They observed that

the City Council had in 1966, 7 formal retail markets and 1 wholesale market dealing mainly in fruit and vegetables with strong emphasis on potatoes, maize and its related products, bananas, cabbages, "sukuma wiki' (i.e. green cabbage leaves) and beans. Like other researchers on urban food marketing system, they do not mention other food retail outlets (traditional food markets and retail outlets), which in fact are the main source of foodstuffs to the Nairobi population. Despite failure to do this, they observed that from time to time groups of Kiosks were constructed from non-descript bits and pieces of wood, cardboard boxes and tin on the fringes of these residential areas. Though they do not put forward reasons as to why these Kiosks were continuously being constructed despite the City Council demolition of them, seem to suggest that possibly the licenced formal markets and other food outlets, not mentioned, were not meeting consumers' food requirements and/or the vertical coordination of food marketing in various districts of Nairobi City is poor, thus giving chance to these Kiosks to thrive and owners continuously take risks of building more. The fact that these Kiosks were being constructed in residential areas, tends to suggest that possibly the aspect of planning of food outlets in new housing estates is not usually considered before hand. As Alvis and Temu point out that even Westlands public market was constructed to countervail the unlicenced

Kiosks and hawking, which had sprung up, charging high prices and yet offering poor quality food products under unsanitary conditions to consumers. It should be noted that since Alvis and Temu findings, its ten years ago and since then Nairobi population has more than doubled and to cater for this explosive population growth rate, a lot of housing estates have been constructed and inevitably the food marketing system is required to cover this population and new residential areas.

Because of lack of information on present food retailing in Nairobi one fails to pin-point the causes of occassionally reported food shortages which Kenya considers to be produced in abundancy, complaints and overcharging cases in various regions of Nairobi. Different schools of thought note that like industrial marketing, agricultural marketing renders itself to similar marketing technologies, regulations and policies like production, distribution,pricing and promotion. However, stringent control and coordination of agricultural marketing activities are essential since this sector is prone to high dependence on unpredictable natural factors, product perishability and low value bulky products. They point out that excessive control and lack of the thorough assessment of the system tends to hinder the development of an efficient agricultural marketing system. (4, pp.171 - 217, 20, pp. 313 - 360 and 40). Heyer (20), Schimidt and

Mbugua (40) contend that the misleading agricultural marketing policies existing in Kenya are due to their formulation on the basis of logistics rather than broader aspects of the system. As a result, monopolistic marketing boards have been formed with excessive price controls that are not flexible. The research findings in various Latin America Cities and elsewhere, stress the need for a sound evaluation of marketing systems before institutions concerned formulate policies and regulations affecting the system (9, 10, 11, 38, 39, 41 and 42).

Research done in Bolivia, Brazil, Colombia and Puerto Rico Cities emphasise that high procurement costs have negative effect on rates of investment in other productive purposes, adoption of new technologies at farm level and within marketing channels. Consequently, consumers tend to derive their livelihood from poor nutritive foods. The overall effect of poor and uncoordinated food retailing is the lowering of standards of living and retardation of economic growth of the country in general (38, 39, 41 and 42).

Some economists relegate most aspects of marketing to a secondary and adoptive role rather than an active or leading role. But Holton (22) disputes this and observed that if market channels were less tortuous and costly to navigate, more goods (foods) might flow in them.

Collins and Holton (5, pp. 123 - 124) point out that distribution can play an active role in economic

development by changing demand and cost functions in both agriculture and manufacturing in a way favourable to expansion. This would work towards increased food production and satisfying food demands of the country's population in general, and urban consumers' demand in particular, at reduced costs. But they assert that the distribution sector may not respond to market incentives if grading systems, standard weights and measures, adequate legal code covering contract rights and obligations, market information, credit sources and managerial resources are lacking. Lack of these tend to increase risks and hinder innovations by market participants.

Reed Moyer also asserts the role of marketing in the country's development. He is of the opinion that marketing institutions can lower consumer costs by improving distribution efficiency through technological innovations and less spoilage, reduce transaction and exchange costs between producers (sellers) and consumers, and increase the elasticities of supply and demand making available new or improved products which buyers may find desirable (32, pp 7 - 19).

The first FAO training centre on the marketing of staple food crops in Africa held in Nairobi (12 p.3) expressed concern over the lack of attention given by governments to marketing of locally produced foodstuffs in general and staple food products in particular. In view of the economic development now

taking place in African countries and the rapid growth of urban populations, the centre expected the internal marketing of foodstuffs to become the central problem which, unless solved, would seriously hamper economic development.

No specific research has been undertaken in Nairobi City to delineate the retail marketing system linking retailers and consumers. The structure, efficiency of the system and what marketing system to serve the consumers, is determined by the consumers' behaviour and decisions on what foodstuffs, when, where, how much and how frequently food purchases are made (7). Studies carried out in various Latin American Cities and elsewhere, indicate that consumer purchasing and expenditure patterns are important factors in forecasting the appropriate food retailing system and formulating efficient improvement programmes. (10, 33, 38, 39, 41 and 42). Mellor (29 pp 57 - 59) also noted that the consumers' propensity to consume, which depends on changes in incomes, can be used to project future food demands. The neglected retail marketing system which is part of the overall food marketing chain has been stressed as a factor hampering economic development. The inclusion of consumer findings in this study, therefore, is in realisation of the important role consumers play in the determination of an efficient food retailing system.

1.5. THE SCOPE OF THE STUDY

The wholesale food marketing system, estimates of floor-spaces and cost-benefit analysis of each retail outlet are outside the scope of this study.

CHAPTER 2

METHODOLOGY AND ORGANISATION OF THE STUDY

2.1. DATA SOUGHT

This study is based on two types of data namely primary and secondary data.

Secondary data were mainly collected from records of the Nairobi City Council Departments which included Retail Outlets Licensing Office, Urban Study Office and Central Bureau of Statistics, and other relevant literature.

Primary data were obtained through surveys. The relevant respondents:- hawkers, kiosk-retailers, grocers and consumers were interviewed to obtain information pertaining to the theme of the study regarding their source of supply, procurement activities, problems involved and convenience of these outlets to the consumers.

The personal interviews were carried out instead of other field survey methods because of the following factors:-

(a) the low percentage of refusals;

(b) the need for versatility and flexibility;

(c) the very limited research budget;

(d) the author had received comprehensive training in market research in interviewing methods and was well aware of the pitfalls such as bias.

The primary data collection, during the months of April to June 1977, was divided into three parts and interviews were conducted by three enumerators. A male enumerator fully conversant with both English and Kiswahili, dealt with hawker and kiosk-retailers' questionnaires while a female, with the same qualifications, conducted consumer questionnaires. In both cases the use and knowledge of Swahili proved useful as most hawkers, kiosk-retailers and consumers interviewed knew little or no English. The author conducted grocer-questionnaires.

A female enumerator was favoured to conduct consumer interviews on two grounds:-

(i) most household purchases are made by housewives who would feel at home with a female interviewer and, with little difficulty and patience, answer most if not all of the questions being asked. (Though in most cases they did not or did not want to reveal details about their husbands' incomes).

(ii) to avoid suspicions from heads of households (mainly men) on finding males interviewing their daughters or wives.

Where the retail outlets were found to be more or less than the recorded units in a particular location, the extra were listed under that location. Hawkers were counted in each case starting from 11 a.m. This time was considered the best for the "count" since most hawkers are out selling their products in anti-

cipation of lunch time food purchasers. Analysis of data was mainly by cross tabulation.

2.2. QUESTIONNAIRES

Three sets of questionnaires - Hawker-Kiosk, general Trader (grocers) and consumer questionnaires were used. The first two were designed to obtain the following information:-

(i) sources of supply, procurement activities and costs to hawkers, kiosk-owners and grocers.

(ii) the general background on retailers regarding their age, level of education, initial capital and problems, pre-retailing occupations, commencement of business, initial assistance they required and present assistance they require, their relationship with each other as retailers and with their customers, sizes of their premises and equipment etc....

(iii) major problems retailers face in their various locations and suggestions on how to alleviate them.

The consumer questionnaire was designed to establish the link between food retailers and consumers, convenience of location retail outlets to their customers, determine the shopping basket share on their incomes and assess consumer complaints regarding food supply and retailers; and desired improvements in the area.

The draft questionnaires were pre-tested for their suitability, clarity and simplicity to respondents outside areas that were to be covered by the study.

After the pretest stage in pilot areas (Nairobi South C, Kariokor and Dagoretti Corner) in March 1977, the ambiguous and long questions were streamlined and made clear, simple and short and yet obtain the precise required information from respondents. Final questionnaires are contained in Appendix II (i), (ii) and (iii).

2.3. SAMPLE AREAS AND SAMPLE SIZE SELECTION

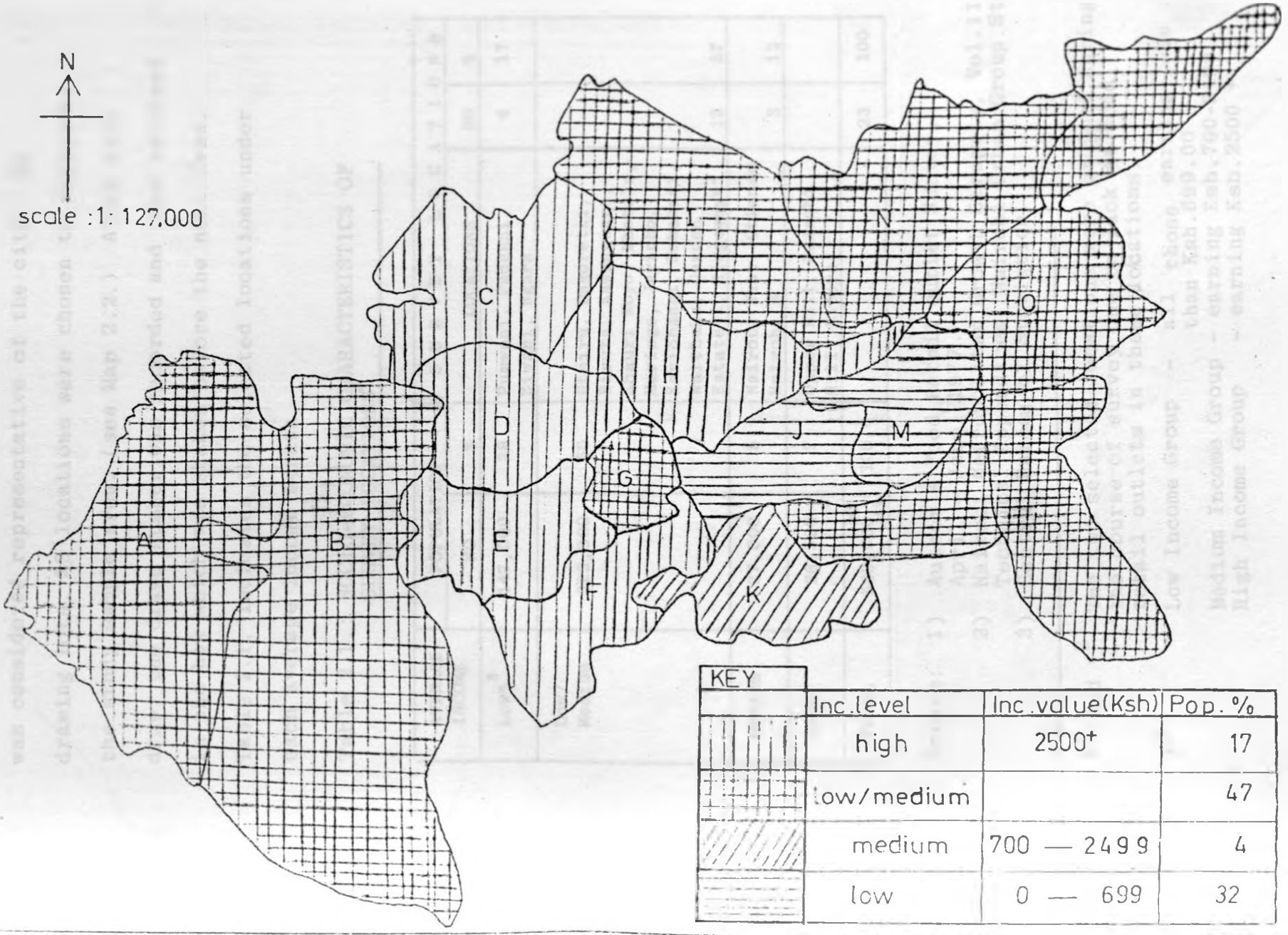
SAMPLE AREAS

The scope of the study militated choosing sample areas representative of the whole Nairobi Area. The heterogenous features of the whole area put to task the author and his supervisor which areas to be selected and using what method.

Areas estimated to have similar socio-economic characteristics were grouped together and zones demarcated on the basis of their average income (see Map 2.1). Though population and ground area were considered in zoning the city, this proved a worthless exercise due to different geographical factors and historical background of the locations which did not conform to the socio-economic characteristics of the areas.

In all, 15 zones named from "A" through to "P" were demarcated as indicated in Map 2.1. All locations (i.e. administrative units falling under the jurisdiction of a Chief) in the demarcated zones

Map 2.1 Nairobi areas by zones and average incomes, 1977.



KEY	Inc.level	Inc.value(Ksh)	Pop. %
	high	2500+	17
	low/medium		47
	medium	700 — 2499	4
	low	0 — 699	32

were listed down and given a number. The total number of locations was 71 and a 30% sample size was considered representative of the city. By drawing lots, 23 locations were chosen to represent the study sample area. (see Map 2.2.) After each draw, the drawn number was recorded and then returned in the box which was shaken before the next draw. Table 2.1. indicates the selected locations under each average income strata.

Table 2.1.: SOCIO-ECONOMIC CHARACTERISTICS OF SURVEY LOCATIONS

AVERAGE INCOME	POPULATION		SURVEY LOCATIONS		
	NO	%	LOCATIONS	NO	%
Low*[3]	147,000	28	Pumwani, Pangani, Ziwani, Ngara	4	17
Low/ Medium	323,300	60	Uthiru, Dagoretti, Riruta, Kawangware, Shauri Moyo, Mbotela, Maringo, Jericho, Kariobangi, Embakasi, Waithaka, Garden Estate*[1], Ridgeway*[2]	13	57
Medium	27,000	5	Nairobi West, Otiende Nairobi B	3	13
High	36,500	7	Upper Hill, Nairobi Hill, Kibera		
TOTAL	533,800	100.0		23	100

Source: 1) Author's Food Retail outlet Survey, April - June, 1977.
2) Nairobi Metropolitan Growth Stragety, Vol.II, Technical Appendices, Nairobi Urban Group Study
3) Central Bureau of Statistics.

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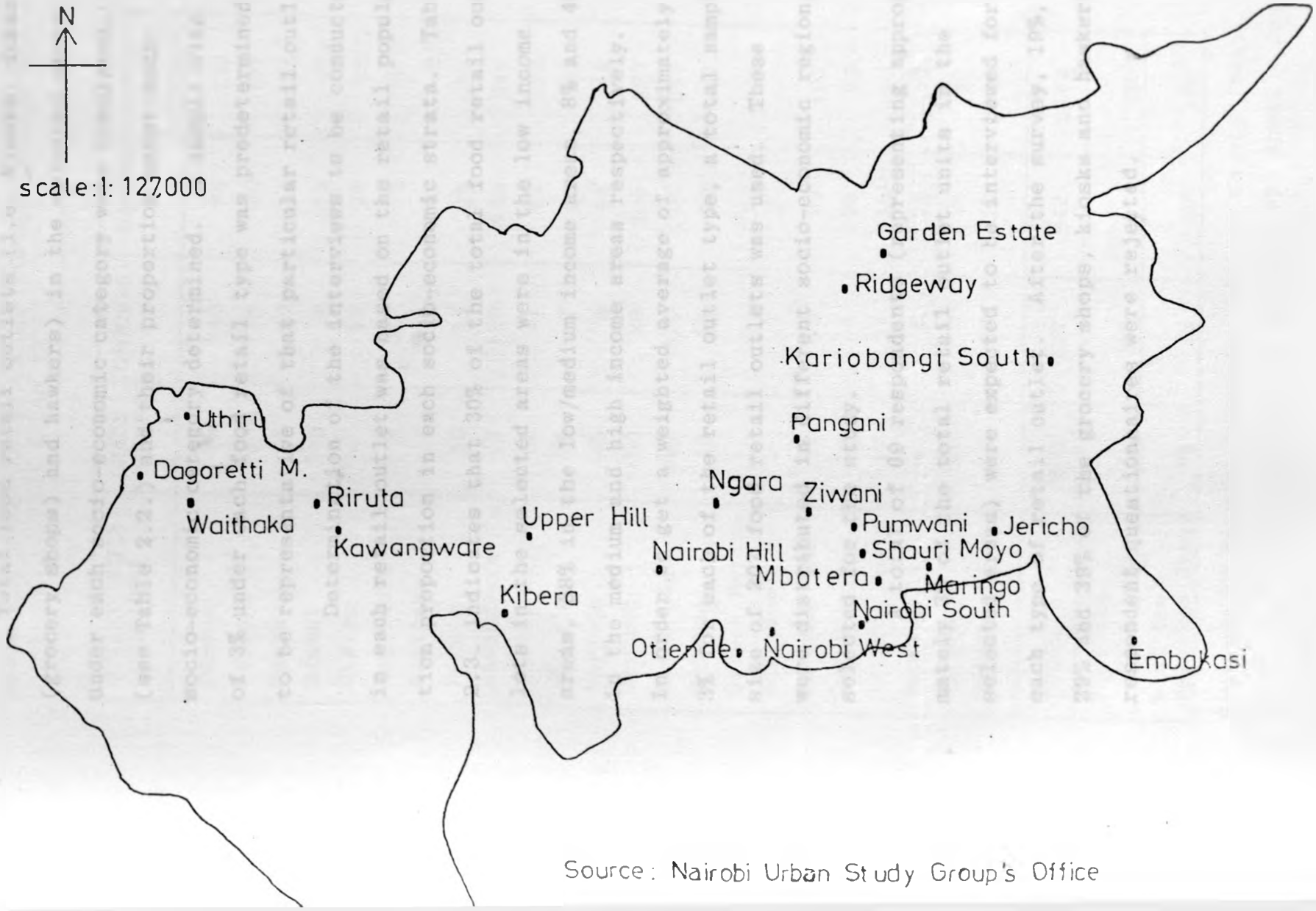
*[1] and *[2] The two selected locations were dropped during the course of survey due to lack of food retail outlets in these locations.

*[3] Low Income Group - all those earning less than Ksh.699.00
Medium Income Group - earning Ksh.700-2499
High Income Group - earning Ksh.2500 +

Map 2.2 Field survey locations, (April – June, 1977)



Source : Nairobi Urban Study Group's Office

SAMPLE SIZE AND SELECTION

(i) FOOD RETAIL OUTLET UNITS (KIOSKS, DUKAS AND HAWKERS)

Total food retail outlets (i.e. Kiosks, dukas (grocery shops) and hawkers) in the selected areas under each socio-economic category were tabulated. (see Table 2.2.) and their proportion under each socio-economic category determined. A sample size of 3% under each food retail type was predetermined to be representative of that particular retail outlet.

Determination of the interviews to be conducted in each retail outlet was based on the retail population proportion in each socio-economic strata. Table 2.3. indicates that 30% of the total food retail outlets in the selected areas were in the low income areas, 58% in the low/medium income areas, 8% and 4% in the medium and high income areas respectively. In order to get a weighted average of approximately 3% for each of the retail outlet type, a total sample size of 207 food retail outlets was used. These were distributed in different socio-economic regions selected for the study.

A total of 69 respondents (representing approximately 3% of the total retail outlet units in the selected areas) were expected to be interviewed for each type of retail outlet. After the survey, 19%, 29% and 39% of the grocery shops, kiosks and hawkers respondent questionnaires were rejected.

Table 2.2 FOOD OUTLET UNITS (POPULATION) IN THE SURVEY AREAS 1977

OUTLET UNITS LOCATIONS	GREEN GROCERS	GROCERS	HAWKERS	TOTAL OUTLET UNITS
Pumwani	79	148	96	323
Pangani	31	76	90	197
Ngara	55	57	74	186
Ziwani	3	7	12	22
Uthiru	-	14	21	35
Dagoretti	6	71	4	81
Waithaka	4	4	-	8
Riruta	12	14	22	34
Kawangware	7	116	124	247
Shauri Moyo	96	41	41	178
Mbotela	16	7	29	52
Maringo	45	9	61	115
Jericho	150	29	108	287
Kariobangi	101	110	58	269
Embakasi	10	15	72	97
Garden Estate	-	-	-	-
Ridgeway	-	-	-	-
Nairobi West	20	42	39	101
Otiende	2	4	29	35
Nairobi South B	17	27	15	59
Upper Hill	-	5	28	33
Kibera	18	3	4	25
Nairobi Hill	11	18	15	44
TOTAL	683	817	942	2442
% of the city Areas	41	38	41	29
% of the selected Areas	28	33	39	100

Sources: 1) Nairobi Licensing Office, County Hall, 1976/77
2) Author's Food Retail Survey, April - June, 1977

Table 2.3. FOOD RETAIL OUTLET SAMPLE SIZE BY SOCIO-ECONOMIC GROUPS

AVERAGE INCOME	FOOD RETAIL OUTLETS		NO. OF RESPONDENTS PER TYPE OF RETAIL OUTLET
	NUMBER	%	
Low	728	30	12
Low/ Medium	1417	58	39
Medium	195	8	9
High	102	4	9
TOTAL	2442	100	69

Source: Author's Food Retail Survey, April-June, 1977

Absence of grocers from their shops and hence failure of shop attendants to answer questions on transport and fixed costs, sources of supply and frequency of food products purchases, was the main reason for the grocery shop rejects. On the other hand hawkers'and kiosk-retailers' gross exaggerations/underestimates of their sale turnovers and transport costs per month led to the high reject percentages.

Table 2.4 indicates the survey questionnaire breakdown by type of respondents.

(ii) CONSUMERS

A sample size of 100 consumers was considered, appropriate within limits of time and research budget, to cover the subsidiary part of this study. Supplementary data was expected from the survey of consumers in Nairobi carried out by the Central Bureau of

Statistics officials but unfortunately at the time of compilation of this study their results had not yet come in.

Table 2.4.: SURVEY QUESTIONNAIRE BREAKDOWN BY RESPONDENTS, 1977

RESPONDENTS	EXPECTED	REJECTS	ANALYSED QUESTIONNAIRES	REJECTS AS % OF EXPECTED
Grocers	69	13	56	18.8
Kiosk-Retailers	69	20	49	28.9
Hawkers	69	27	42	39.1
TOTAL	207	60	147	29.0

Source: Author's Food Retail Outlet Survey, April - June, 1977

The breakdown of consumer questionnaires is indicated in Table 2.5. The low income locations claimed a 18% of the consumer questionnaires, the low/medium, medium and high income areas received a respective 59%, 14% and 9% share of the total consumer questionnaires. On average, from each location,

Table 2.5.: CONSUMER QUESTIONNAIRE-BREAKDOWN BY SOCIO-ECONOMIC GROUPS

AVERAGE INCOME	EXPECTED	REJECTS	REJECTS AS % OF EXPECTED	ANALYSED
Low	21	6	5.7	15
Low/ Medium	68	15	14.3	53
Medium	16	4	3.8	12
High	10	3	2.9	7
TOTAL	115	28	26.7	87

Source: Author's Food Retail outlet survey, April - June, 1977.

5 consumers were interviewed to assess their purchasing patterns and behaviour, their food expenditures and convenience of the retail outlets in their locations.

2.4. PROBLEMS ENCOUNTERED

The field survey was conducted during the long rain months from April to June 1977. Locations under study especially those in low-income strata were nearly impassable and therefore physical count of less permanent retail outlets was painfully carried out sometimes wading through one foot deep mud. Dagoretti, Kawangware and Kariobangi fall under this category. The poor waste and refuse disposal on one hand and poor sanitary conditions on the other, did not make the study that easy either.

Businessmen have a long term fear of researchers or any other person putting questions to them whose expected answers tend to reveal their daily business activities. In a City where robbery cases are numerous, City Council askaris harass illegal ambulatory vendors and some few individuals own a chain of retail outlets, their tendency to be reluctant to answer questions was expected. Few retailers admitted to own business in other locations; most were sensitive when asked as to how much cash sales they make daily; and most consumers refused to reveal their family incomes. Among retailers the hesitation in answering questions was marked in hawkers though, after explaining as to who we are, they responded to questions without reservations.

Most grocery-owners had workers selling in their shops. Since workers were not conversant with the historical background of the business and owners, the author had to revisit the shops on Sundays when owners could be interviewed. Except in one case, where the owner was a high-placed government official, grocers answered all questions though they tended to inflate their expenses and downplay their returns.

CHAPTER 3

NAIROBI CITY FOOD RETAIL MARKETING SYSTEM, 1976/77

3.1 FOOD RETAIL OUTLETS DEFINED

In the course of the field survey, nine major types of food retail outlets were identified within the Nairobi City.

(i) General grocery Shops (including "grocery kiosks")

(ii) Green grocery (including "green-grocery-kiosks") shops

(iii) Butcheries and fishmongeries

(iv) Bakeries

(v) Self-service Stores

(vi) Dairy stores

(vii) Icecream bars

(viii) Market stalls (formal City Council and informal markets)

(ix) Hawkers (ambulatory vendors or informal traders).

None of the above retail outlets is purely specialized in the sale of one particular food commodity neither are they equal in size. An attempt has been made, however, to define the outlets on the basis of their structure and the main food commodity sold in that particular outlet. In all they are over 8000 recorded food retail outlets and their frequency distribution is indicated in the following table.

Table 3.1.: FREQUENCY DISTRIBUTION OF FOOD RETAIL OUTLET UNITS IN NAIROBI, 1976/77

FOOD OUTLETS	NUMBER	PERCENT
General Grocery Shops	2103	24.7
Greengrocery Shops	1680	19.8
Butcheries & Fish-mongeries	267	3.1
Bakeries	115	1.4
Self-service stores	41	0.5
Dairy stores	20	0.2
Icecream bars	20	0.2
Market Food Stalls	1950	22.9
Recorded Hawkers*	2305	27.1
TOTAL	8501	100.0

Sources: 1) City Council Food Retail Licensing Office, County Hall, 1976

2) Author's Food Retail outlet survey, April - June, 1977

(i) General Grocery Shops (Dukas)

These are small or medium permanently built premises where relatively durable, prepacked and processed foodstuffs are sold on personal basis. The main foodstuffs sold include cereal products, fats and oils, beverages (mainly soft drinks), dry beans and pulses, bread and confectioneries on a small scale, onions, tomatoes, eggs, fresh beans, peas and irish potatoes are sold.

* These are by far too low - see tables 4.6 p. 60 and 4.8 p. 70

The shops assume a wide range of sizes ranging from 20 sq.metres to over 300 sq. metres (see Appendix III (i)) with above KShs.30,000/- (average) worth of equipment and holding an average stock of over Ksh.50,000/-. In most cases grocery shops have two divisions:- the first division is an area where the exchange of commodities take place - the shop, and the second where extra commodities are stored (the store).

As shown in Table 3.1., there are over 2100 grocery shop units in the whole of Nairobi most of which are concentrated in low-income zones of A,B,J,L and O. (Tables 3.6., p.48 and 3.8. p.52). These shop units claim 24.7% of the total city food retail units.

(ii) Greengrocery shops

These are small or medium sized premises where fruit and vegetables are sold on personal basis at retail level.

There are over 1600 greengrocery units most of which are "greengrocery-kiosks" (see below for definition) and claiming the fourth position after hawkers, grocery shops and food market stalls.

"GROCERY- AND GREENGROCERY- KIOSKS"

Though Nairobi City Licensing Office lists Kiosks under general grocery shops and greengrocery shops and are included in the first two food retail outlets in table 3.1., there is a difference between the two kiosks and the respective shops.

According to Alvis and Temu (3, p.5), Kiosks are food outlets constructed from non-descript bits and pieces of wood, temporary and can be demolished by the City Council Authorities with no compensation benefits to the Kiosk owners. General grocery and Greengrocery shops, however, are permanently built premises which are recognised by the City Council authorities as legitimate. There are many types of Kiosks in the City, for instance food and tea kiosks which are miniatures of hotels for low-income individuals. To differentiate the grocery and greengrocery- Kiosks from other types of Kiosks, "grocery kiosks" will be taken to be temporary premises, in most cases made out of wood, where relatively durable processed and prepacked foodstuffs are sold to consumers who, in turn eat or cook the product outside the Kiosks. The "greengrocery-kiosks" are temporary premises where fruits and vegetables are sold to consumers.

They are more fruit and vegetable kiosks than greengrocery shops in the City. This is so because of the many individuals involved in the sale (hawkers and market food stall retailers) and purchase (consumers) of the fruit and vegetables. In addition, fruit and vegetables are generally highly perishable and as such bought in small quantities. Consumers find it more economical and technically convenient to purchase these products from kiosks, hawkers and market stalls near their residential areas other than from greengrocery shops, which may be ten minutes walk from their

residences. For that matter, greengrocery shops are on the decline or have orientated themselves to act as sources of supply to hawkers and kiosks.

(iii) Hawkers (ambulatory vendors)

Hawkers are informal traders with no premises in which to sell their commodities. Though in some cases in Nairobi City, they are licensed to operate in specific areas, they are ever-on-the move in and outside the specified areas.

Hawkers sell all types of food products and other commodities that are usually found in normal households. They sell products ranging from books, records, cooked food, flowers, curios, pictures and drawings; and cigarettes to matches and towels. (see section 3.4).

In Nairobi City, there are two types of hawker licences:- the loose-leaf type licence for static hawkers and the book-type licence for moving hawkers. The former category of hawkers are licenced to sell food (mainly fruit and vegetables, mixed vegetables, gruel and food, tea, coffee, bread, butter, biscuits and mineral waters) or non-food products (e.g. flowers, drawings and curios) in a defined area. The latter are individuals licenced to sell food or non-food products in a defined area(s). They carry their products from place to place, house to house and even at times from office to office on their backs, heads, bicycles or handcarts. Both types of hawkers carry a badge for their identification to the City Council askaris (guards).

The hawkers differ from kiosk-retailers (grocery- and greengrocery- sellers) in that they sell their products in open spaces normally within the residential states or popular City routes frequented by most customers in particular areas.

A large number of low-income people are employed in this outlet. In 1976/77, the recorded hawkers alone claimed more than 27% of the total City food-retail outlets.

(iv) Butcheries and Fishmongeries

They operate from small to medium permanently built outlets involved in the sale of meat mainly beef, pork, dressed chicken, mutton and to a small extent fish.

Individual butchers who have both butchery and meat roasting licences, must wear white overcoats and maintain proper storage and water facilities.

There are 267 (3.1% of the total food retail outlet units) butcheries in Nairobi City most of which are concentrated in low income zones of A, B, J and L (see Table 3.6. p. 48 and 3.8 p.52)

(v) Bakeries

They are food outlets where bread and confectioneries are baked for sale at wholesale or retail level. Owners of bakeries hold both bakery and manufacturing/packing licences.

Bakeries represent 1.4% of the total food retail outlet units in Nairobi.

(vi) Self-Service Stores

These are defined as stores where the major part of products is presented for free selection by the client without intervention of store employees and where payment is effected in cash registers. Self-Service sales, purchases and administration are directed by only one enterprise or owner. Each store has a sales area (140 sq.metres) a refrigeration and storage area (42 square metres) and a self-service operations (mechanised) section (11 p. 82-84).

Presently, 1977, there are about 41 self-service stores in Nairobi mainly in City Centre and high income zone E.

(vii) and (viii) Ice Cream Bars and Dairy Stores

These small or medium permanently built outlets sell ice cream and dairy products usually in the same premises. They are mainly found in the City Centre and high income areas like Westlands, and Woodley shopping centres. There are 40 ice cream and daily outlets in the whole of the City; both accounting for 0.5% of the total retail units.

(ix) Markets (formal and informal markets)

These are temporary or permanently built enclosed or open places where various types of products such as fruit and vegetables; durable processed and prepacked foodstuffs; clothes, live chicken (in Kariokor Market), furniture and household utensils are sold. Services like bicycle, watch, shoe and stove repairs are also offered.

There are over 20 retail markets with a total of 5097 stalls/pitches of which 38.3% sell foodstuffs. The survey revealed two main retail market categories, namely formal and informal as illustrated below.

Table 3.2. THE RELATIVE IMPORTANCE OF FORMAL AND INFORMAL NAIROBI RETAIL MARKETS TO NAIROBI FOOD CONSUMERS, 1976/77

Market Type / % Distribution	Formal Retail Markets	Informal Retail Markets	All Retail Markets
Total Stalls/pitches	4034	1063	5097
% Total Stalls	79.1	20.9	100.0
% Empty Stalls	51.7	0.8	41.1
% Non-food Stalls	19.0	27.0	20.6
% Food Stalls	29.3	72.2	38.3

Source: 1) Author's Food Retail outlet Survey, April - June, 1977

(i) Formal Markets:

This category includes 1 wholesale market, 5 permanent (roofed) retail and 7 temporary (enclosed open air) markets.

The stalls/pitches vary in sizes but range from about 4 to 12 square metres. The rents paid for these stalls/pitches depend on stall sizes, types of commodities sold, type of retail market (temporary or permanent) and the location of the stall/pitch within the market itself. (full details included in table 3.3. below)

The individual stall/pitch occupant in these formal markets is called a tenant since he pays monthly

3,3 DETAILED INFORMATION ON CITY COUNCIL MARKETS, 1976

PENING HRS.	STALL SIZE	RENT (KSHS)	LABOUR	FACILITIES	MAIN SUPPLIERS	MAIN CUSTOMERS	PROBLEMS PREVAILING
a.m.-6 p.m.	12' x 9' 8' x 8' Hotel, Meat,	330 230 480	7	Toilets Water Tap Gates	Wakulima Kawangware K M C	Low-Medium Income Africans Town Wholesalers	1. Lack of Customers High Competition from Eastleigh and Quarry Rd. Markets and Hawkers 2. High Rent Charges
a.m.-6 p.m.	6' x 6'	25	5	Toilets	Wakulima Town Wholesalers	Low Income Africans	1. High Hawker Concentration 2. Lack of Security
a.m.-6 p.m.	Tea Kiosks 8' x 8'	75 25	7	Gates Water tap	Wakulima Town Wholesalers distributors	Low-Medium Income 90% Africans 10% Asians	1. No toilet facilities 2. No Security Askaris 3. Fire risk 4. Congestion for both Tenants and Customers
0-6 p.m.* a.m.-1 p.m.* sed on 12th and 25th.	Upperstairs Corner Food Stalls Middle Food Stalls Down Stairs 12' x 9' 8' x 8' Market Area 12' x 6' 8' x 8' Meat, Fish & Chicken Shops	215 125 405 250 70 50 1980 5050	16	Water Taps Tight Security Gates Electricity Toilets	Wakulima Farmers, K M C Dressed chicken Distributors	High Income Mainly Asians and Europeans	1. Congestion for fresh food sellers 2. Limited Parking Area
a.m.-8p.m.	12' x 9'	230	4	Water Taps Electricity Toilets,	Wakulima	Medium High Inc-Asians	1. Tenant and Customer congestion
a.m.-6 p.m	6' x 9'	25	3	None	Wakulima Town Wholesalers	Low-Income Africans	Fire-risk.
a.m.-6 p.m	Upstairs 12' x 9' Downstairs 12' x 9' 9' x 8' Meat, Fish	130 180 100 310	16	Water Gates Toilets	Wakulima Town Wholesalers Distributors	Low-Medium Income Africans	1. High Hawker competition 2. High rent
a.m.-6 p.m	6' x 9' 12' x 9' (Hotels)	160 200	11	Toilets Water Electricity	Wakulima Town Wholesalers	Low-Medium Income Asians and Africans	None
a.m.-6 p.m	12' x 9' 9' x 6' Meat, Fish Hotel	180 100 300 240	8	Water Electricity Gates	Wakulima K M C Private-butchers	Low- Medium-High Income	Tenant Congestion
a.m.-6 p.m	Upstairs Foodstalls Downstairs	110	13	Water Electricity Gates	Wakulima Town Wholesalers	Low-Medium Income Africans	1. Acute illegal hawker problem 2. Lack of Customers with the market
a.m.-6 p.m	8' x 8' Tea Kiosks	25 75	7	Water Gates	Wakulima Kawangware	Low-Income Africans	1. Underutilized 2. Lack of Customers

thor's Food Retail Outlet survey, April 1 - June, 1977.

Weekdays
Weekends
Kenya Meat Commission
Open air market

rents for the space on which he sells his products.

Within these markets, opening hours are specified, facilities like toilets, water and in some markets electricity provided; security guards, cleaners and sweepers employed by City Council Market Authorities. Each market is under an Assistant Superintendent whose main functions include collection of rents, a watchdog of sanitary conditions and settling petty cases between market tenants and customers.

(ii) Informal Markets:

These include peri-urban fringe (periodic-farmer) markets and residential (Neighbourhood) retail markets. The informal markets (not under City Council Management) are unenclosed places where farmers and "static" hawkers sell food and non-food products. However, these markets can be demolished without notifying the participants.

Peri-urban fringe markets are patronised mainly by farmers who sell surplus food (fruit and vegetables) at specified places and days. Examples include Dagoretti, Kawangware and Uthiru Markets which operate twice a week.

Residential markets on the other hand, are dominated by "static" hawkers at strategic places of residential areas.

(iii) Formal versus Informal Markets:

As seen in Table 3.2 the formal markets account for about 80% of the total market stall units whereas the informal markets claim the remaining 20%.

Regrettably, 51% of the total formal market stalls are empty* and 19% sell non-food products. Consequently, only 29% of the total formal stalls sell food products.

On the other hand, informal markets, despite claiming a small market stall share of 20%, only 0.8% and 27% of the total informal units are empty and sell non-food products respectively. Comparing the two types of food retail markets, the informal markets go a greater length in serving Nairobi population with food products. They are fully utilized as there is less incidence of empty stalls.

On the whole, 41% of the total market stall units are empty, 21% sell non-food products and only 38% sell food products. However, despite their under capacity utilization, the food stalls/pitches under both market categories make up 23% of the total city retail outlet units-thus making the retail markets the third biggest food retail outlet after hawkers and grocery shops in that order (see Table 3.1, p.27).

3.2. NAIROBI RETAIL MARKET SET-UP

Before independence (1963), Colonial Authorities paid no attention to the development of retail markets except those regarded as their main sources of fresh provisions. Only City market (1929), Kariokor and

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* The incidence of empty stalls is high in low-income areas because hawking outside the official markets saves rent. The high proportion of empty stalls in the double storeyed markets (e.g. Joggo Road Market) is both due to high rents and hampered produce flow resulting from specific construction features.

Landhies Road Markets were under the City Council Management at the time of Kenya's independence and they principally catered for European and Asian communities. Other markets per se existed as residential or neighbourhood retail markets-established by poor individuals in search of a living under appalling sanitary conditions (31).

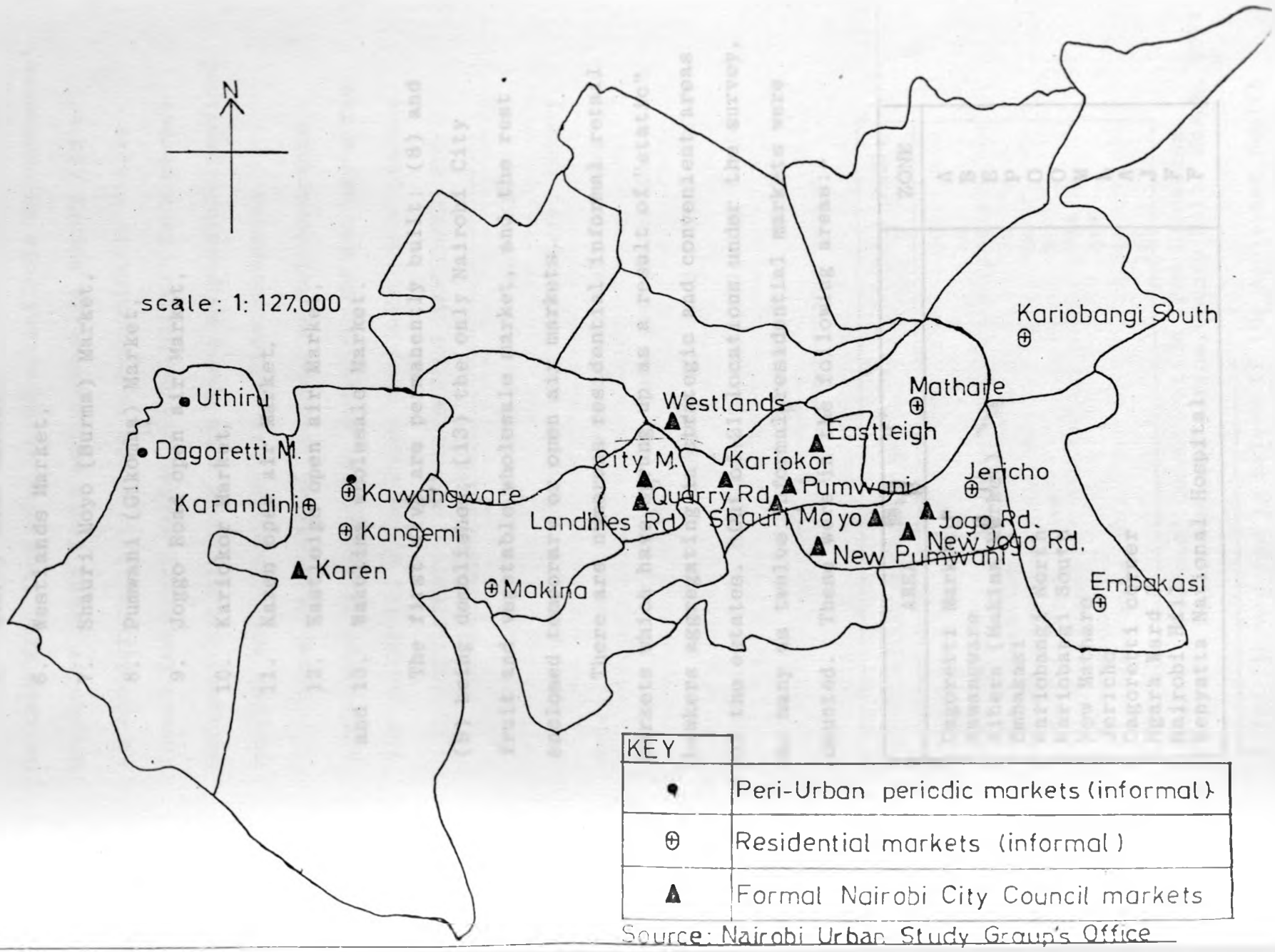
Five years after independece, ten enclosed temporary markets mostly in the Eastlands (see Map 3.1) had been built in addition to the three pre-independence City Council formal markets. By 1975 three of the enclosed temporary markets (i.e. Joggo Road, New Pumwani and Quarry Road markets) were constructed into permanent roofed premises.

Presently 8 more temporary markets are on the City Council Market development file to be established at Kibera (Makina residential market area), Embakasi, Kahawa, Kariobangi North, Kariobangi South, Jericho, Kenyatta National Hospital area and Ngara Ward 7. In all these areas, informal residential markets exist and the City Council market officials will only allocate pitches and provide the usual open air market facilities. Contingent plans are under way to turn Eastleigh open air market into a permanent and roofed market.

In all, there are 13 City Council (formal) markets:-

1. City Market,
2. Landhies Road Market,

MAP 3.1 Nairobi city retail markets, 1976/77



Source: Nairobi Urban Study Group's Office

3. New Joggo Road Market,
4. New Pumwani Market,
5. Quarry Road Market,
6. Westlands Market,
7. Shauri Moyo (Burma) Market,
8. Pumwani (Gikomba) Market,
9. Joggo Road open air Market,
10. Kariokor Market,
11. Karen open air Market,
12. Eastleigh open air Market,

and 13. Wakulima wholesale Market.

The first five are permanently built; (8) and (9) being demolished; (13) the only Nairobi City fruit and vegetable wholesale market, and the rest enclosed temporary or open air markets.

There are numerous residential informal retail markets which have sprung up as a result of "static" hawkers aggregating in strategic and convenient areas of the estates. Out of 21 locations under the survey, as many as twelve informal residential markets were counted. These were in the following areas:-

AREA	ZONE
Dagoretti Market	A
Kawangware	B
Kibera (Makina Market)	E
Embakasi	P
Kariobangi North	O
Kariobangi South	O
New Mathare	M
Jericho	L
Dagoretti corner	A
Ngara Ward 7	J
Nairobi Hill	F
Kenyatta National Hospital	F

These markets (informal) do not exist on record and are not discouraged as far as the City Council Markets Authorities are concerned. Illegal as they are, they play an important role as consumers' source of fresh fruit and vegetables supply and act as indicators as to where an economically viable formal temporary market can be built. Each market occupant can claim as much space as possible provided he does not antagonise his fellow occupants.

Like residential informal market occupants, peri-urban fringe market occupants do not pay a fee for use of the space where they sell their produce.

3.3. REGISTRATION AND LICENSING PROCEDURES FOR RETAIL FOOD TRADERS

Except for ambulatory vendors and market-tenants; grocery, butchery and fishmongery, bakery, dairy, icecream, green grocery and self-service store licence holders follow the same procedures to obtain licence permits. A range of the food retail outlet licence fees is displayed in the following table:

Table 3.4: LICENCE FEES FOR EACH FOOD RETAIL OUTLET, 1976/77

FOOD OUTLET	LICENCE FEE (KSh.)./YEAR
Bakery	40
Dairy	10
Butchery	100
Meat Roasting	75
Fishmongery	50
Self-Service Store	50
Grocery Shops	75*
Greengrocery	40*
Icecream Bars	10
Hawking	160

Source: Personal communication from Licensing Superintendent office, County Hall, March, 1977

* The licence fee is halved if the Assistant Health Inspector deems the business to be small.

A general licence application form obtainable from the Licensing Superitendent's office, (at a cost of Ksh.5) is filled by traders indicating the type, ownership, location and site of the business. It is then passed on to the Chief Health Inspector's office.

The respective location Assistant Health Inspector checks on the suitability of premises, health standards, presence of required facilities, determines the competition and the effects of establishing such a business in that particular location. He then decides whether the applicant should be offered the licence permit. If the application is rejected, he states the reasons for the rejection to both the applicant and the Chief Health Inspector. If on the other hand, the applicant is successful, the licensing superitendent directs the applicant to pay the licence fee before collecting the permit from his office.

Butchery and fishmongery licence permits go hand in hand with meat roasting licences though an individual cannot obtain the latter if he has no butchery. In case the applicant wants to sell, for instance groceries, green-groceries and icecream, he has to fill three separate general licence applications and pay the licence price tagged on each type of food-stuffs he intends to sell.

A hawker licence was introduced to provide a source of income to the aged, uneducated or

widows/widowers with big families and have no alternative sources of income. Due to lack of premises in which to sell their food stuffs, hawkers are not subjected to Health Inspectors scrutiny and regulations. Though hawkers sell fruit and vegetables which require high health standards and delicate handling, they do not fulfil the Health Inspectorate set health standard requirements. To avoid their inevitable disqualification, a body within the licensing Superintendent's Office used to issue hawker licences to any individual they deemed poor (prior 1976). This body was dissolved early 1976 in realization that the licences benefitted the rich who either hired the poor to work for them or used fictitious names or information to get the licences.

Presently two bodies (Licensing Policy Sub-Committee and General Purpose Committee) are responsible for issuing hawker licence permits. The former studies the hawker application and recommends to the latter which then rejects or approves the issue of the permit.

Two types of licences, the book and leaf types, are issued to "moving" and "static" hawkers respectively. In addition to Ksh.5/- general application form fee, a hawker pays Ksh.160/- as a licence fee and Ksh.2/- for a numbered badge which he must show to City Council guards during their routinal checks on illegal hawkers

The following categories of products can be sold on a hawker licence:-

(i) Household utensils, stationery, hand towels, soap, cigarettes and matches,

(ii) Gruel food (Irio) and mixed vegetables,

(iii) Tea, coffee, bread, butter, biscuits, mineral waters, milk (in tetrapack containers from one approved vehicle) and boiled eggs,

(iv) Pork products,

(v) Fruit and vegetables,

(vi) Cloth and Clothes,

(vii) Pictures and drawings,

(viii) Gramophone records,

(ix) Second hand books,

(x) Manuscripts and Curios, and

(xi) Flowers.

The City Council formal retail market tenants do not go through the rigorous licence procedures neither are they answerable to Inspectors' health standards. Health standards in formal markets are the responsibility of the City Council Assistant Market Superintendent, who provides dustbins and employs sweepers and cleaners.

Informal market occupants are supposed to be "static" hawkers. These, therefore, have to follow procedures and channels undergone by hawkers.

3.4. DISTRIBUTION OF FOOD RETAIL OUTLETS IN NAIROBI, 1976/77

According to the Author's count and City Council licenced food retail outlet register for 1976, there are over 8000 food retail units in the Nairobi (see Table 3.6.)*. However, this figure may be an underestimate of the total food retail units because of the following reasons:-

(i) there are many unlicenced ambulatory vendors who do not appear on the official City Council register. Even if one did a 100% count of the hawkers in a specific area, the figure of hawkers will vary each day as most of them operate in more than one area. Again hawkers do not have a set pattern neither specific times as to when they begin and end sale of their products.

(ii) the City Council market stalls are on record while on the other hand residential informal market stalls are not. The number of farmers patronising the peri-urban fringe markets also vary on each selling day. The study did not cover all the areas of Nairobi and as such, residential market stalls in areas not visited are not included in the total market stalls/pitches. But since most of the residential informal markets are mainly in low and medium income areas visited, the "left out" stalls/pitches are not many.

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* For full details on food retail outlet unit distribution by location, refer to Appendix III (ii).

(iii) the total food retail units do not include farmers who sell their produce either directly to consumers or in the peri-urban fringe markets especially in the Western and Northern regions of the City. Considering that they are excess produce sellers who depend on seasons, their average throughout the year is likely to be small.

Despite the above irregularities, the conservative total of between 8,000 and 15,000 food retail units would not be far from the actual total of retail outlets in the whole of Nairobi (see Tables 4.6. p.68 and 4.8. p.70).

Table 3.5 gives a summary of various types of food retail outlets in different socio-economic districts of the City. The density (population catchment per retail outlet unit) of the total units in case of these different socio-economic districts is also indicated in the same table.

Most food retail outlets are scattered in zones J, L and G with 26%, 20% and 14% of the total food retail units respectively. Zones J is also densely populated with low to medium income individuals while zone G is the City commercial centre. The zones with the lowest number of retail outlets are high income (C, D and F) and the Northern fringe-farmer zones (I and N) categorised under low to medium income strata.

Table 3.5 FOOD RETAIL OUTLET UNITS DISTRIBUTION BY ZONES, 1976/1977

ZONES	Average Income	1974 Population	Bakeries	Butcheries	Daily & Icecream shops	Self-Service Stores	Green-Grocers	Grocers	Hawkers	Market Food-stalls	TOTAL UNITS	Location Units as % of total retail units	Population/ unit outlet
A	L/M	32000	2	27	1	-	12	104	25	73	244	2.9	131
B	L/M	52600	1	22	2	-	44	159	153	140	521	6.1	101
C	H	33900	1	2	1	-	5	6	9	-	24	0.3	1413
D	H	14000	-	7	3	1	10	27	49	-	97	1.1	144
E	H	25000	1	4	6	4	35	26	65	300	441	5.2	57
F	H	13500	-	6	3	1	11	18	15	-	54	0.6	250
G	L/M	11500	32	48	9	27	310	496	73	179	1174	13.8	10
H	H	37700	-	17	1	1	98	93	114	82	406	4.8	93
I	L/M	6400	-	1	1	-	3	10	19	-	34	0.4	188
J	L	147000	13	50	1	6	494	659	522	479	2224	26.2	66
K	M	27000	52	13	-	-	104	121	385	-	675	7.9	40
L	L/M	144500	8	43	-	1	422	225	570	402	1672	19.7	86
M	L	86500	1	10	1	-	14	30	148	67	271	3.2	319
N	L/M	8100	-	-	-	-	-	-	1	-	1	-	-
O	L/M	70000	3	15	11	-	108	114	80	156	487	5.7	144
P	L/M	16100	1	2	-	-	10	15	77	72	177	2.1	91
TOTAL		725800	115	267	40	41	1680	2103	2305	1950	8501	100.0	85

Sources: 1. Nairobi City Council Licensing office, County Hall, 1977

2. Nairobi Urban Study Group, Metropolitan Growth Strategy, Vol. II, Technical Appendices.

As indicated in Table 3.6. the low and low/ medium income groups claim mostly small scale units principally dealing in the sale of groceries, fruit and vegetables. The retailers are mainly hawkers, market stall tenants and kiosk-retailers. There is a significant positive correlation between food retail outlet units and population while a negative correlation exists between food retail outlet units and the average income of the location. The higher the population, the lower the average income and the bigger the number of food retail outlets units in a zone.

Most food retail units are located in low to medium income districts zones of J, M, A, B, G, I,L, O, P, and K, (see map 3.1.), where 83% of the total City population lives. The low-medium income zones of A, B, G, L, O and P alone claim 51% of the total units while the low income zones of J and M account for 29%. The high income zones namely C, D, E, F and H with a population of approximately 124,100 (17% the total City population) are served by only 12% of the total food outlets (see Table 3.6.).

Notably, more than 90% greengrocers, 89% hawkers and 80% of the market food stall units are located in the low to medium income areas. The three are mainly food retail outlet units for fruit and vegetables thus stressing that low/medium income

Table 3.6 FOOD RETAIL OUTLET UNITS DISTRIBUTION BY INCOME, 1976/1977

LEVEL OF INCOME	Population 1974	Zones	Bakeries	Butcheries	Dairy & Icecream bars	Self-Service Stores	Green-groceries	Groceries	Hawkers	Market Food-stalls	TOTAL UNITS	% of the total retail units	Population retail units
LOW	233500	J, M	14	60	2	6	508	689	670	546	2495	29.4	94
LOW/MEDIUM	341200	A,B,G, I,L,O, P,N	47	158	24	29	909	1123	998	1022	4310	50.7	79
MEDIUM	27000	K	52	13	-	-	104	121	385	-	675	7.9	40
HIGH	124100	C,D,E, F, H	2	36	14	7	159	170	252	382	1022	12.0	121
TOTAL	725800	C,D,E F, H	115	267	40	42	1680	2103	2305	1950	8502	100.0	85

Sources: 1. Retail Licensing Offices, Nairobi City Council, County Hall, March, 1977

2. Nairobi Urban Study Group: Metropolitan Growth Strategy, Technical Appendices

consumers are by and large fruit and vegetables consumers.

The retail outlet unit population catchment for the low-medium income areas averages about 80 people per retail outlet unit. This is low compared to the high-income of 121 people per retail outlet unit. This means that the low to medium income consumers are adequately supplied by retail outlets.

The specific feature of the Nairobi retail system is the existence of more than 20 retail markets scattered all over the City (in low to medium income areas mainly) which are either formal (operated by Nairobi City Council) or informal (residential and periodic-farmer) markets. The total number of food market stalls exceed 1900 or 38% of the total market stalls (see Table 3.7).

About 77% retail market stalls are located in the low-medium income areas and City Centre region, which includes the old City. The remaining retail market stalls are shared evenly between the low-income Eastern region, and middle to high income Southern and Western regions (11% each of the total market stalls). (See also Map 3.1). For detailed information about the distribution of retail outlet units in different districts of the City refer to Appendices III (ii), (iii), (iv) and (v).

The City is characterised by a very high number of small scale outlets. Table 3.8 illustrates the concentration of various food retail outlets in the 16 zones of the City.

Table 3.7 NAIROBI CITY FORMAL AND INFORMAL RETAIL MARKETS DISTRIBUTION, 1976/77

RETAIL MARKETS	Zone	Income	Foood-stalls Pitches	Non-Food stalls/ Pitches	Empty stalls	Total stalls/ Pitches	Year opened	Type of Market	% Food stalls/ Pitches
City Market	G	L/M	111	14	-	125	1929	NCC	88.8
Easleigh Open Air Market	J	L	271	25	-	295	1964	NCC	91.6
Karen Open Air Market	B	L/M	40	28	19	87	1967	NCC	46.0
Kariokor Market	J	L	58	142	-	200	*	NCC	29.0
Landhies Rd. Market	G	L/M	68	-	-	68	1960	NCC	100.0
Joggo Rd. Market	L	L/M	105	115	230	450	1975	NCC	23.3
Joggo Open Air Market	L	L/M	90	30	980	1100	1964	NCC	8.2
New Pumwani Market	J	L	37	5	2	44	1973	NCC	84.1
Pumwani (Gikomba) O.A.M.	J	L	113	40	720	873	1964	NCC	12.9
Quarry Rd. Market	L	L/M	74	213	6	293	1974	NCC	25.3
Shauri Moyo (Burma) Market	L	L/M	133	142	130	405	+	NCC	32.8
Westlands Market	H	H	82	11	-	93	1968	NCC	88.2
Embakasi	P	L/M	72	-	-	72	n.a.	RM	100.0
Kibera (Makina) Market	E	H	300	160	-	460	n.a	RM	65.2
Kariobangi South Market	O	L/M	156	80	7	243	n.a	RM	64.2
New Mathare	M	L	67	-	-	67	n.a	RM	100.0
Karandini Market	A	L/M	46	14	1	61	n.a	RM	75.4
Kawangware Market	B	L/M	60	12	-	72 c	n.a	RM	83.3
Uthiru Market	A	L/M	27	-	-	27	n.a	PUM	100.0
Kangemi Market	B	L/M	40	21	-	61	n.a	RM	65.6
Kawangware Periodic Mkt	B	L/M	n.a	n.a	n.a	n.a	n.a	PUM	-
Dagoretti Periodic Mkt	A	L/M	n.a	n.a	n.a	n.a	1906	PUM	-
Total			1950	1052	2095	5097			

Sources: 1. Nairobi City Council, Market Section, March, 1977
2. Food Retail Outlet Survey, April - June, 1977

Notes:

NCC = Nairobi City Council Formal Markets
RM = Residential Informal Markets
PUM = Peri-Urban Informal Markets
n.a = Information not available
\- = Zero
OAM = Open Air Market

* Exact year not available but before 1963
\+ Exact year not available but after 1963

Note: Open Air and Residential Markets have more food stalls and less empty ones than permanent markets

Most of the retail units are concentrated in low to medium income zones of J, L and G. The three account for the respective 26%, 20% and 14% of the total City retail outlets. The important outlets in the first two zones are"greengrocery kiosks" (55%), hawkers (47%), food market stalls (45%) and butcheries (35% of the Nairobi units). The bakeries, self- service stores, dairy and icecream bars are of less importance in the two zones. Though these outlets have low sale turnovers and net margins, this rather high density of retail units could guarantee easy shopping at modest costs for consumers. The City Centre which is the commercial centre, has more than 20% of each of the retail food outlets except for hawkers and market food stalls.

In high income and newly developed areas, however, the number of food retail outlet units have not quite kept pace with the fast growing population in these areas. The high income zones of C, D, E, F and H between them claim most of the modern and large outlets like self-selction stores, dairy and icrecream bars. Though zone E claims more than 15% of the City food market stalls, it is noted that these are located in low-income areas like Kibera. Though we tend to get large and modern retail outlets (e.g. grocery shops, bakeries, butcheries and self-service stores), the main fruit and vegetables sources in these areas are ground hawkers. The low-income individuals (such as domestic employees of the high income class) in these areas are uncatered for and consequently their procurement costs are bound to be high.

Table 3.8 RETAIL OUTLET UNITS CONCENTRATION (%) BY ZONES, 1976/77

Retail Outlet / Zones	Bakery	Butcheries	Dairy and Icecream	Self-Service stores	Green-grocers	Grocers	Hawkers	Market Food Stalls	Total Units
A	1.7	10.1	2.5	0.0	0.7	4.9	1.1	3.7	2.9
B	0.9	8.2	5.0	0.0	2.6	7.6	6.6	7.2	6.1
C	0.0	0.7	2.5	0.0	0.3	0.3	0.4	0.0	0.3
D	0.0	2.6	7.5	2.4	0.6	1.3	2.1	0.0	1.1
E	0.9	1.5	15.0	9.8	2.1	1.2	2.8	15.4	5.2
F		2.2	7.5	2.4	0.6	0.9	0.6	0.0	0.6
G	27.8	18.0	22.5	65.9	18.5	23.6	3.2	9.2	13.8
H	0.0	6.4	2.5	2.4	5.8	4.4	4.9	4.2	4.8
I	0.0	0.4	2.5	0.0	0.2	0.1	0.8	0.0	0.4
J	11.3	18.7	2.5	14.6	29.4	31.3	22.6	24.6	26.2
K	45.2	41.2	0.0	0.0	6.2	5.8	16.7	0.0	7.9
L	6.9	16.1	0.0	2.4	25.1	10.7	24.7	20.6	19.7
M	0.9	3.7	2.5	0.0	0.8	1.4	6.4	3.4	3.2
N	0.0	0.0	0.0	0.0	0.0	0.0	0.04	0.0	0.0
O	2.6	5.6	27.5	0.0	6.4	5.4	3.5	8.0	5.7
P	0.9	0.7	0.0	0.0	0.6	0.7	3.3	3.7	2.1
OF THE TOTAL	1.4	3.1	0.5	0.5	19.8	24.7	27.1	22.9	100.0

Source: Author's Food Outlet Survey, April - June, 1977

3.5. GENERAL NAIROBI CITY FOOD SUPPLY AND PHYSICAL FLOW STRUCTURE

This section endeavours to examine the physical flow pattern for fruit and vegetables and groceries to the City retailers and to ultimate consumers.

3.5.1. Fruit and Vegetables

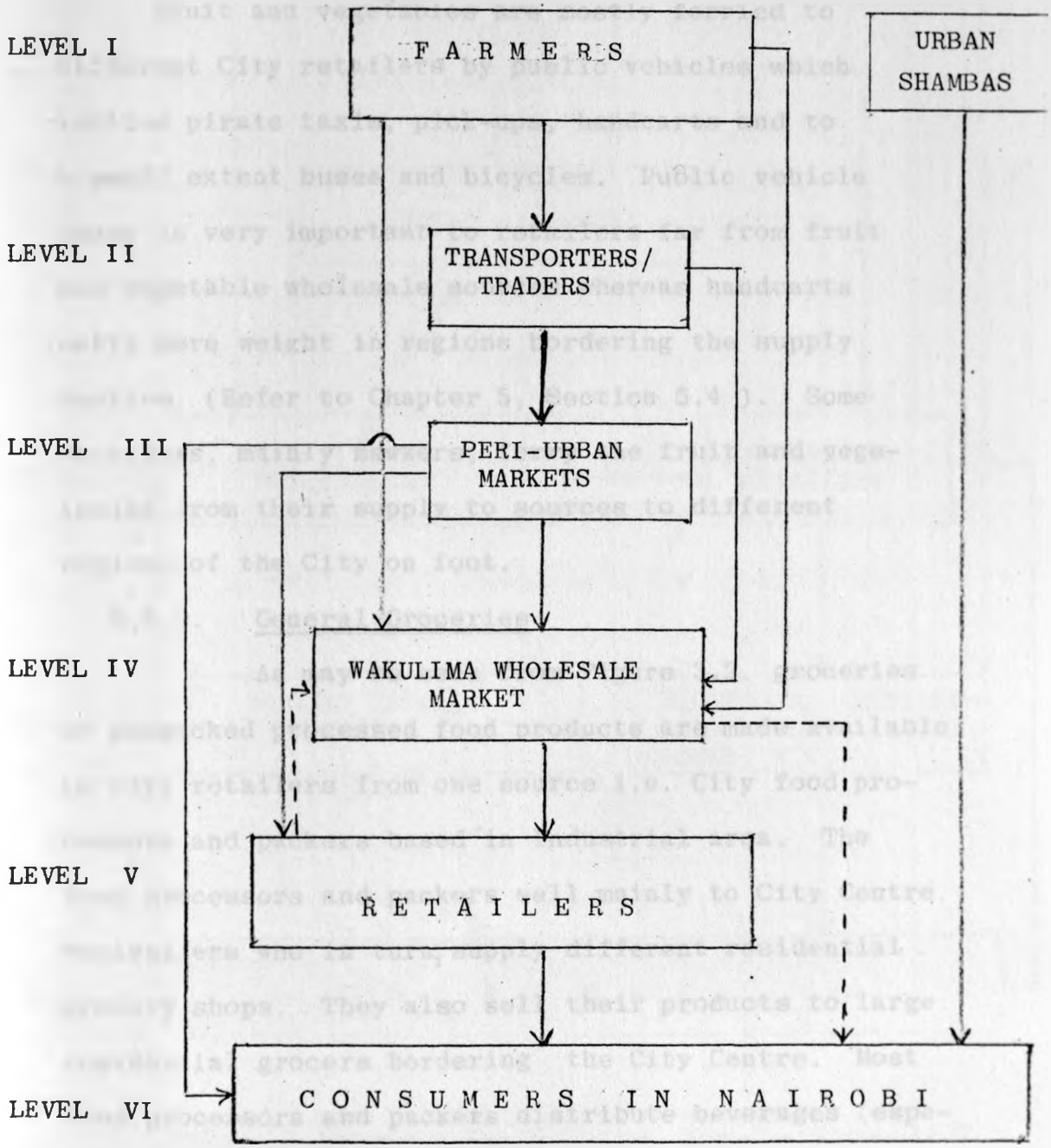
(a) Sources of supply

Nairobi draws its fruit and vegetables from its neighbouring districts of Kiambu, Muranga, Nyeri, Nyandarua, Kajiado, Embu, Machakos, parts of Laikipia districts and from far districts of Nakuru, South Nyanza, Kisii and Coastal districts. Kiambu, Machakos and Nyandarua districts were found (Heinrich, F., 1973, Maritim, 1976, Table 5.2. p. 63) to be the principal fruit and vegetables suppliers to the City through Wakulima Wholesale Market which handles 58% of the total fruit and vegetables consumed in Nairobi. The three districts accounted for more than 65% of the total vehicles that off-loaded their fruit and vegetables in this Wholesale Market. Most of City supplies do come mainly from areas located on both sides of the Nairobi-Karatina road. Till early 1976 and 1977, the City received its dessert bananas from Uganda; mangoes, oranges, cashewnuts and coffee from Tanzania respectively.

(b) Marketing Channels

For the City retailers, Wakulima Wholesale Market remains the single main source of fruit and vegetables. This market handles 58% of the total horticultural produce consumed in Nairobi. The remaining 42% is shared between other wholesalers (at Biashara,

FIGURE 3.1 GENERAL MARKETING CHANNELS FOR FRUIT AND VEGETABLES IN NAIROBI.



---------- illegal marketing channels

Source: Author's Field Survey, April - June, 1977

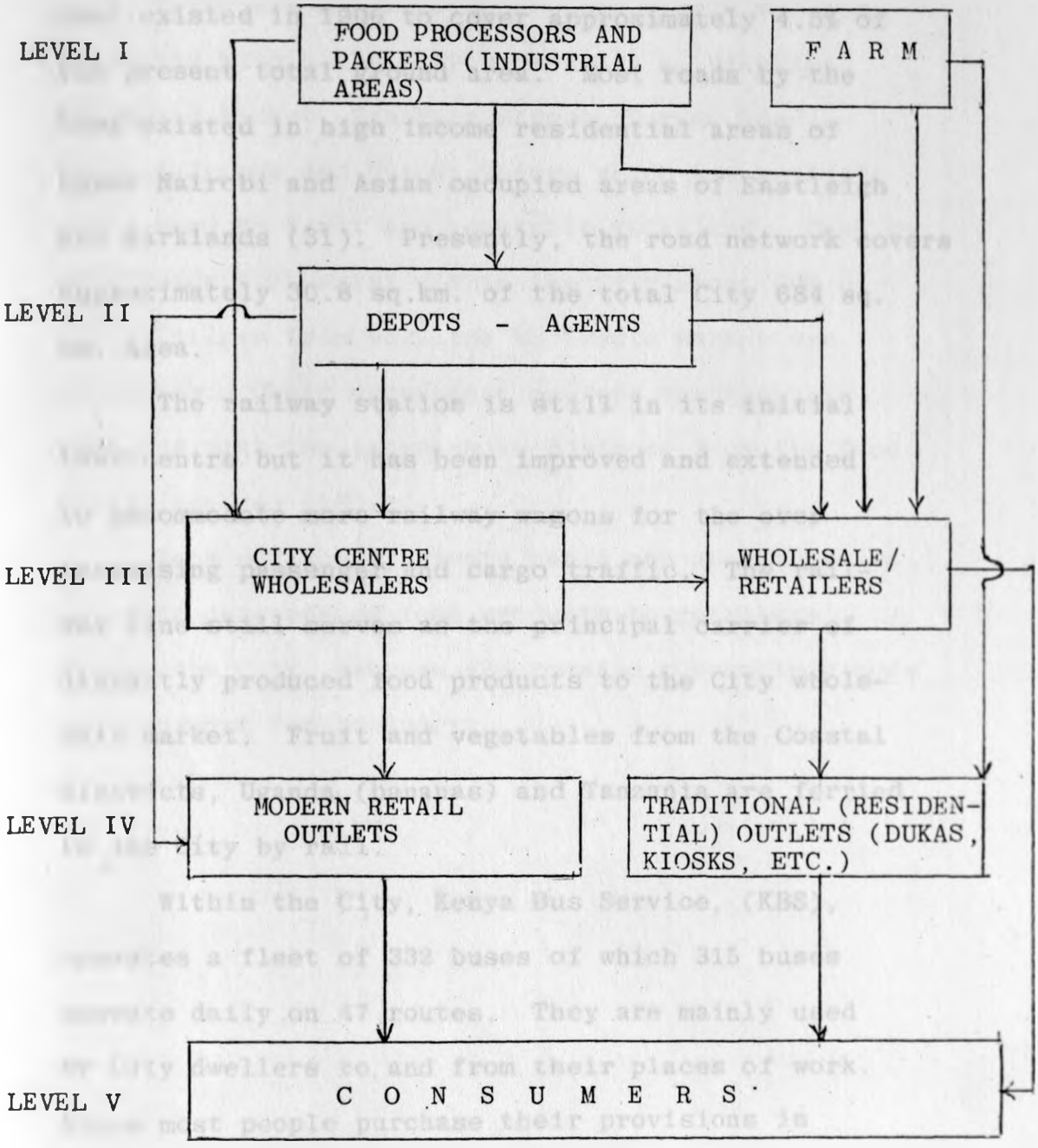
Muindi-Mbingu, Luthuli and Duruma streets) and farmers who sell their excess produce in peri-urban markets of Kawangware, Uthiru and Dagoretti (see Figure 3.1.).

Fruit and vegetables are mostly ferried to different City retailers by public vehicles which include pirate taxis, pick-ups, handcarts and to a small extent buses and bicycles. Public vehicle usage is very important to retailers far from fruit and vegetable wholesale sources whereas handcarts carry more weight in regions bordering the supply centres. (Refer to Chapter 5, Section 5.4). Some retailers, mainly hawkers, ferry the fruit and vegetables from their supply to sources to different regions of the City on foot.

3.5.2. General Groceries

As may be seen from Figure 3.2. groceries or prepacked processed food products are made available to City retailers from one source i.e. City food processors and packers based in Industrial area. The food processors and packers sell mainly to City Centre wholesalers who in turn, supply different residential grocery shops. They also sell their products to large residential grocers bordering the City Centre. Most food processors and packers distribute beverages (especially soft drinks and beers), milk and milk products; bread and confectioneries either directly to residential grocery shops or indirectly through appointed distributing agents.

FIGURE 3.2 GENERAL MARKETING CHANNELS FOR GROCERIES IN NAIROBI.



Source: Author's Field Survey, April - June, 1977

3.6. NAIROBI CITY TRANSPORTATION SYSTEM SET-UP

By 1962, Nairobi City road network had expanded from a mere 26 mile-stretch of weather beaten roads that existed in 1906 to cover approximately 4.5% of the present total ground area. Most roads by the then existed in high income residential areas of Upper Nairobi and Asian occupied areas of Eastleigh and Parklands (31). Presently, the road network covers approximately 30.8 sq.km. of the total City 684 sq. km. area.

The railway station is still in its initial 1889 centre but it has been improved and extended to accommodate more railway wagons for the ever increasing passenger and cargo traffic. The railway line still serves as the principal carrier of distantly produced food products to the City wholesale market. Fruit and vegetables from the Coastal districts, Uganda (bananas) and Tanzania are ferried to the City by rail.

Within the City, Kenya Bus Service, (KBS), operates a fleet of 332 buses of which 315 buses operate daily on 47 routes. They are mainly used by City dwellers to and from their places of work. Since most people purchase their provisions in outlets near their places of work, KBS earns credit for transporting foodstuffs to Nairobi consumers.

Supplementary to KBS public transport, there are numerous pirate taxis and other country-to-City buses. Country buses, are important carriers of food-

stuffs into Nairobi from neighbouring districts of Kiambu, Nyeri, Embu, Nyandarua, Machakos and Nakuru.

There are a lot of double and single wheeled handcarts within the City especially at Wakulima Wholesale Market, Biashara Street, Duruma Road, Luthuli Avenue and Muindi Mbingu which are actively being used by fruit and vegetable retailers. Despite good roads that exist within the City about 60% of the retailers from Wakulima Wholesale Market use handcarts. Their importance as food transporters declines with the increase in distance from the food supply centres (18).

In a nut shell, pirate taxis and handcarts are the main carriers of food products to retailers within the City, whereas KBS remains a principle mode of transport for consumers.

CHAPTER 4

MACRO ANALYSIS OF FOOD RETAIL OUTLETS AND URBAN DEVELOPMENT

4.1 POPULATION GROWTH AND INCOME DISTRIBUTION

4.1.1. Population Growth

As illustrated in the table below, Nairobi City has been experiencing rapid population growth rates.

Table 4.1. AREA AND POPULATION OF NAIROBI, 1906-1985

Year	Population	Rate of increase per annum	Area sq. kms.
1906	11,512	n.a	17.9
1926	29,864	4.6	n.a*2
1936	49,600	5.2	n.a
1956	n.a	n.a	82.9
1962	266,794	6.7	89.6
1963	342,764	28.5*1	684.0
1968	443,500	5.3	684.0
1969	509,000	14.8	684.0
1974	748,800	9.4	684.0
1975	763,000	1.9	684.0
1976	814,000	6.7	684.0
1977	868,000	6.6	684.0
1978	927,000	6.8	684.0
1979	989,000	6.7	n.a
1980	1,048,000	6.0	na.
1981	1,112,000	6.1	n.a
1982	1,179,000	6.0	n.a
1983	1,252,000	6.1	n.a
1984	1,326,000	6.0	n.a
1985	1,396,000	5.3	1,100.0
1906/1985		6.6	

Source: Nairobi Urban Study Group: Nairobi Metropolitan Growth Strategy, Vol. II, Technical Appendices.

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*1 The high population growth was recorded because of the City boundary change in 1962.

*2 n.a = not available.

In 1904 there were only 20 to 30 Europeans, and five years later their number had increased to 1400. In 1906, on the other hand, African population was recorded at 11,300 and by 1936 their number was well over 40,000. Between 1906 and 1926, the Nairobi population growth rate was 4.6% which increased to 5.2% per year between 1926 and 1936. The current population growth rate is between 6 and 8% annually (24, 25, 31, 35 and 43).

Drawing on the works of Gachuche (13 pp. 40-50), Gibbons (15), Corcoran and Tyrell (6 p. 9) as well as data contained in the statistical Abstract (43 p. 31), estimated annual growth of the Urban African population at + 8%, whereas that of Urban Asian and European was given as - 6% per year each. It is projected, that by the turn of this decade, Nairobi population will exceed 1 million people mark (see Table 4.1) and ten years later to have grown to 4.2 million, unless the present trends are checked by successful population distribution policies. Its envisaged that by the end of this century, Nairobi will extend its boundaries to include Small Urban Centres of Thika, Machakos, Athi River, Limuru, Kiambu, Kikuyu and Githunguri which would absorb a population of 2.1 million. With successful distribution policies aimed at increasing the population of small towns in Kenya, however, the Nairobi population can be restricted to 2.8 million instead of 4.2 million people by the year 2000 (35, pp. 18-20).

4.1.2. Income Distribution

Kenya's GDP per capita between 1964 and 1974 increased from Ksh 725.2 to Ksh.940.6 at constant prices over the same period - an increase of nominal 5.9% and 2.7% per year respectively (43 pp. 40-41). Also during the same period the average private consumption per year decreased from Ksh.540.0 to Ksh.477.2 - a reduction of 11.6% (i.e. -1.24% per year). This decrease is attributed to the Government's concentration on subsidizing education and other social services (15, p.3).

Between 1975 to 1985 the city income is expected to increase from million Ksh.286.9 to Ksh.513.8 - an increase of Ksh.226.9 millions, while per capita income is estimated to decrease from Ksh.376 to Ksh.386.1 - a decrease of Ksh.7.9 over the same period. This is an increase of 79% (i.e. 6% per year) and decrease of 2.1% (i.e. less than - 1% per year) respectively. The decline in per capita income means that the population increase over the same period is highest with individuals earning less than the per capita of Ksh.376. (see Table 4.2).

Consumer price indices compiled by the Central Bureau of Statistics indicate that low-income (Ksh.400 or less/month) and medium-income (Ksh.400 - 699) earners spend 52.2% and 41.2% of their incomes on food respectively (43, p. 271). These prices calculated on revised price indices (December 1966 and August 1971) indicate that lower income household consumer prices as a whole increased from 90 in December

1966 to 164.0 in October 1975 - an increase of 82.2% (i.e. 6% per year). Over the same period the consumer prices of middle income households rose by almost identical proportion from 86.0 to 16.0 (43, pp. 274-5).

The cost of living for Nairobi's low-income groups rose from 130.5 in May 1977 to 137.6 in September 1977 - an increase of 7.1 points in 5 months or 13.1% per year, whereas the middle income groups also rose by 5 points from 122.3 to 127.3 over the same period (i.e. a 9.8% rate per year). The high-income group cost of living rose by 6.7 points from 124.3 to 131 points (i.e. 12.9% per year) over the same period. For the high increase in the urban cost of living was mainly blamed on inflation resulting into high food prices (36, p.9).

4.1.3. Income Elasticity of Demand

Recent Estimates of urban expenditure elasticity of demand for starchy roots is 0.30, cereals 0.4, and for fruit and vegetables 0.5. In contrast the elasticities of demand for main processed foods are invariably far higher - for instance cheese 0.70, milk 0.8, butter 0.90, beef, sugar, tea and coffee 1.0 for each, poultry, meat 1.2 and wines 2.5 (8, p. 195 and 25, p.2).

As per capita income increases, so does average propensity to spend on more varied and attractive food products which require less time for procurement and preparation. But the urban per capita income for

Nairobi City is changing at a very infinitesimal negative rate (see Table 4.2) and procurement costs are high. This implies that the average Nairobi population will take long to include most of the high quality and nutritive processed foodstuffs in their shopping baskets.

Usually commodities with high income elasticity (e.g. milk, meat and other animal products) have high price elasticity, as such small decrease in their prices induces a greater increase in their consumption (15, p. 5). The indirect way of reducing these products' price is by reducing procurement costs of both retailers and consumers through an efficient urban food distribution system or directly by products price reduction. In both cases the Nairobi population will be attracted to high quality and nutritive food products.

4.2. GENERAL FOOD RETAIL OUTLET DEVELOPMENT (1977 - 1985)

According to the recent World Bank Estimates Nairobi City GDP will grow at a rate of 6% per annum for the next ten years. Using the World Bank income growth rate per year and projected Nairobi population figures, the total city incomes from 1975 to 1985 and per capita incomes between these years are calculated and shown in table 4.2. In the same table, the total households in Nairobi and their incomes are determined using the household average of 4.3 (35).

Table 4.2 NAIROBI HOUSEHOLDS, PER CAPITA INCOME CITY AND HOUSEHOLDS INCOMES, (1975-1985)

Year	Population '000'	Households '000'	Per Capita Income Ksh/Month	Household Income Ksh/Month	City Income Ksh mill./ Month
1975	763	177.4	376.0	1617	286.9
1976	814	189.3	373.6	1606	304.1
1977	868	201.9	371.7	1598	322.6
1978	927	215.6	368.6	1585	341.7
1979	989	230.0	366.2	1575	362.2
1980	1048	243.7	366.3	1575	383.9
1981	1112	258.6	366.0	1574	407.0
1982	1179	274.2	365.9	1245	341.4
1983	1251	290.9	365.5	1572	457.3
1984	1326	308.4	365.5	1572	484.7
1985	1396	324.7	368.1	1582	513.8

Sources: 1. Unpublished paper on projection of water consumption in Nairobi: Method: National rates of growth of GDP by Sector IBRD Internal Estimates, and Nairobi GDP = Gross Urban Product, (GDP = GUP), Ministry of Finance Estimates, 1967.

2. Nairobi Urban Study Group: Nairobi Metropolitan Growth Strategy, Vol.II, Technical Appendices.

Using the compound formula, the per capita income growth rate from 1977 to 1985 is approximately -0.02% per year. This rate is small and two assumptions can be made that either

(1) there will be no change in per capita for the three (low-, medium- and high-) income groups.

or (2) there will be a slight positive growth in income per capita for the high income group, no change for the medium-income group, and a slight negative income per capita for the low-income group.

Under the first assumption, which will be used for the projections below, the following will hold true:-

(a) the average household income will be exactly the same from 1977 to 1985.

(b) the average City income will remain constant over the same period.

4.2.1. FOOD MARKET SHARES, FOOD EXPENDITURES, RETAIL OUTLET DEVELOPMENT AND EMPLOYMENT EFFECTS

4.2.1.1. FOOD MARKET SHARES

Three reform options for the present Nairobi retail system are hereby proposed:-

Option I : no reform takes place and the present marketing system develops in a way that the prevailing structure remains more or less unchanged.

Option II : Self-selection stores are introduced over the projection period so that they claim a retail market share of 26% by 1985.

Option III : assumes that the formal markets are developed in such a way that hawkers and informal market stalls assume less importance and be partly replaced by the newly developed formal markets.

Table 4.3 displays various retail outlets' market shares under the three options.

Table 4.3 ESTIMATED NAIROBI RETAIL OUTLETS' MARKET SHARES UNDER THREE REFORM OPTIONS, 1977 AND 1985.

OPTION / YEAR	Grocery shops	Kiosks	City Council Market stalls	Hawkers	Butcheries	Self-service stores
- 1977	30.0	21.0	12.0	13.0	20.0	4.0
I 1985	24.4	12.4	10.8	12.8	21.6	18.0
II 1985	22.2	9.0	8.4	12.8	21.6	26.0
III 1985	26.0	14.4	18.0	10.8	20.8	10.0

Source: Gsanger, H., A strategy for Improving the Food Marketing to low-Income Consumers - Kenya, A Draft Report, December, 1977 (Table 22, p.43).

4.2.1.2 FOOD EXPENDITURES

Table 4.4 indicates the estimated household incomes and food expenditures for the three City income groups.

Table 4.4. ESTIMATED HOUSEHOLD INCOMES AND FOOD EXPENDITURES BY INCOME GROUPS PER MONTH, 1985

Income Groups	% City Income	Household Income mill. Ksh.	% Food Expenditure	Food expenditure in outlets
Low	11.5	59.1	43.0	25.4
Medium	32.5	167.0	40.8	68.1
High	56.0	287.7	28.0	80.6
TOTAL	100.0	513.8	33.9	174.1

Sources: 1. Technical Papers E 12 and E 13.
2. Consumer Price Indices, 1977.
3. World Bank Estimates of City Income.

With the information on food expenditure into the retail outlets and retail market shares known, the different consumer expenditures into the six retail outlets can be calculated.

Table 4.5 ESTIMATED CONSUMER FOOD EXPENDITURES INTO RETAIL OUTLETS (MILL. KSH.) PER MONTH, 1977 and 1985.

OPTIONS		Grocery shops	Kiosks	City Council Markets	Hawkers	Butcheries	Self-service stores	Total
	1977	32.8	23.0	13.1	14.2	21.9	4.4	109.4
I	1985	42.5	21.6	18.8	22.3	37.6	31.3	174.1
II	1985	38.7	15.7	14.6	22.3	37.6	45.3	174.2
III	1985	45.3	25.1	31.3	18.8	36.2	17.4	174.1

Source: Information contained in Tables 4.2, 4.3 and 4.4.

4.2.1.3 RETAIL OUTLET DEVELOPMENT AND EMPLOYMENT EFFECTS.

Table 4.6 is derived from the data contained in Tables 4.2, 4.3, 4.4 and 4.5. The following basic assumptions are applied:-

(a) the real disposable income per household remains unchanged over the projection period.

(b) that the 1977 retail outlet sale turnover (16, p.44) will remain constant through to 1985.

(c) that the employment structure [where grocery shops, kiosks, Nairobi City Council Markets, hawkers, butcheries and self- service stores are said to be operated by 4.5, 1.6, 1.4, 1 2 and 8 people respectively (16, pp. 30-38)] remains unchanged over the projection period.

Table 4.6 : Nairobi Food Retail outlet Development and Employment effects in 1977 and by 1985

	Grocery shops	Kiosks	City Council Market stalls	Open Air stall Hawkers	Butch-ries	Self-Service stores
Market Shares, 1977	30	21	12	13	20	4
Turnover Kshs/month	20000	6800	6100	2000	70000	150000
Number of outlets	1639	3374	2149	7101	312	29
Total Employment	7375	5499	3009	7101	936	232
Market Shares 1985 I	24.4	12.4	10.8	12.8	21.6	18
Number of outlets	2123	3174	3082	11141	537	209
Total Employment	9553	5173	4315	11141	1611	1672
Market Shares 1985 II	22.2	9.0	8.4	12.8	21.6	26
Number of outlets	1933	2304	2397	11141	537	308
Total Employment	8698	3755	3356	11141	1611	2464
Market shares 1985 III	26.0	14.4	18.0	10.8	20.8	10
Number of outlets	2263	3686	5136	9400	517	116
Total Employment	10183	5897	7190	9400	1551	928

Sources: 1. Tables 4.3, 4.4 and 4.5

2. H. Gsanger, A strategy for improving the Food Marketing to Low Income consumers in Nairobi - Kenya, Draft Report, December 1977

A change of the present retail system will result in a significant positive change of employment. This will contribute to reduce the overall unemployment rate in the City which is expected to be 27.7% (or 667,400 people) of the active labour force in 1985. The direct employment effects are displayed in the Table below.

Table 4.7. DIRECT EMPLOYMENT EFFECTS OF MARKETING REFORMS, 1977 - 1985

Reform Option	Change in Employment	
	Number	%
I	9313	36.6
II	6873	28.5
III	10997	45.5

Source: Information contained in Table 4.6

According to options I, II and III, the respective 1.4%, 1.0% and 1.6% of the total unemployed active labour force in 1985 will be absorbed in the food retailing sector alone while the employment in the food retailing sector will increase by approximately 37%, 29% and 46% in that order. Reform option III, that advocates the development of retail markets, offers the best employment facilities of all.

4.2.2 RETAIL OUTLET GROWTHS FROM 1977 - 1985.

Table 4.8 indicates the estimated retail units and their annual growth rates.

Table 4.8. ESTIMATED FOOD RETAIL OUTLETS, 1977 AND 1985.

Retail Outlets	Retail Units		Annual Growth Rates*
	1977	1985	
General Grocery Shops	1639	2106	3.2
Kiosks	3374	3055	-1.2
Formal (NCC) Markets	2149	3538	4.2
Open Air Stall Hawkers	7101	10561	5.1
Butcheries and Fish-mongeries	312	530	6.8
Self-Selection Stores	29	211	28.2
Total	14604	20001	4.0

Sources: 1. Average Retail units contained in Table 4.6 p. 63.

2. Author's Food Retail outlet Survey, April - June, 1977

On the whole, food retail outlet will grow at an approximate positive rate of 4% per year. With the exception of Kiosk, the rest of the outlets will have positive growth rates. Butcheries and especially self- service stores will be characterized by tremendous increase over the next eight years. Most of the self-service stores will be established in medium and high income areas since their present product ranges are tailored for the two income groups'

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* The annual growth rates contained in Tables 4.8 and 4.9 were calculated using Future Value Tables in Business Finance Theory and Management, 2nd edition, 1972 by Archer and D'Ambrosio, pp, 630-637.

specific food demands. At calculated growth rate, formal markets holding 98 stalls per market will increase from 22 to 36 markets by 1985 (i.e establishment of two markets each year).

4.2.3. REGIONAL RETAIL OUTLETS UNITS DEVELOPMENT FROM 1977 - 1985

Table 4.9 illustrates the projected retail units, population, their growth rates and population catchments per retail unit in various regions of the City (see Map 4.1).

The Western (Dagoretti) is experiencing rapid population growth rate estimated at a rate of 10% per year by the Nairobi Urban Study Group. As expected, this region has the highest retail outlet growth rate of 7.7% per year. The remaining regions have modest retail outlet expansion rates with least growths in City Centre and Southern regions. The low/medium income regions (i.e. City Centre and Eastern) have below City population average catchments per retail unit compared to the medium to high income Northern, Western and Southern regions. This indicates that the former regions will predominantly remain being served by small scale Kiosk-retailers, hawkers and market stall tenants, whereas there is room for development of modern outlets like self-service stores and grocery shops for the latter.

Table 4.9 ESTIMATED REGIONAL RETAIL UNIT DEVELOPMENT FROM 1977 to 1985

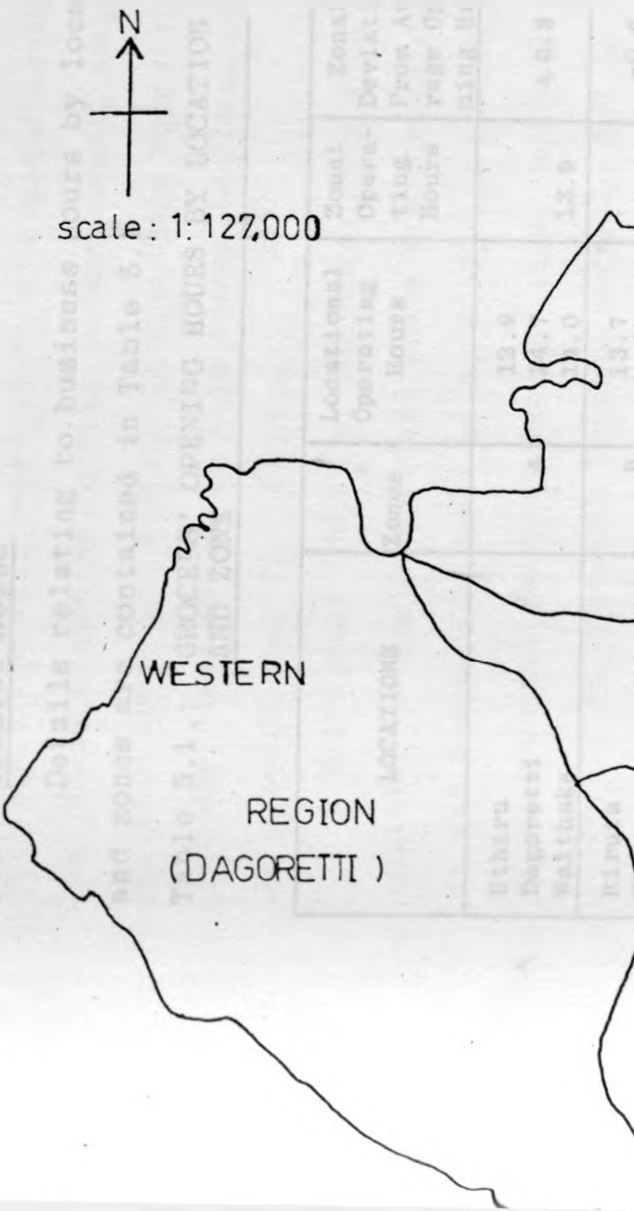
Regions	Retail Units		Annual Growth Rates	Population '000'		Annual Growth Rates	Population Catchment per retail unit.	
	1977	1985		1977	1985		1977	1985
Northern	1110	1520	4.1	172	264	5.5	155	174
City Centre	2015	2257	1.4	32	49	4.6	16	22
Eastern	8164	11181	4.0	360	553	5.5	44	49
Southern	2015	2257	1.4	203	313	5.6	101	139
Western	1300	2786	7.7	101	217	10.0	78	78
Total	14604	20001	4.0	868	1396	6.1	59	70

Source: 1. Nairobi Urban Study Group: Nairobi Metropolitan Growth Strategy Vol. II, Technical Appendices.

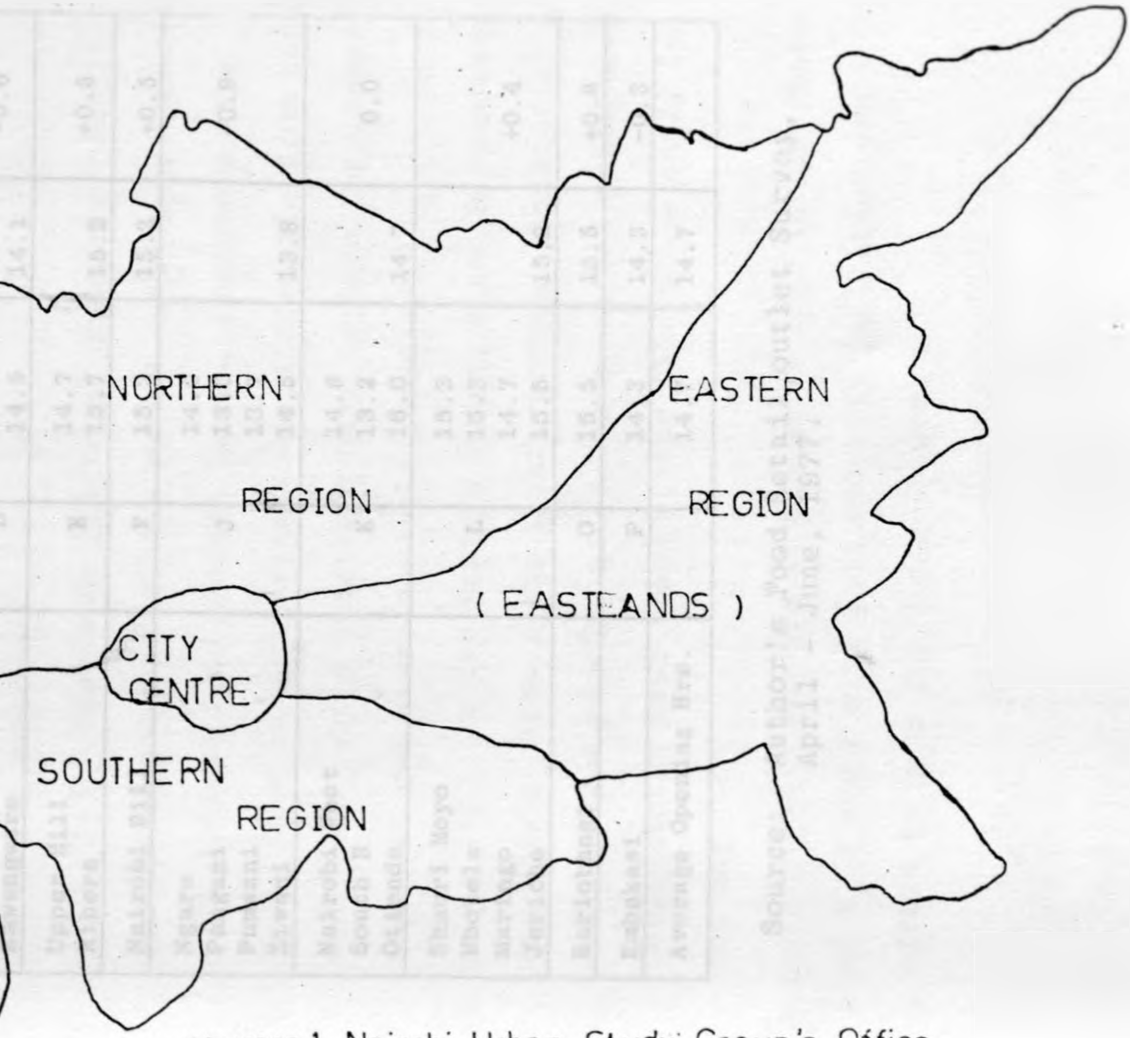
2. Retail units contained in Table 4.6

3. Author's Retail Outlet Survey, April - June, 1977

Map 4.1: NAIROBI



REGIONS . 1977.



sources: 1. Nairobi Urban Study Group's Office
2. Author's Field Survey, April-June, 1977.

CHAPTER 5

MICROANALYSIS OF FOOD OUTLET RETAILERS

5.1 SELLING HOURS

Details relating to business hours by location and zones are contained in Table 5.1

Table 5.1.: GROCERS' OPENING HOURS BY LOCATION AND ZONE

LOCATIONS	Zones	Locational Operating Hours	Zonal Operating Hours	Zonal Deviation From Average Opening Hrs.
Uthiru	A	12.9	13.9	+0.8
Dagoretti		14.7		
Waithaka		14.0		
Riruta	B	13.7	14.1	-0.6
Kawangware		14.5		
Upper Hill	E	14.7	15.2	+0.5
Kibera		15.7		
Nairobi Hill	F	15.2	15.2	+0.5
Ngara	J	14.0	13.8	-0.9
Pangani		13.0		
Pumwani		13.7		
Ziwani		14.5		
Nairobi West	K	14.8	14.7	0.0
South B		13.2		
Otiende		16.0		
Shauri Moyo	L	15.3	15.2	+0.4
Mbotela		15.3		
Maringo		14.7		
Jericho		15.5		
Kariobangi	O	15.5	15.5	+0.8
Embakasi	P	14.3	14.3	-0.3
Average Opening Hrs.		14.7	14.7	

Source: Author's Food Retail outlet Survey, April - June, 1977.

The low-income grocers of zones A, B, J and P close their business earlier than grocers of other zones. However, Eastlands grocers (i.e. taking the average of selling hours of O, P, L and J zones) and those of medium to high income zones E and F, operate above the average City selling hours of 14.7 per day. The medium to high income Southern zone, K, grocers open for 14.7 hours.

While most (68.5% of the total City food retail outlets) of the food retail units are concentrated in the low/medium zones of A, B, J, and L with similar socio-economic characteristics, their daily selling hours differ from zone to zone possibly due to the following reasons:-

(i) Eastlands (Eastern) areas are heavily populated and most of the retail outlets are small with limited food product lines. Consumers take their time in purchasing their foodstuffs from here and there, while retailers have to open for longer hours to get every possible customer.

(ii) In the Western zones, A and B, customers are mainly farmers who least purchase foodstuffs, and security for grocers after 7 p.m. is not guaranteed. Consequently most transactions take place early in the day.

(iii) Grocers in medium to high income zones of E, F and K with good security facilities can afford to open for longer hours.

Notably, Riruta, Kawangware, Ngara, Pangani, Pumwani and Embakasi grocers have shorter opening hours. These locations have numerous informal food retailers and are densely populated. Security precautions and the fierce competition from informal food retailers could be the main reason for grocers' shorter selling day. South B location grocers have shorter opening hours because the population is low and the trading area is in the centre of this medium/high income estate.

The main reason why grocers open as early as 7 a.m. and close by 10 p.m., could be explained by customers daily purchasing patterns as displayed in Table 5.2. From this table, its clear that most of the morning grocery customers purchase their (breakfast) foodstuffs between 6 a.m. and 8 a.m. while about 98% of the grocers' evening customers purchase their foodstuffs by 8.30 p.m. Using the figures in table 5.2 for the three times of the day, grocers' customers come mainly in the evenings. During morning, afternoon and evening hours, grocers get 29%, 19% and 52% of their daily customers respectively.

5.2 SOURCES OF RETAILERS FOOD SUPPLY

(a) Grocery Sources

Table 5.3 shows the different grocery sources to Nairobi food retailers. City Centre wholesalers are the main suppliers of fats and oils, beans and pulses, and cereal products. Food processing centres in Industrial Area, supply milk and milk products, bread and confectionaries either

Table 5.2: DAILY CUSTOMERS' PURCHASING PATTERNS

MORNING			AFTERNOON			EVENING		
Time (a.m.)	Frequency	Percent	Time (p.m.)	Frequency	Percent	Time (p.m.)	Frequency	Percent
6 - 7.59	34	43.4	12 - 1.30	37	69.8	4 - 6.30	90	62.9
8 - 8.59	32	40.5	1.31 - 2.30	13	24.5	6.31 - 8.30	50	35.0
10 - 11.59	13	16.5	2.31 - 3.59	3	5.7	8.31 - 10.30	3	2.1
Total	79	100.0		53	100.0		143	100.0

Source: Author's Food Retail outlet survey, April - June, 1977.

Table 5.3: GENERAL SOURCES OF GROCERS FOOD SUPPLY (%)

SOURCES \ FOOD GROUPS	Fruit and Vegetables	Milk and Milk Products	Cereal and Cereal Products	Beverages	Fats and Oils	Sugar	Beans and Pulses	Confectionery and Bread
Wakulima Wholesale Market	81.0	-	-	-	-	-	-	-
Other Markets	16.0	-	-	-	-	-	-	-
HCU	3.0	-	-	-	-	-	-	-
City Wholesalers	-	19.5	69.5	36.4	40.5	63.5	69.4	17.1
Nearby Wholesalers	-	18.2	28.8	23.4	16.8	32.7	2.0	17.1
City distributing vans	-	62.3	1.7	41.2	41.6	3.8	-	65.8
Farmers	-	-	-	-	-	-	28.6	-
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

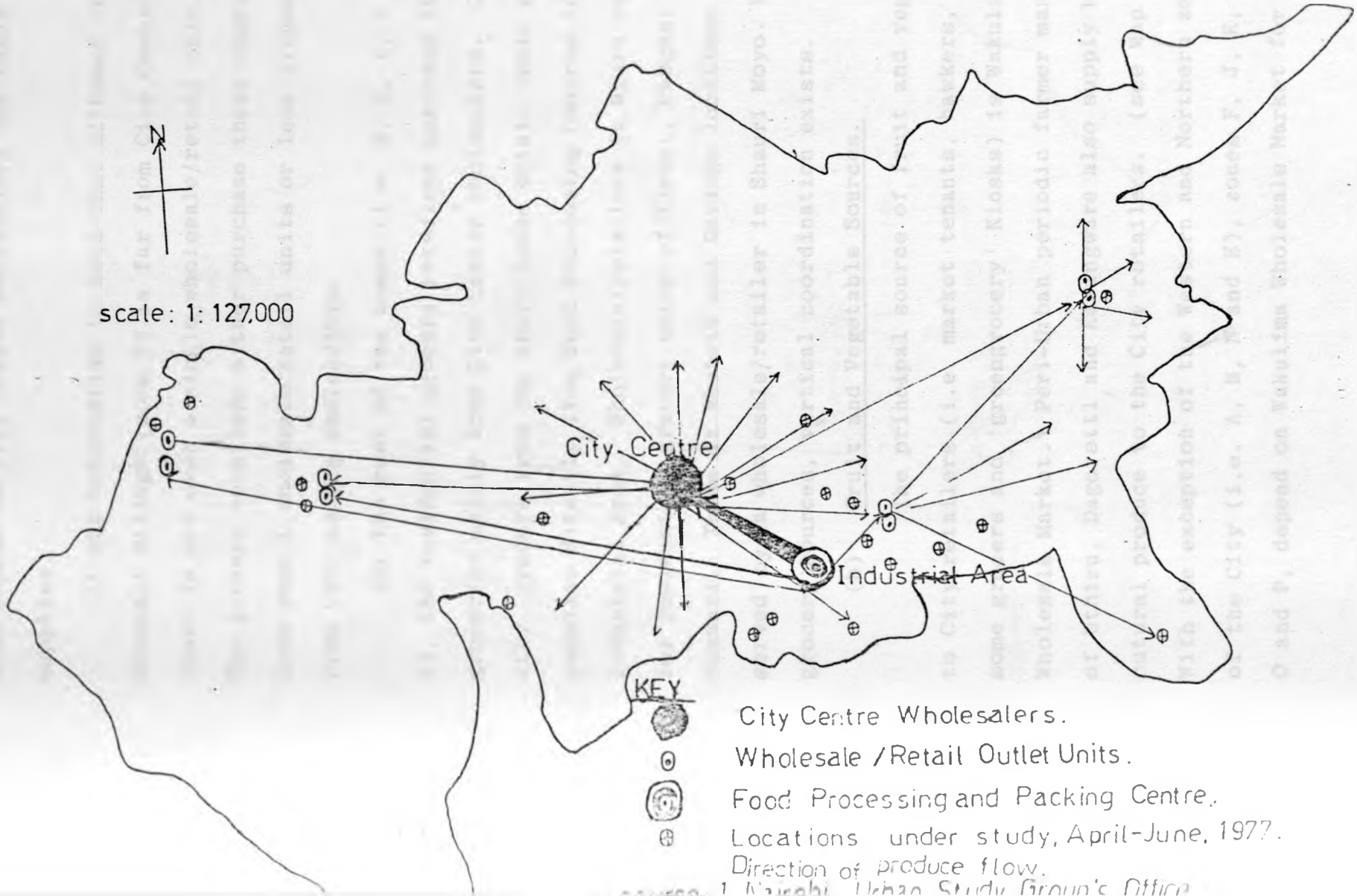
Source: Author's Food Retail Outlet Survey, April - June, 1977

directly to retailers or wholesale/retailers or their agents in different residential shopping centres. Farmers, on the other hand, supply eggs, beans and pulses directly to either City Centre Wholesalers or residential grocery shops. Uthiru, Dagoretti, Waithaka, Riruta, Kawangware, Embakasi and Kariobangi locations are low-income areas and far from the principal sources of food supply centres. Notably, Riruta, Kawangware and Kariobangi locations have high population densities and many small-sized food retail outlet units with low monthly sale turnovers. In these locations, wholesale/retailers serve as intermediaries between City Centre wholesalers and the respective residential grocery shops. (see Map 5.1).

Two wholesale/retail outlets at Dagoretti market and Uthiru, supply grocery foodstuffs to zone A residential grocery units. There are 3 wholesale/retail outlets located in Kawangware supplying groceries to zone B retailers. The two zones, A and B, are supplied with beverages, milk and milk products, bread and confectioneries from Dagoretti Corner distributing agents.

It was observed that zone O has similar socio-economic characteristics as zones A and B. Most of this zone grocery units get their foodstuff supplies from wholesale/retail units based in Kariobangi. In Kariobangi South, there is one general cooperative grocery wholesale/retail outlet and one beverage distributing agent supplying the small grocery retail units.

Map: 5.1 NAIROBI GROCERY SOURCES AND FLOW TO RETAILERS.



Source: Nairobi Urban Study Group's Office

However, large grocery shops in zones A, B and O also depend on City Centre wholesalers for their supplies.

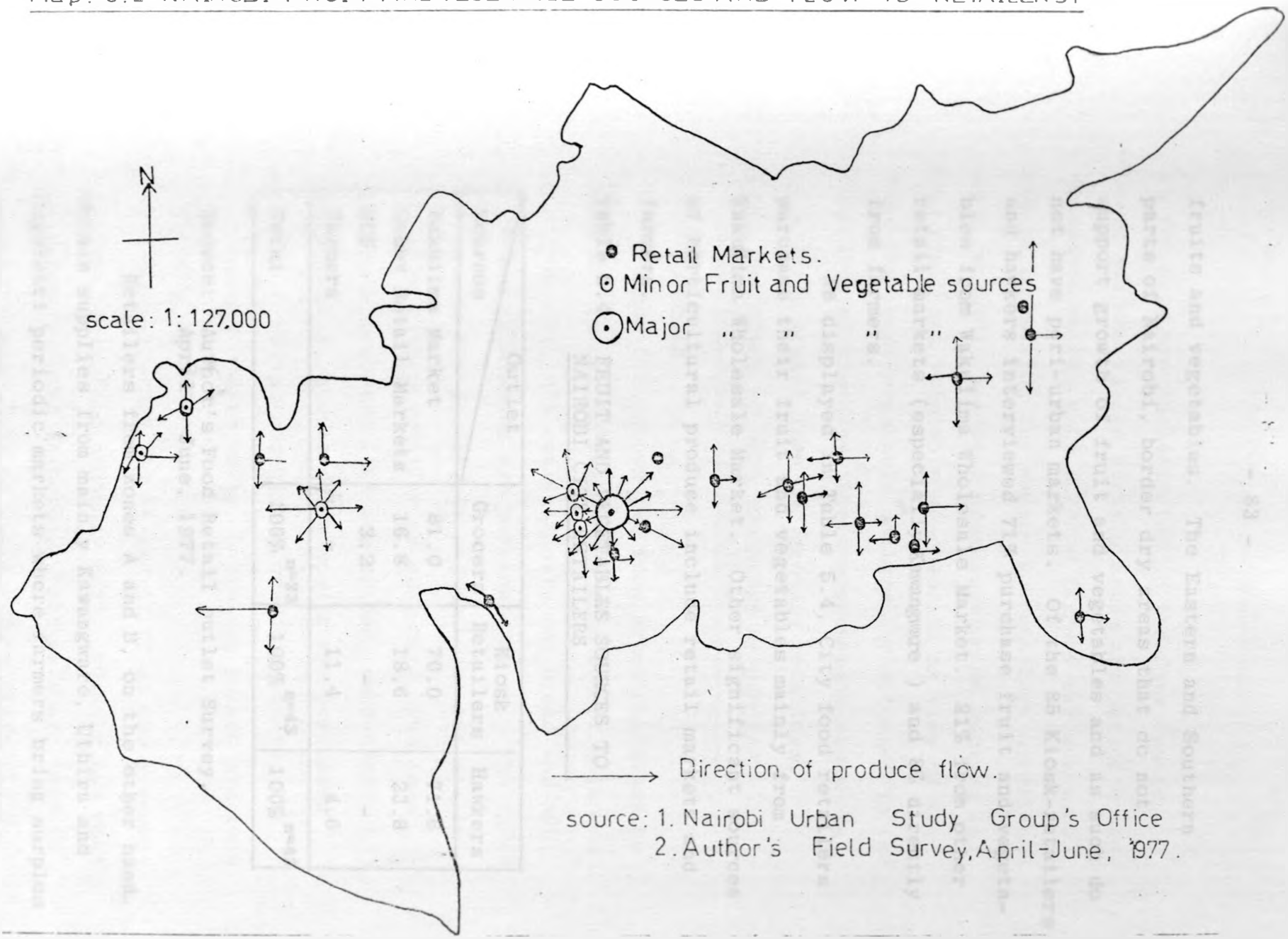
It was interesting to note that although the Embakasi village (zone P) is far from City Centre, there is not even a single wholesale/retail unit. The grocery retailers either purchase their supplies from zone L wholesale/retail units or less frequently from City Centre wholesalers.

For the rest of the zones (i.e. E, K, F, L and J), the residential grocery retailers purchase their groceries mainly from City Centre wholesalers. Occasionally, grocers from the above zones obtain their grocery supplies directly from Food Processing Centres in Industrial Area. Wholesale/retailers in Ngara cater for residential grocery units of Ziwani, Pangani and Pumwani. Those in Mbotela and Maringo locations are served by a wholesale/retailer in Shauri Moyo. Within grocery sources, vertical coordination exists.

(b) Fruit and Vegetable Sources.

The principal source of fruit and vegetables to City retailers (i.e. market tenants, hawkers, some grocers and 'greengrocery' Kiosks) is Wakulima Wholesale Market. Peri-Urban periodic farmer markets of Uthiru, Dagoretti and Kawangware also supply horticutural produce to the City retailers. (see Map 5.2). With the exception of the Western and Northern zones of the City (i.e. A, B, N and E), zones F, J, K, L, O and P, depend on Wakulima Wholesale Market for their

Map: 5.2 NAIROBI FRUIT AND VEGETABLE SOURCES AND FLOW TO RETAILERS.



source: 1. Nairobi Urban Study Group's Office
2. Author's Field Survey, April-June, 1977.

fruits and vegetables. The Eastern and Southern parts of Nairobi, border dry areas that do not support growth of fruit and vegetables and as such do not have peri-urban markets. Of the 85 Kiosk-retailers and hawkers interviewed 71% purchase fruit and vegetables from Wakulima Wholesale Market. 21% from other retail markets (especially Kawangware) and 8% directly from farmers.

As displayed in Table 5.4, City food retailers purchase their fruit and vegetables mainly from Wakulima Wholesale Market. Other significant sources of horticultural produce include retail markets and farmers.

Table 5.4 FRUIT AND VEGETABLES SOURCES TO NAIROBI CITY RETAILERS

Outlet / Sources	Grocers	Kiosk Retailers	Hawkers
Wakulima Market	81.0	70.0	71.6
Other Retail Markets	16.8	18.6	23.8
HCU	3.2	-	-
Farmers	-	11.4	4.6
Total	100% n=23	100% n=43	100% n=42

Source: Author's Food Retail outlet Survey, April - June, 1977.

Retailers from zones A and B, on the other hand, obtain supplies from mainly Kawangware, Uthiru and Dagoretti periodic markets where farmers bring surplus produce. Some Kiosk-retailers and hawkers obtain their supplies of fruit and vegetables directly from farms. The few fruit and vegetables sources that exist

in the City are concentrated in the City Centre. Other sources in the Western areas are periodic and dependent on how much surplus farmers can spare to the market making the supply to retailers unreliable. In a nutshell, vertical coordination is lacking in the fruit and vegetable sources and in view of the fact that most vegetable dealers are situated in the outskirts of the City, their procurement costs are relatively higher than to grocery retailers.

5.3. FREQUENCY OF FOOD PURCHASES BY GROCERS, HAWKERS AND KIOSK RETAILERS

5.3.1 Grocers

Table 5.5. shows the food group purchases by grocers. As may be seen, more than 60% of milk and milk products, 55% confectionery and bread and 55% fruit and vegetables are purchased daily. The three food groups are perishable and thus are not easily stored by either retailer or consumer. The less perishable products like dry onions, condensed and powdered milk, sweets and biscuits are purchased monthly. Unlike cereal and cereal products, the "slow-moving " fats, oils, beans and pulses are less frequently purchased.

Generally 26%, 19.2% and 17.7% of the grocers purchase their food products daily, monthly and weekly respectively. The in-between intervals are used to restock products that sell off before principle purchasing times. Grocers' purchasing patterns by zones are summarised in Table 5.6 below.

Table 5.5.: GENERAL GROCERS FREQUENCY OF PURCHASES BY FOOD GROUPS

PURCHASING INTERVAL / FOOD GROUP	Daily	Twice a week	Weekly	Twice a month	Monthly	Anytime	Total %
Fruit and vegetables	57.2	21.4	7.1	-	3.6	10.7	100.0
Milk and Milk Products	61.4	2.4	2.4	4.8	19.2	20.8	100.0
Cereal and Cereal Products	7.4	17.6	36.8	13.2	13.2	11.8	100.0
Beverages	10.8	29.0	12.9	7.5	24.7	15.1	100.0
Fats and Oils	-	26.0	50.0	6.0	2.0	16.0	100.0
Beans and Pulses	-	2.3	6.8	15.9	47.7	27.3	100.0
Confectionery and bread	57.6	1.1	7.6	3.3	18.5	11.9	100.0
General Purchasing Pattern	25.6	13.1	17.7	10.1	19.2	14.4	100.0

Source: Author's Food Retail outlet Survey, April - June, 1977.

Table 5.6.: GROCERS' FOOD PURCHASING PATTERNS (IN %) BY ZONES

PURCHASING INTERVAL / ZONES	Daily	Weekly	Twice a Week	Twice a Month	Monthly	Anytime	Percentage
A	22	22	20	5	25	6	100.0
B	25	15	13	11	29	7	100.0
E	30	17	20	3	13	17	100.0
F	28	20	16	8	12	8	100.0
K	22	21	17	14	19	8	100.0
L	29	16	8	9	16	22	100.0
J	33	9	16	14	7	21	100.0
O	21	21	21	12	10	15	100.0
P	23	17	10	13	10	27	100.0

Source: Author's Food Retail Survey, April - June, 1977

The retailers in zones, A and B, purchase most of their foodstuffs at an interval of one month. Like in any other zones, their weekly and daily purchases are limited to such foodstuffs as milk, beverages, bread and confectionery distributed to them by wholesalers and their agents.

However, grocers in zone P seem to have no specific foodstuff purchasing pattern. The survey revealed that Embakasi village grocers depend on distributors whose frequency of supply is irregular and product line limited. The probable reasons why this is so are:

(a) low population density in the village,

(b) low income consumers,

and (c) high transportation costs.

Grocers in zones E, F and K which border the principal City food supply sources, have higher purchasing frequencies (i.e. once and twice a week).

Zones J and L are densely populated with numerous small-scale outlets. Because of their limited business sizes, grocers here have high purchasing frequencies under "anytime" column. Substantial wholesale/retail shops have sprung up to capitalize on these small retail outlets' inability to purchase food products from the City Centre wholesalers.

5.3.2 KIOSK-RETAILERS AND HAWKERS FREQUENCY OF PURCHASE

Kiosk retailers and hawkers food purchases are summarised in the table below. Whereas grocers' purchasing patterns do not show much variance, kiosk-

retailers and hawkers mainly purchase at daily and twice a week intervals.

Table 5.7: FREQUENCY OF FOOD PURCHASE BY TYPE OF FOOD RETAIL OUTLET

Retailers / Intervals	% Grocers	% Kiosk-Retailers	% Hawkers	Total (%)
Daily	25.6	42.7	59.0	46.0
Weekly	17.7	16.8	8.8	15.4
Twice a week	13.0	25.3	32.2	28.2
Twice a month	10.1	11.1	-	7.4
Monthly	19.2	4.1	-	8.2
Anytime	14.4	-	-	4.8
Total	100.0	100.0	100.0%	100.0

Source: Author's Food Retail outlet Survey, April - June, 1977

5.3.3. RETAILERS MONTHLY PURCHASING TRIPS

The formula below is used to arrive at retailers average monthly trips indicated in Table 5.8

$$T_M = \frac{\sum_{i=1}^{n} \left(P_{i.R.tm} \right)^*}{R}$$

whereby T_M = average trips made by the retailers per month

P_i = average percent of retailers per purchasing interval (e.g. daily, weekly etc.)

* Formula developed by the Author.

Table 5.8: AVERAGE MONTHLY TRIPS MADE BY GROCERS, KIOSK-RETAILERS AND HAWKERS

		Daily	Weekly	x 2 a week	x 2 a month	Monthly	Anytime	Total
Possible trips/month		26	4	8	2	1	3	
Average percent of retailers (Pn)	A	25.6	17.7	13.0	10.1	19.2	14.4	100.0
	B	42.7	16.8	25.3	11.1	4.1	-	100.0
	C	59.0	8.8	32.2	-	-	-	100.0
Number of retailers (R)	A	14	10	7	6	11	8	56
	B	21	8	12	5	3	-	49
	C	25	4	13	-	-	-	42
Total trips/month (tm)	A	364	40	56	12	11	24	507
	B	546	32	96	10	3	-	687
	C	650	16	104	-	-	-	770
Average Trips Per Month (T_M)	A							9
	B							14
	C							18

Source: Food Retail outlet Survey, April - June, 1977

Note:

A = Grocers
B = Kiosk-retailers
C = Hawkers

R = Total number of retailers per outlet.

t_m = possible monthly trips under each purchasing interval.

Note: (i) For "Any time" purchasing interval, an arbitrary figure of 3 trips in a month was taken.

(ii) Values for P_i, R and t_m are contained in table 5.7

As expected hawkers and kiosk retailers make more purchasing trips than grocers in a month. This is true because hawkers and kiosk-retailers are small volume food products retail dealers.

5.4. RETAILERS' PROCUREMENT ACTIVITIES.

5.4.1. MODES OF TRANSPORT

According to retailers' responses, the principal modes of transport are public vehicles and handcarts. The two means of transport account for 36.5% and 29.3% of the total modes of transport available to retailers respectively.

Table 5.9: THE MODE OF TRANSPORT USED BY RETAILERS AND TYPE OF OUTLET

RETAILERS / MODE OF TRANS.	Grocers	Kiosk-Retailers	Hawkers	All Retailers
Own Vehicle	15.6	-	-	5.2
Public Vehicle	29.4	38.1	41.9	36.5
Distributing vans	40.4	-	-	13.5
Own Bicycle	2.5	23.8	-	8.8
Handcart	10.6	28.6	48.8	29.3
Others	1.0	9.5	9.3	6.6
Total	100.0	100.0	100.0	99.9

Source: Author's Food Retail outlet Survey, April - June, 1977

As indicated in Table 5.9, distributing vans are most important to grocers.

Bicycle as a means of transporting food commodities from the wholesalers to the retailers' operational areas are of special importance to kiosk owners.

However, the importance of modes of transport by retailers varies with distance between the food product sources and their retail destinations.

Tables 5.10 and 5.11 illustrate the relative importance of different modes of transport by food groups and type of outlet units. It can be seen that in the case of grocers, distributing vans are most popular in zones A, K and L. They mainly transport such food items as bread and confectioneries, milk and milk products; beverages, fats and oils. Usage of "own vehicle" is most important in the high income zone of E where 39% of the grocers use it to market cereal and cereal products, sugar, beans and pulses. Handcarts are popular in zones A and B because they supply fruit and vegetables which are an additional item to grocers' product range.

As far as kiosk-retailers and hawkers are concerned, handcarts remain almost the sole mode of transport for fruit and vegetables. Retailers in the medium, high and low income zones (E, G, O, and P) entirely depend on public vehicles e.g. pirate taxis, buses and hired pick-ups.

Table 5.10: THE RELATIVE IMPORTANCE OF DIFFERENT MODES OF TRANSPORT IN DIFFERENT NAIROBI REGIONS USED BY VARIOUS RETAILERS

(a) Grocers

TRANSPORT / ZONE	Own Vehicle	Own Bicycle	Public Vehicle	Distributing Vans	Handcart	Total %
A	3.6	1.8	28.6	42.8	23.2	100.0
B	8.9	11.1	13.3	37.8	28.9	100.0
E	39.3	25.0	-	35.7	-	100.0
F	23.3	-	46.7	23.3	6.7	100.0
K	27.9	1.6	19.7	45.9	4.9	100.0
L	20.4	4.6	25.0	48.1	1.9	100.0
J	-	-	38.5	31.8	18.7	100.0
P	19.2	-	42.3	30.8	7.7	100.0
O	30.7	-	7.7	38.5	23.1	100.0

(b) Kiosk retailers

TRANSPORT / ZONE	Own Vehicle	Own Bicycle	Public Vehicle	Distributing vans	Handcart	Others
A	-	-	37.5	-	25	37.5
B	-	11.2	55.5	-	33.3	-
E	-	-	100.0	-	-	-
F	-	-	100.0	-	-	-
K	-	-	25.0	-	75.0	-
L	-	60.0	10.0	-	10.0	20.0
J	-	33.6	24.9	-	41.5	-
P	-	-	100.0	-	-	-
O	-	-	66.7	-	33.3	-

(c) Hawkers

A	-	14.0	30.0	-	56.0	-
B	-	-	30.0	-	80.0	-
E	-	-	100.0	-	-	-
F	-	-	100.0	-	-	-
K	-	-	10.0	-	90.0	-
L	-	-	45.5	-	55.5	-
J	-	-	16.0	-	50.0	34.0
P	-	-	100.0	-	-	-
O	-	-	100.0	-	-	-

Sources (a,b,c,) Food Retail Outlet Survey, April - June, 1977

Table 5.11: THE IMPORTANCE OF DIFFERENT MODES OF TRANSPORT TO DIFFERENT FOOD GROUPS PURCHASED BY GROCERS.

FOOD COMMODITIES / MODES OF TRANSPORT	Fruit and Vegetables	Milk and Milk Products	Cereal and Cereal Products	Beverages	Fats and Oils	Sugar	Beans and Pulses	Bread and Confectionery
Own Vehicle	13.3	4.2	26.3	12.7	16.1	24.5	25.0	9.0
Own Bicycle	6.7	2.8	3.5	2.5	1.3	-	2.1	3.0
Public Vehicle	46.7	19.5	36.9	19.0	32.0	49.1	35.4	14.9
Handcart	30.0	2.8	17.5	10.1	8.0	17.0	10.4	3.0
Distributing Vans	3.3	68.1	14.0	55.7	41.3	9.4	27.1	70.1
Others	-	2.8	1.8	-	1.3	-	-	-
Total	100	100.2	100	100	100	100	100	100

Source: Author's Food Retail outlet Survey, April - June, 1977

5.4.2. RETAILERS' TRANSPORT COSTS

Table 5.12 below summarises the average transport costs per purchasing trip in various regions of the City (also see Appendix V (i)).

Grocers

Grocers in zones A, E, L, J, P and O spend more than 6% of their total trip purchase expenses on transport. This is so because retailers in these zones are far removed from the main City Centre food supply centres. Retailers in the rest of the zones (B, F and K), spend less than 4% because of the following reasons:-

(i) wholesale/retailers supply food products to grocers in zone B,

and (ii) zones F and K are located near City Centre food suppliers.

Generally, there is not much variance between grocers' transport costs in all zones. This could be attributed to a relatively streamlined grocery distribution system (see Figure 3.2., P.56).

Kiosk-retailers and Hawkers

On average these incur higher transport costs than grocers because:-

(i) they purchase small volumes of food products per trip,

(ii) of long distances between sources of products (mainly fruit and vegetables supply) and their retail units,

(iii) of the nature of the products they mainly deal in i.e. horticultural products

are more perishable than groceries and thus the retailers buy smaller volumes than grocers each trip whereas overhead costs including transport remain the same regardless of quantities purchased.

As such kiosk-retailers in zones E and P who have no wholesale/retailers and retail markets, incur higher transport costs than the rest of the retailers. In the case of hawkers in zones A, E, F and P, the absence of the main supply centre and retail markets is the main factor contributing to higher transport costs than of hawkers in other zones.

5.5. RETAILERS' MARGINS

Table 5.13 gives a general view of retailers' margins. As compared to the other two retailers, grocers have higher value sale turnovers, volumes of trade, and overhead costs. Kiosk-retailers and hawkers have relatively similar gross and net margins because they have low or non-existent overhead costs like payment of rents, cash registers, weighing machines, water and electricity bills.

Full details on retailers' margins in different regions of the City are given in Table 5.14.

Grocers

Grocers in zones K have the highest net margins and lowest total costs while those in J have the least margins and highest costs. Zone K retailers border the

Table 5.13: GENERAL RETAILERS'MARGINS/MONTH, 1977

Transactions/margins \ Retailers	Grocers	Kiosk-retailers	Hawkers
Sale turnovers (Ksh.)	19622	4419	2347
Purchases (Ksh.)	10192	2551	1462
Total costs (Ksh.)	2606	331	273
Gross margins (Ksh.)	9430	1740	962
Net margins (Ksh.)	6824	1414	670
Gross margins as % of sale turnover	48.1	39.4	41.0
Net margins as % of sale turnover	34.8	32.0	28.5
Total cost as % of sale turnover	13.3	7.5	11.6

Source: Author's Food Retail Outlet Survey, April - June 1977

Table 5.14: RETAILERS' AVERAGE MARGINS/MONTH BY ZONES, 1977

(a) Grocers

ZONES	Sale turnover (Ksh.)	Purchases (Ksh.)	Total Cost (Ksh.)	Gross Margin (Ksh.)	Net Margins (Ksh.)	Gross Margin as % of sale turnover	Net Margin as % of sale turnover	Total Cost as % of sale turnover
A	13517	7995	1762	5522	3760	40.9	27.9	13.0
B	25750	15666	3110	10084	6974	39.2	27.1	12.1
E	13000	5667	2787	7333	4546	56.4	35.0	21.4
F	11333	10167	2605	1166	-1439	10.3	-12.7	-23.0
K	61167	25611	3720	35556	31836	58.1	52.0	6.1
L	15458	7250	2850	8208	5358	53.1	34.7	18.4
J	12875	7375	2627	5500	2873	42.7	22.3	20.4
O	13000	6500	2518	6500	3982	50.0	30.6	19.4
P	10500	5500	1478	5000	3522	47.6	33.5	14.1
Average	19622	10192	2606	9430	6824	48.1	34.8	13.3

(b) Kiosk-retailers

A	4908	2065	235	1693	1458	34.5	29.7	4.8
B	3175	1717	283	1458	1174	45.9	37.0	8.9
E	3000	1597	350	1403	1053	46.8	35.1	11.7
F	4800	3000	122	1800	1678	37.5	35.0	2.5
K	5417	3750	349	1667	1317	30.8	24.3	6.4
L	6275	3500	456	2775	2319	44.2	37.0	7.2
J	5200	3062	274	2138	1864	41.1	35.8	5.3
O	4500	3000	400	1500	1100	8.9	33.3	24.4
P	2500	1270	510	1230	760	49.2	30.4	20.4
Average	4419	2551	331	1749	1414	39.4	32.0	7.5

(c) Hawkers

A	1575	1100	258	475	217	30.2	13.8	16.4
B	4125	2580	359	1545	1186	37.5	28.8	8.7
E	2020	1272	258	748	490	37.0	24.3	12.8
F	3000	2100	403	900	497	30.0	16.6	13.4
K	3325	1875	302	1450	1148	43.6	34.5	9.1
L	2025	1325	277	1400	1123	69.1	55.5	13.7
J	2550	1762	209	788	579	30.9	22.7	8.2
O	1600	920	139	680	514*	42.5	33.8	8.7
P	900	225	249	675	426	75.0	47.3	27.7
Average	2347	1462	273	962	670	41.0	28.5	11.6

Source: Author's Food Retail Outlet Survey, April - June, 1977

City Centre food suppliers and are patronised by medium to high income consumers. They have the least procurement costs and the largest sale turnovers, consequently they are able to reap the economies of scale. Zone J retailers are faced with fierce competition from numerous small scale retail units and their customers are mainly of low purchasing power. They are also relatively far removed from the main food suppliers. As a result their sale turnovers are low and overhead and operational costs high.

Kiosk-retailers and Hawkers

Kiosk-retailers have comparatively higher sale turnovers, gross and net margins and lower total costs than hawkers per month. The abnormally high total costs for Kiosk-retailers (in zones O and P) and hawkers (in zone P) may possibly be due to:

(i) dependence on distant City Centre food suppliers,

and (ii) absence of wholesale/retailers in zone P.

CHAPTER 6

MICROANALYSIS OF CONSUMERS

6.1 SHOPPING PATTERNS OF CONSUMERS

Out of 77 consumers interviewed, 73% purchase foodstuffs away from their residential areas. These are mainly from medium- to high- income and new residential areas in zones E, F, K and P.

Table 6.1.: GENERAL CONSUMER SHOPPING PATTERNS

Source of foodstuffs	Frequency Distribution		
	No.	%	
Residential retail outlet	21		27
City Centre	27	35	
Market Stalls	23	23	73
Other Residential retail units	16	15	
Total	77		100

Source: Author's Consumer Survey, April-June, 1977.

According to consumer responses, the reasons why they purchase foodstuffs away from their residential areas are as follows:-

(1) Foodstuffs not available.

(2) Lower prices elsewhere.

(3) Credit facilities elsewhere.

(4) Convenient outlets on their way from work.

The reasons (1) and (2) are the most important, for they stand in the way of 40% and 35%, as displayed in Table 6.2, respectively.

Table 6.2.: REASONS WHY CONSUMERS PURCHASE AWAY FROM THEIR RESIDENTIAL AREAS

Reasons	Frequency Distribution	
	Number	%
Foodstuffs not available	26	40
Lower prices elsewhere	23	35
Credit facilities elsewhere	3	4
Outlets on their way from work	11	17
Others	3	4
Total	66	100

Source: Author's Consumer Survey, April-June, 1977

The City Centre remains the main source of food supplies to Nairobi consumers. Convinience seems to be the most important factor behind consumers' shopping patterns. Most of the City population work in the City Centre and the neighbouring Industrial Area. The survey revealed that 48% of the consumers that obtain foodstuffs away from their residential areas, buy foodstuffs from City Centre, 31% from retail markets and 21% from other locational food retail outlets. Most food purchases are done by housewives and their purchasing foodstuffs away from their residential outlets implies that residential outlets do not meet all their foodstuffs requirements.

On an analysis of consumers that purchase away from their residential areas zone by zone*, the following purchasing patterns were identified:-

* For full details on alternative sources available to consumers in various locations

Zone A: 57% of the consumers in this zone buy their foodstuffs from City Centre, 36% from Kawangware market and 7% from Shauri Moyo Market.

Zone B: 50% of the consumers obtain their supplies from the Centre of Nairobi, while 50% in Riruta purchase from the neighbouring location of Kawangware.

Zone E: At Upper Hill, 28% shop from Hurlingham, 24% from City Centre, 24% from Adams Arcade, 12% from ABC and 12% from Tesco. This location is a large, high-income area having only two shopping centres at Hurlingham and Adams Arcade. For Kibera consumers, 75% depend on City Centre while 25% buy from Adams Arcade.

Zone K: The major food retail source available to consumers in this zone is City Centre, where 63% of the consumers obtain their food supplies. The rest shop in Quarry Road and Kariokor Markets.

Zone J: 55% of the consumers purchase from City Centre, 27% from Quarry Road Market, and 18% from Majengo food retail outlets.

Zone O: of the Kariobangi consumers that prefer getting their food supplies away from their area, 33% shop from City Centre, 33% from Quarry Road Market and the rest illegally from Wakulima Wholesale Market.

Zone L: Consumers in this area shop from City Centre, Joggo and Quarry Road Markets in respective proportions of 69%, 23% and 8%.

Table 6.3: THE PURCHASING PATTERNS OF CONSUMERS IN THEIR RESIDENTIAL AREAS

Type of Outlet / Purchasing Pattern	Grocery (%)	Kiosk (%)	Market Stall (%)	Hawkers (%)	Total (%)
Same outlet each time	18	23	26	16	22
Different outlets	82	77	74	84	78
Total	100	100	100	100	100

Source: Author's consumer survey, April - June, 1977

Zone F: For the Nairobi Hill consumers 50%, 25%, 13% and 12% purchase from City Centre, Hurlingham, Adams Arcade and Otiende respectively.

Zone P: 75% of Embakasi consumers purchase foodstuffs from City Centre while the rest obtain their supplies from Shauri Moyo (Burma) Market.

The 27% of the consumers that purchase from their residential retail outlets, are mainly from low-income and densely populated zones of B, J, L, O and A. With exception of Waithaka location, Kawangware, Riruta, Kariobangi, Maringo, Shauri Moyo and Ziwani are adequately served by retail food market stalls, hawkers and kiosk-retailers.

As indicated in Table 6.3, 78% of the consumers in the low income areas purchase foodstuffs from different retail outlet units. Asked why consumers purchase from different outlets, the overriding reason was limited product lines and poor services. Unlike medium to high income consumers, the price factor is of less significance in low income areas (Tables 6.2 and 6.4).

Table 6.4: MAJOR REASONS WHY LOW-INCOME CONSUMERS PURCHASE FOODSTUFFS IN DIFFERENT RETAIL UNITS IN THEIR LOCATIONS

Reasons	Frequency Distribution	
	Number	%
Limited product lines and services per outlet	100	64
Lower prices elsewhere	29	29
Shops near home	14	9
Others	12	8
Total	155	100

Source: Author's Consumers' Survey, April-June, 1977

Table 6.5 indicates that convenience, adequate food products range and services offered are the main forces behind consumers purchasing in the same retail outlet each time.

Table 6.5: REASONS WHY CONSUMER PREFER BUYING FOODSTUFFS IN ONE PARTICULAR RETAIL OUTLET EACH TIME

Reasons	Frequency Distribution	
	Number	%
Near home and place of work	19	33
Adequate services	10	17
Complete Product range	9	16
No alternative outlet units	6	10
Lower prices	6	10
Credit facilities	8	14
Total	58	100

Source: Author's Consumer Survey, April - June, 1977.

6.2 FREQUENCY OF FOOD PURCHASES

6.2.1 Consumer Daily Purchasing Times.

As displayed in Table 6.6., most consumers purchase their foodstuffs in the morning and evening hours.

Table 6.6: FREQUENCY DISTRIBUTION OF DAILY CONSUMER PURCHASES

Reasons	Frequency Distribution	
	Number	%
Morning	48	41
Afternoon	7	6
Evening	61	53
Total	116	100

Source: Author's Consumer Survey, April - June, 1977

The morning purchases are mainly confined to breakfast foodstuffs like fresh milk, bread, eggs, tea and coffee. During working hours (i.e. 8.00 a.m to 4.30 p.m.), food purchases are at a minimum because consumers depend on "light" meals at their places of work. The evening hours are characterised by evening food purchases for "heavy" supper meals.

6.2.2. Frequency of Food Purchases

The relative importance of food purchases by consumers at six different intervals within a month are illustrated in Table 6.7.

Fresh milk and bread are the main food items purchased daily. This is because these foodstuffs are highly perishable in the event of no adequate storage facilities. In addition to that, the two products are under an efficient and dependable distribution system which covers most of the residential retail outlets within the City.

The frequency of purchases of fruit and vegetables is the highest compared to the other food groups. About 65% of the consumers purchase horticultural produce more than twice a week, which in essence, means that they are the most popular food items in most consumers' daily diets.

By virtue of their relative durability, cereal and cereal products (i.e. maize flour and rice) are mainly purchased monthly. But due to varied socio-economic characteristics of consumers in the City,

Table 6.7: CONSUMER FREQUENCY OF FOOD PURCHASES (%)

Purchasing Frequency / Food Group	Daily	Three times a week	Two times a week	Once a week	Once a month	When necessary
Fruit and vegetables	12	28	25	20	7	8
Cereal and Cereal vegetables	3	14	20	24	31	8
Meat, Fish and eggs	18	19	14	20	21	8
Fats and oils	11	9	2	9	53	16
Beverages	6	8	15	10	25	36
Bread and confectionery	33	7	4	6	3	47
Beans and pulses	-	22	30	30	12	6
Milk	96	-	-	-	-	4
Weighted Average	22	13	14	15	19	17

Source: Author's Consumer Survey, April - June, 1977

once and twice a week purchases are not uncommon. Only 8% of the consumers no longer treat this food group as an essential part of their daily diets.

The high nutritive and proteinic foodstuffs like meat, fish, eggs, fats and oils are less frequently purchased by consumers. In the case of meat, fish and eggs, there is little variation over the six purchasing intervals though weekly and monthly purchases seem to be most popular. Fats and oils are mainly purchased monthly partly because most consumers use month end salaries to buy large stocks and partly due to the fact that most consumers still treat this food group as a luxury item.

From the above table, most of Nairobi consumers generally depend on horticultural produce. Apart from fresh milk, the high quality and nutritive animal products like meat, fish, eggs, fats and oils do not play a significant role in the consumers' daily diets.

6.3. CONSUMER PROCUREMENT ACTIVITIES

6.3.1. Modes of Transport

Table 6.8 outlines the modes of transport used in procuring foodstuffs by consumers.

Table 6.8.: MODES OF TRANSPORT USED IN SHIPPING CONSUMERS' FOODSTUFFS FROM VARIOUS RETAIL OUTLETS, 1977

Modes of transport	Frequency distribution %
Buses	54.5
Pirate taxis (matatus)	18.7
Own vehicle	11.6
Others	15.2
Total	100.0

Source: Author's Consumers Survey, April - June, 1977

As may be seen in Table 6.8, Kenya Bus Service remains the principal carrier of consumers' food purchases. The usage of "own" vehicles is prevelent in medium to high income locations of Upper Hill and Nairobi West (see Appendix VI, ii). As illustrated above, 15% of the consumers use other modes of transport which includes walking.

6.3.2. Distance Covered; Transport costs and Time involved when Purchasing Foodstuffs

To determine consumers' food procurement activities in different regions of Nairobi, three variables: distance, transport cost and time involved were investigated. Table 6.9 illustrates the three variables in the zones under study.

The low to medium income peri-urban consumers in zones A, O and P incur the highest procurement costs. Limited product ranges in zones J and L are the main reasons why the consumers take longer times seeking for their food products despite the large numbers of small scale outlets. In all, low to medium income consumers are faced with higher procurement costs than high-income consumers in zones E, F and K (their main source of food supply is City Centre). On average a Nairobi consumer still travels approximately 6 kilometres, spends Ksh.2.00 on transport and takes 54 minutes per purchasing trip.

6.3.3. Consumers' Food and Entertainment Expenditures

Table 6.10 sums up consumers' food and entertainment expenditures by income groups. Full details on the two expenditures by location are contained in Appendices VI (iii), (iv) and (v).

Table 6.9: AVERAGE DISTANCE, TRANSPORT COSTS AND TIME INVOLVED PER PURCHASING TRIP, 1977

Zones	Socio-Economic Characteristics	Distance (Kilometres)	Transport cost (Ksh.)	Time (minutes)
A	Low- medium- Income	9.0	2.60	65
B	Low- medium- Income	3.5	1.60	62
E	High Income	6.5	2.40	45
F	High Income	4.0	2.00	40
J	Low Income	2.0	1.60	35
K	Medium Income	5.0	2.20	60
L	Low- medium- Income	3.0	1.60	30
O	Low- medium- Income	12.0	3.00	70
P	Low- medium- Income	10.0	3.00	80
Average		6	2.20	54

Source: Author's Consumer Survey, April - June, 1977

Table 6.10.: CONSUMERS' FOOD AND ENTERTAINMENT EXPENDITURE BY INCOME GROUPS (KSH.) 1977

Income Groups / Expenditures/month	Low-Income	Medium-Income	High-Income
Average Income	638.5	1360.5	3590.5
Cash food expenses	215.0	361.1	733.3
Rural food value	76.3	70.9	52.6
Urban "Shamba" food value	50.6	78.9	58.6
Entertainment expenses	75.0	78.6	170.0
Entertainment and food expenditure %	54.5	42.9	27.9

Source: Author's Consumer survey, April - June, 1977.

Table 6.11.: EXPENDITURE COMPONENTS BY INCOME GROUPS

Expenditures \ Income Groups	Low	Medium	High
Total food and entertainment expenditure	416.9	589.5	1014.5
Cash food expense (%)	51.6	61.3	72.3
Entertainment expense (%)	18.0	13.3	16.8
Rural food (%)	18.3	12.0	5.2
Urban "shamba" food (%)	12.1	13.4	5.8

Source: Author's Consumer Survey, April - June, 1977

The low-, medium- and high- income consumers spend the respective 54.5%, 42.9% and 27.9% of their disposal incomes on food and entertainment bills. The low- and medium- income consumers' bill would be much bigger if they did not supplement their food expenditures with rural and urban foodstuffs.

Table 6.11 presents the breakdown of food and entertainment expense components. Rural and Urban food sources are of minor importance to high income consumers. Low- and Medium- income consumers supplement their food and entertainment bills by more than 30% and 25% from the above sources respectively.

6.4. GENERAL COMPLAINTS REGARDING RETAIL FOOD SUPPLY AND SERVICES OFFERED TO CONSUMERS

The main problems faced by consumers at retail level are tabulated below.

Table 6.12.: COMPLAINTS ABOUT FOOD SUPPLY AND SERVICES OFFERED BY RETAILERS

Complaints	Frequency	%
High food prices	35	27.4
Inefficient food distribution Systems	30	23.4
Food unavailability and shortages	28	21.9
Low quality food products	25	19.5
Inadequate services and facilities	10	7.8
Total	128	100.0

Source: Author's Consumer Survey, April - June, 1977

With the exception of Otiende, Shauri Moyo, Riruta, Nairobi South B, Kawangware and Kariobangi, consumers in the rest of the locations are generally dissatisfied with food retail marketing system.

Prices:

Consumer general consensus reveals that food prices especially in Embakasi, Mbotela, Jericho and Pangani locations are high. This is contributable to inadequate retail outlets, high wholesale prices and transport costs. On the contrary, consumers in Dagoretti, Kawangware, Kariobangi, Uthiru and Waithaka, seem to be satisfied with food prices in their respective areas. This is mainly due to the fact that there are large numbers of competing Kiosk-retailers, hawkers and market food tenants.

Food Shortages:

As indicated below, food shortages mainly occur in horticultural and other products that are most venerable to weather conditions.

Table 6.13: THE RELATIVE IMPORTANCE OF FOOD SHORTAGES BY FOOD GROUP

Food Group	Frequency	%	Main Food Products
Fruit and Vegetables	237	63.0	Tomatoes, Cabbage, Sukuma Wiki, Carrots, Mangoes, Beans and Pulses.
Cereal and Cereal Products	52	13.8	Maize flour, Rice
Meat and Fish	33	8.8	Mainly Fish, Meat
Milk and Milk products	22	5.8	Fresh Milk
Fats and Oils	21	5.6	.....
Others	11	3.0	.....
Total	376	100.0	

Source: Author's Consumer Survey, April - June, 1977

About 65% and 20% of the consumers reported the respective root causes of food shortages to be draught and traders' inefficiency. However, residents in Jericho, Ngara, Waithaka, Uthiru and Embakasi expressed great dissatisfaction with the food distribution system. Generally low-income consumers complain of low quality meat supplied to them by butchers.

Food Products and Services offered:

Only 23.4% of the consumers in Shauri Moyo, Pangani, Nairobi South B and Kawangware locations expressed satisfaction with product ranges and services offered by their residential retailers. There is a lot to be desired with regard to services like storage, home delivery, wrapping and packing in the rest of locations (see Table 6.14).

Table 6.14: DESIRED RETAIL SERVICES BY CONSUMERS

Facilities and Services	Frequency	%
Cold Storage	44	52.4
Extended business hours	13	15.5
Wrapping and Packing	15	17.8
Home delivery	4	4.8
Others	8	9.5
Total	84	100.0

Source: Author's Consumer Survey, April - June, 1977

As illustrated in Table 6.15., consumer response revealed that certain foods are not stocked in some retail outlets in their respective residential areas.

Table 6.15: DESIRED FOOD PRODUCTS IN VARIOUS RESIDENTIAL RETAIL OUTLET UNITS

Food Products	Frequency	%
Fish	36	26.7
Baby foods (tinned)	23	17.0
Rice	22	16.3
Meat	15	11.1
Fats and Oils	9	6.7
Horticultural Produce	13	9.6
Others	17	12.6
Total	135	100.0

Source: Author's Consumer Survey, April - June, 1977

For example, 44% of the consumers interviewed would like to see fish and baby food products stocked.

CHAPTER 7

SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1 SUMMARY

7.1.1 NAIROBI CITY RETAIL OUTLET DISTRIBUTION

This study is based on secondary and primary data. Secondary data was obtained from various City Council Offices which included the Department of Housing and Social Services, Food Retail Licensing Office, Market Superintendent and various Market Assistant Superintendents' offices, Urban Study Group, and the Central Bureau of Statistics. Personal interviews involving kiosk-retailers, ambulatory vendors (hawkers), grocers and consumers drawn from 21 city locations, constituted the primary data.

From the available secondary data, nine non-specialized types of retail outlets are identified. These are defined on the basis of their structure, size and main type of food product sold. Of the nine food retail outlets, ambulatory vendors, grocers, market tenants and greengrocers account for 95% of over 8,500 registered retail units in the city. The rest is claimed by self-selection stores, butcheries icecream and dairy bars.

Most of the retail outlet units are found in J, L and G Zones. J and L are densely populated low-income areas claiming a 50% outlet share while G is the City commercial centre with 14% of the total retail units. The medium- and high-income locations

have the lowest retail outlets approximately 12 and 8 percent respectively. However, the retail units in latter two income brackets are large in size, offer many product ranges, and have high population catchments per unit. Locations in zones I and N have least outlets since the residents are farmers.

The distribution of retail outlets depends on the socio-economic characteristics of the location's residents. Eighty nine percent of the ambulatory vendors with the largest market share of 27%, operate in low-income locations, newly established estates and outside public retail markets. Many of these operate unlicenced and in open-air spaces under unsanitary conditions. Most of the grocery shops (dukas) operate in low- to medium-income locations especially A, B, J, L and O zones. The business sizes and populations catchment per outlet unit progressively increase with the increase in incomes of consumers. The greengrocery shops, though fourth largest food outlet type, have diminished in importance due to hawker and market tenant competition. The prevailing permanent stores are scattered in medium and high income locations. Ninety percent of the greengrocers found in low-income areas conduct their businesses in temporary cardboard-built kiosks.

There are two types of public retail markets in Nairobi City. 80% of the market stalls are located in the low-income Eastlands' locations. The informal markets claim a 21% market share and 72% of the total

market food stalls. The existing 12 formal (City Council) retail markets, claim a lion market share with unfortunately only 28% of the stalls selling various food products. Within formal markets, 52% of the stalls are empty compared to 0.8% found in informal markets. Generally, within the two market types, 41% of the stalls are empty, 21% sell non-food products and 38% sell foodstuffs to City consumers. Eight more formal markets are planned to replace informal ones in low and medium income locations.

Bakeries, self-selection stores, ice cream and dairy bars are mainly found in C and E high income zones. Butcheries are mainly located in A, B, J and L low and medium income zones.

7.1.2 SOURCES OF FOOD PRODUCTS

Fruit and vegetables consumed in Nairobi come mainly from the City neighbouring districts. Distant areas like Nakuru, South Nyanza, Kisii, Coast Province, Uganda and Tanzania augment the horticultural produce supply to the City. About 80% of the retailers get 58% of fruit and vegetables from Wakulima Wholesale Market. The rest is obtained from City Centre wholesalers, and periodic peri-urban farmer markets. There are no intermediary agents between the three horticultural produce retailer sources.

The main prepacked food products sources are City Centre wholesalers, distributing agents and

wholesale/retail units in the outskirts of Nairobi. Each source claims the respective retail market share of 48, 32 and 20 percent. City Centre wholesalers supply to retailers sugar, cereal and cereal products, fats and oils, beans and pulses. The distributing agents are mainly engaged in supplying confectionery, bread, beverages, milk and milk products. The latter source acts as an intermediary in supplying all foodstuffs to retailers.

7.1.3. RETAILERS' PROCUREMENT COSTS AND NET MARGINS

Public vehicles, handcarts and distributing vans constitute the main modes of transport used by the City retailers. Usage of these modes varies with the type of retailers. For instance, 40% of grocers depend on distributing vans, 38% kiosk-retailers on public vehicles while 49% of hawkers use handcarts as their principal modes of transport. Retailers in low income areas incur higher procurement costs than those in medium and high income areas. This is due to low-income retailers' frequent purchasing trips, low volumes of trade, lack of vertical coordination and the nature of the food products they sell.

Retailers' net margins in various City locations are not significantly different. However, retailers in low-income areas especially in J zone have least net margins and highest costs. Retailers patronized by medium and high income consumers incur least procurement costs, have large sale turnovers and are

able to reap the economies of scale.

7.1.4. FOOD RETAIL OUTLET AND REGIONAL DEVELOPMENT

With the exception of kiosks, all other food retail outlets will positively increase in numbers. Pronounced increases will be in establishment of self-selection stores, butcheries, formal markets and informal or open-air hawkers. While the overall retail growth rate is estimated at 4%, Dagoretti retail outlet growth will be around 8% per annum. Both City Centre and Southern Nairobi regions will have least outlet increases.

7.1.5. CONSUMERS' PROCUREMENT ACTIVITIES, COSTS AND COMPLAINTS

The general consumer concensus reveals that more than 70% purchase foodstuffs outside their locational outlets. Most of them claim residential outlets to be inconvenient, food prices high and product ranges offered limited. Consequently, main consumer sources of foodstuffs are City Centre and public market retail outlets. Notably consumers in low and medium income areas of P, J, A and L shop outside their residential areas.

Significantly, the Kenya Bus Service is the main mode of transport for consumers. Consumers' transport costs in procuring their foodstuffs is small since most purchases are done while coming from places of work. However, high income consumers travel shorter distances, spend less time shopping than low and

medium income earners.

Low, medium and high income consumers spend 55, 43, and 28 percent of their respective disposal income on food and entertainment bills. More than 70% of the consumers complain of high food prices, inefficient food distribution systems, inconvenient outlets and food shortages in cereal products and fruit and vegetables.

7.2 CONCLUSIONS

Analysis of the food retail marketing system leads to a conclusion that it performs under very difficult conditions. The locational retail outlet units are inefficient lacking both vertical and horizontal coordination. As a result the procurement costs of food retailers and consumers especially in low-income areas are high. The overall retail system lacks proper planning and a central organisational structure. Registration procedures for retail units are cumbersome and time consuming. Despite the modestly low registration fees, the strenous bureaucracy in part explains why 42% of the total retail outlets operate unlicenced. Illegal retailers' activities are prevalent mainly in low-income areas, newly established estates and outside established formal markets. The inadequate and inconvenient retail units characterized by limited product ranges have led most consumers to purchase foodstuffs outside their residential areas.

Though 69% of City food retailers operate in low/medium income zones of A, B, J and L, the distant City Centre wholesalers still serve as their main suppliers. Consequently, the high retailers' procurement costs and consumers' food prices in these areas. Grocery distributors have a relatively strong vertical and horizontal coordination in their marketing channels. The presence of wholesale/retail stores within grocery marketing chain explains the grocers little variance in their locational procurement costs. However, the existing stores are few and have made serious in-roads in the retail system by overcharging the small scale operators.

The incidence of empty market stalls in low-income formal markets is principally due to lack of vertical coordination within fruit and vegetable wholesale and retail marketing channels. The only horticultural wholesale market is small and congested. The other few established sources are distant to most Nairobi retailers who operate mainly in low-income locations. Other caustive reasons for empty stalls in these markets include:-

a) lack of an effective method to control the largely unlicenced competing ambulatory vendors. Hawking outside these markets saves rent and puts retailers in convenient reach of consumers.

b) poor planning and market construction features. Informal markets which are pointers to formal City

market planners and constructors, are often demolished to be replaced with less spacious markets. No consideration is given to what would become of former established informal market participants. Storeyed markets are inconvenient to both food retailers and consumers.

c) lack of market research to assess potential market retailers, consumers and effects of other locational foodstuff retailers to market participants and

d) high stall rents charged in permanent markets compared to those in open-air and informal markets. Rents in open-air markets range from 50 to 5.2 percent of those charged in permanent markets. Rents in informal markets are non-existent.

The role of Nairobi City Centre as the principal source of foodstuffs to retailers and consumers is most likely to decline in the near future due to:-

i) need to increase the service sector specialization by construction of national and regional administrative departments, hospitals, schools, expanding multinational commercial companies, tourist trade and activities. Construction of luxurious shops, and entertainment facilities like cinema halls, swimming pools and recreation parks will require more space in the already congested City Centre.

ii) convenient retail outlets and residential areas which must be built to cater for the future anticipated explosive urban working population and

iii) need to build wholesale stores to serve distant location retailers in order to keep consumer food prices fairly similar.

The average annual City population is expected to grow at a rate between 6 and 8 percent. Rapid population growths will markedly be noted in Western, Northern and Eastern Nairobi regions. These explosive rates are not comparable to the slow food retail outlet annual growth rate projected at 4%. An in depth analysis of the average City income per capita growth rate, the present income distribution and inflation effects, the consumer food prices will increase at a nominal annual rate of 10%. The large city population increase is expected to involve people in low-income bracket. This will lead to establishment of traditional small-scales outlets selling high priced, low quality and less nutritive foodstuffs.

In a nut shell, the present food retail outlet and residential estate development plans are not aimed at reducing food procurement costs. Low-income retailers and consumers incur higher procurement costs than those in medium and high-income areas. Lack of proper planning for food outlets and external aid, has hindered the growth of a strong food distribution system. The emergence of competitive wholesale and modern convenient retail outlets is low. Though the public food retail markets and ambulatory vendors are most appropriate food outlets for low-income consumers, the two are the most

disorganized and least convenient to consumers. The City Centre grocery shops and self-selection stores identified by their high quality food products and relatively low prices serve mainly the medium and high income consumers.

7.3 RECOMMENDATIONS

Realizing the chaotic and confused nature of the locational food retailing system, the following suggestions aiming at streamlining the system, reducing food prices and procurement costs of retailers and consumers are recommended:-

1. The Licensing Department should be autonomous with all officials housed in close premises. Stationing Assistant Health Inspectors in various locations to await applicants' and Chief Health Inspector's instructions is expensive, time consuming and encourages favouritism in issuing food retail licences. Few health inspectors should be employed at the Licensing Department Headquarters and promptly assess the required facilities. The Hawker-Licensing Boards should be abolished. Hawker-licences should be offered liberally and applicants forced to operate only in predetermined areas in various City locations. This would reduce the present excessive unlicenced ambulatory vendors, increase City Council revenues, provide information and guidelines to locational retail outlet planners and improve the quality of foodstuffs sold.

2. The food retail outlet planners should establish spacious public retail markets, grocery shops,

wholesale depots and encourage trader cooperatives among small scale operators. These would bolster the weak vertical and horizontal coordination existing in distributing various food products to City locations. In addition, help to counteract the expected future rise in kiosk and ambulatory vendor activities.

Establishment of formal markets with the aim of absorbing hawkers, as indicated on pages 67 and 69, provides the best employment facilities and in turn help raise the standard of products offered to various City location residents. However, in the existing and future planned public retail markets, the following are recommended to reduce the prevailing high incidence of empty market stalls:-

(a) voluntary trader committees should be formed. With the aid of City Council askaris, the committees should devise an effective control method to protect market participants from competing hawkers.

(b) open-air markets on the model of Eastleigh should be built. Facilities like toilets, water, light, dustbins, askaris, cleaners and sweepers provided by City Council market department. Less spacious permanent and storeyed markets are inconvinient to retailers and consumers.

(c) stall rents should not only be based on recovering construction costs but also on the intensity of business the tenants are likely to get in each particular location. The effects of competing hawkers and other food retailers to the market participants should also be assessed.

(d) wholesaling units should be encouraged by side or within the markets. These could be supplied directly by Wakulima and City Centre wholesalers, trader/transporters and peri-urban farmers. The established market wholesalers should strictly supply market tenants. The fruit and vegetable marketing chain would be strengthened and market tenants' procurement costs reduced. Other benefits include:-

(i) increased horticultural produce flow within the City.

(ii) increased tenants' sale turnovers and net margins as they can offer low-priced and better quality products to consumers.

(iii) tenants would be in position to effectively compete with ambulatory vendors and pay their monthly rents.

(iv) improved produce quality through grading and standardized units of measurement arising from tenants competing with each other to satisfy increased consumer demands.

and (v) reduced procurement costs incurred by consumers especially in low-income areas where most markets are most appropriate.

3. In light of the declining role of City Centre as the main retail foodstuff source, there is need to look to other locations as alternative sources. Few existing grocery wholesalers overcharge small scale retailers and indirectly increase food prices. To combat this monopoly, financial lending institutions, in consultation with City Council planners, should provide "soft" loans to grocers establishing wholesale stores. The assistance should especially be given to grocers in low-income areas like Embakasi, Kariobangi,

Dagoretti, and Shauri Moyo. Establishment of planned locational wholesale depots will reduce distributing agents' transportation costs and put an end to small scale retailers' exploitation. In turn, procurement costs of retailers will be reduced and investment in improved foodstuff qualities encouraged. The dependence of food retailers on expensive "private taxis" (matatus) would be reduced since retailers would use cheaper Kenya Bus Service in ferrying their foodstuffs from nearby wholesale depots.

In case of fruit and vegetable sources, peri-urban farmer markets like Kawangware and Wangige should operate as daily wholesale markets. These would supplement the congested Wakulima Market. Kawangware would cater for Eastern, Wangige for Northern while Wakulima serves retailers from Western and Southern Nairobi regions. However, the peri-urban markets should be fenced, counters on which to sell horticultural produce erected from produce cess funds. Apart from strengthening the marketing chain, the quantity and quality of horticultural produce to Nairobi consumers would be greatly improved.

4. The role played by small scale retailers to deliver foodstuffs to consumers is real and significant. If these retailers were properly managed, they could achieve a satisfactory level of productive efficiency. The policy of harassing ambulatory vendors and kiosk retailers without alternative business areas and financial assistance is wrong. Specific and strategic areas in various locations should be allocated to small scale retailers. At least two City Council askaris to police each location's illegal hawkers should be employed.

The illegal retailers, if caught, should pay the hawker licence fee and authorized to operate in the defined areas. Confiscating foodstuffs they are selling that day, only makes them shift to other places. It is recommended that simple lasting structures should be built by City Council and hired out at reasonable rents to kiosk-retailers and static hawkers. With the concentration of these structures in strategic areas, trader cooperatives can be formed and supplied with foodstuffs by distributing agents and established locational wholesale stores. In time, retailers will pool together their meagre capitals and gain access to financial lending institutions. Other benefits would include reduced procurement costs, improved food quality and sanitary conditions and encouragement towards erecting modern retail premises.

5. The development of self-selection stores is inevitable in the near future. Presently, their product ranges are tailored to specific demands of medium and high income consumers. A concentration of these stores in low-income areas without modifying the product ranges offered, will lead to inappropriate economies of scale. As such pilot projects covering low-income areas like Dagoretti, should be launched to determine the effects of establishing the stores, consumers' demands and purchasing patterns. Generally special attention should be given to Dagoretti where the population growth rate is estimated at 10% and that of food retail development is about 8%. The retail growth rates in other City regions are modest and could be contained if the present retail markets are improved and developed, small scale operators aided and marketing channels strengthened.

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APPENDIX II

QUESTIONNAIRES ON LOCATIONAL ASPECTS OF FOOD RETAILING

General Introduction

Good Morning/Afternoon Sir/Madam, My name is ..... and I am a student from the University of Nairobi, carrying out a survey on location food retail outlets in the City. I am trying to discover your sources of supply, transport costs, margins, problems you face and what assistance you think you need to solve them. I am requesting you to answer the questions on this form. Please serve your customers first during the course of the interview. Thanks.

(i) GENERAL TRADER (GROCERS) QUESTIONNAIRE

Name of Interviewer .....

Name of Interviewee .....

Position of Interviewee (owner, shop attendant, helper)

.....

Name of business .....

Location of the business .....

Date .....

Q. 1 (a) At what time do you open each morning?

..... a.m.

(b) When do you close in the evening? ..... p.m.

(c) What are the major reasons why you do not open longer hours? .....

.....

.....

(d) Do you open on Sundays? YES/NO

Q. 2 What hours of the day do you get most customers?

Morning .....

Afternoon .....

Evening .....

For Questions 3 - on supply source
4, Frequency of food purchase
5, Modes of transport
6, Transport costs and time taken

} Fill in the table below

Food Product	Source of Supply	Frequency of Supply/Purchase	Mode of transport used	Transport Cost/Trip (KSHS)	Time Taken	Other Costs/ trip
	1. Wholesaler in town 2. Wholesaler same Market area	1. Daily 2. Weekly 3. Twice weekly 4. Fortnightly 5. Monthly 6. Any time	1. Own Vehicle 2. Own Bicycle 3. Hired Car 4. Hired handcart 5. Public vehicles 6. Any others			1. Loading 2. Off-loading 3. Delivery 4. Others
Fruits and Vegetables						
Milk:Fresh/Dried Cheese/Cream						
Cereals & Cereal products: Maize Rice and Wheat Others.						
Beverages:Sodas Beer,Cocoa, Tea and Coffee						
Fats & Oils: Butter, Margarine & Cooking Oil						
Sugar						
Beans and Pulses						
Confectionery & Bakery:Bread/Cakes Biscuits						

Q. 7. What are your average sales and expenditures? (Fill in the table below).

Items	KSHS/day	KSHS/month
Total sales		
Food sales		
COSTS		
Foodstuff supply		
Total Transport		
Storage costs		
Total labour		
Rent		
Electricity		
Water		
Wastage and spoilage		
Total costs		
Balance		

Q. 8. What is the value of your other regular expenditures you incur while running your business per month? KSh. .....

Q. 9. (a) What is the size of your shop? .....sq.m.

(b) What is the size of your store? .....sq.m.

Q.10. (a) What is the estimated value of your stock? KSh. .....

(b) What is the estimated value of the equipment in the shop? KSh. .....

Q. 11 What facilities do you have in your shop?

(Fill in the table below).

Facility	Value KSh.
Fridge	
Telephone	
Wheelburrow	
Display shelves	
Cash register	
Car	
Music in the Store	
Bicycle	
.....	
.....	
Total	

Q. 12 (a) Do you have regular customers? YES/NO

(b) If YES, what areas of the City do they come from?

Same location	
Neighbouring estates	
All over Nairobi	
Don't know	

Q. 13 What level of schooling and training do you have?

Q. 14 What is your approximate age? (years) .....

Thank you Sir/Madam

(ii) HAWKER/KIOSK-RETAILER QUESTIONNAIRE

Name of Interviewer .....

Name of Interviewee .....

Type of business (Hawker/Kiosk) .....

Position of Interviewee (owner/helper/relative etc)

.....

Location .....

Date .....

Q. 1 In what area(s) do you usually sell? .....

.....

Q. 2 Where and how frequently do you buy the following?
(Fill in the table - behind)

Q. 3 Complete the table below regarding your sales and expenditures in the past week?

ITEM	CONVERSION	MONTHLY SIZE KSHS.
Total Sales KShs. ... per day		
COSTS:		
Food supply cost KSh..... per day		
Total Transport " ..... " "		
Water costs " ..... per month		
Labour " ..... "		
Licence " ..... " Year		
Wastage " ..... " day		
Spoilage " ..... " day		
and Spillage " ..... " day		
Other costs " ..... " day		
Total Costs KSh..... " day		
Balance		

Q. 2. Where and how frequently do you buy the following?

ITEM	SUPPLY 1. Wakulima 2. Wholesalers 3. Other retailers 4. Farmer	HOW FREQUENT 1. Daily 2. Weekly 3. Twice a week 4. Fortinightly 5. Monthly	WHAT QUANTITY	VALUE KSHS.	TRANSPORT 1. Handcart 2. Public vehicle 3. Bicycle 4. Others	CHARGES/ TRIP KSHS
Fruit & Vegetables:						
Cabbages						
Potatoes						
Bananas						
Onions						
Mangoes						
Beans/Peas						
Carrots						
Tomatoes						
Cereals:						
Maize flour						
Wheat flour						
Rice						
Others (flour)						
Fats & Oils:						
Cowboy						
Kimbo						
Margarine						
Salad						
Liquid Cooking oil						
Milk						
Eggs						
Bread & Biscuits						
Beans & Peas						
Other Foods						

Q. 4 What are the 2 major problems in your business?

1. Attract customers
2. Shortage of supply
3. Shortage of capital
4. Many competing traders
5. High wastage and spoilage
6. Others .....
   .....

Q. 5 What are you doing to solve them?

.....

.....

Q. 6 What assistance do you need to help you in your business?

.....

.....

.....

Q. 7 What level of education and training do you have?

.....

.....

.....

Q. 8 What is your approximate age? ..... Years

Thank you very much Madam/Sir.

(iii) GENERAL CONSUMER QUESTIONNAIRE

Name of Interviewer .....

Name of Interviewee .....

Occupation (Head of family/wife/servant) .....

Location .....

Date .....

Q. 1 (a) Do you always buy your foodstuffs in this location? YES/NO

(b) If NO, in which other locations do you buy?

Locations	Distance (Kms)	Time taken	Transport cost

Q. 2 Why do you buy foodstuffs from other locations?

Not available here	
Lower prices elsewhere	
Credit facility elsewhere	
On my way from work	
Others	
.....	
.....	

Q. 3 What times of the day do you usually purchase your foodstuffs?

Morning	
Afternoon	
Evening	

Q. 4 (a) Do you buy your foodstuffs in this location from one particular

Grocery shop	
Kiosk	
Supermarket	
Market	
Hawker	

?

(b) If yes, why do you prefer buying from one source?

Gives credit	
Friendly and adequate services	
Lower prices	
Near my home	
Near place of work	
The only outlet here	
All goods available	
Has parking space	

(c) If No, why do you prefer buying from different sources?

Limited product ranges	
Different prices	
Different services	
Others	
.....	
.....	

Q. 5 What modes of transport do you use when purchasing your foodstuffs?

	Distance (Kms)	Transport cost	Time Taken
Own vehicle			
Bus			
Private/Co. Car			
Private taxis (matatu)			
Walk			

Q. 6 (a) Do you get foodstuffs from

	YES	NO	Value
Urban shamba			
Rural area			

(b) If Yes, what do you think is their montly value in KSh.?

Q. 7 Approximately how much money do you spend on food and entertainment per month? KSh. .....

Q. 8 How much is your monthly incomes:

Head of family KSh. .....

Wife KSh. .....

Family members KSh. .....

Total KSh. .....

Q. 9 (a) Do you at times get food shortages in this location? YES/NO

(b) If Yes, what are the common foods you get shortage in? .....

.....

(c) What do you think are causes of their shortages?

1. .....

2. .....

3. .....

4. .....

Q. 10 (a) Are prices in this location higher or lower than in other locations? Lower/higher ....

(b) If lower, why do you think they are lower?

.....

.....

(c) If higher, why do you think they are higher?

.....

.....

Q. 11 (a) Are you satisfied with

(i) food products offered by retailers?

YES/NO

(ii) services offered by retailers?

YES/NO

(b) If No, what products would you like to see stocked? .....

.....

what services would you like offered?

.....

.....

Q. 12 What are your general complaints regarding food supply system in this location ? .....

.....

.....

Thanks very much Madam/Sir.

APPENDIX III (i) STOCK, EQUIPMENT VALUE AND SIZE OF GROCERY SHOPS BY LOCATION

Locations	Stock Value (Ksh.)	Equipment Value (Ksh.)	Shop Size (Sq.Metre)	Store Size (Sq. Metre)	Total Size (Sq. Metre)	Stock/Sq. Metre (Ksh.)	Equipment/ Sq. Metre (Ksh.)
Uthiru	62,700	26,787	170	71	241	260	111
Dagoretti	11,000	4,497	17	4	21	516	214
Waithaka	19,500	82,910	40	12	52	378	1594
Riruta	26,333	4,900	27	9	36	729	136
Kawangware	234,667	43,990	34	138	172	1358	256
Kibera	46,667	5,140	180	16	196	239	26
Nairobi Hill	46,667	13,442	44	11	55	896	244
Nairobi West	61,667	17,477	63	9	72	856	243
Otiende	135,000	122,100	42	57	99	1359	1233
Nairobi South B	88,333	53,850	327	36	363	243	148
Mbotela	28,333	15,344	30	10	40	707	384
Maringo	19,667	6,657	22	4	26	750	256
Jericho	18,333	13,013	35	10	45	411	289
Shauri Moyo	20,000	7,913	30	3	33	606	240
Pangani	35,000	37,027	37	8	45	776	823
Ngara	35,000	7,889	189	44	233	150	34
Ziwani	50,000	12,545	31	7	38	1312	330
Pumwani	34,333	23,422	46	10	56	616	418
Kariobangi	65,000	20,407	58	15	73	887	280
Embakasi	16,750	22,962	23	6	29	584	792
Average	52,748	27,114	77.4	22	96.3	682	403

Source: Food Retail Outlet Survey, April - June, 1977

APPENDIX III (II)

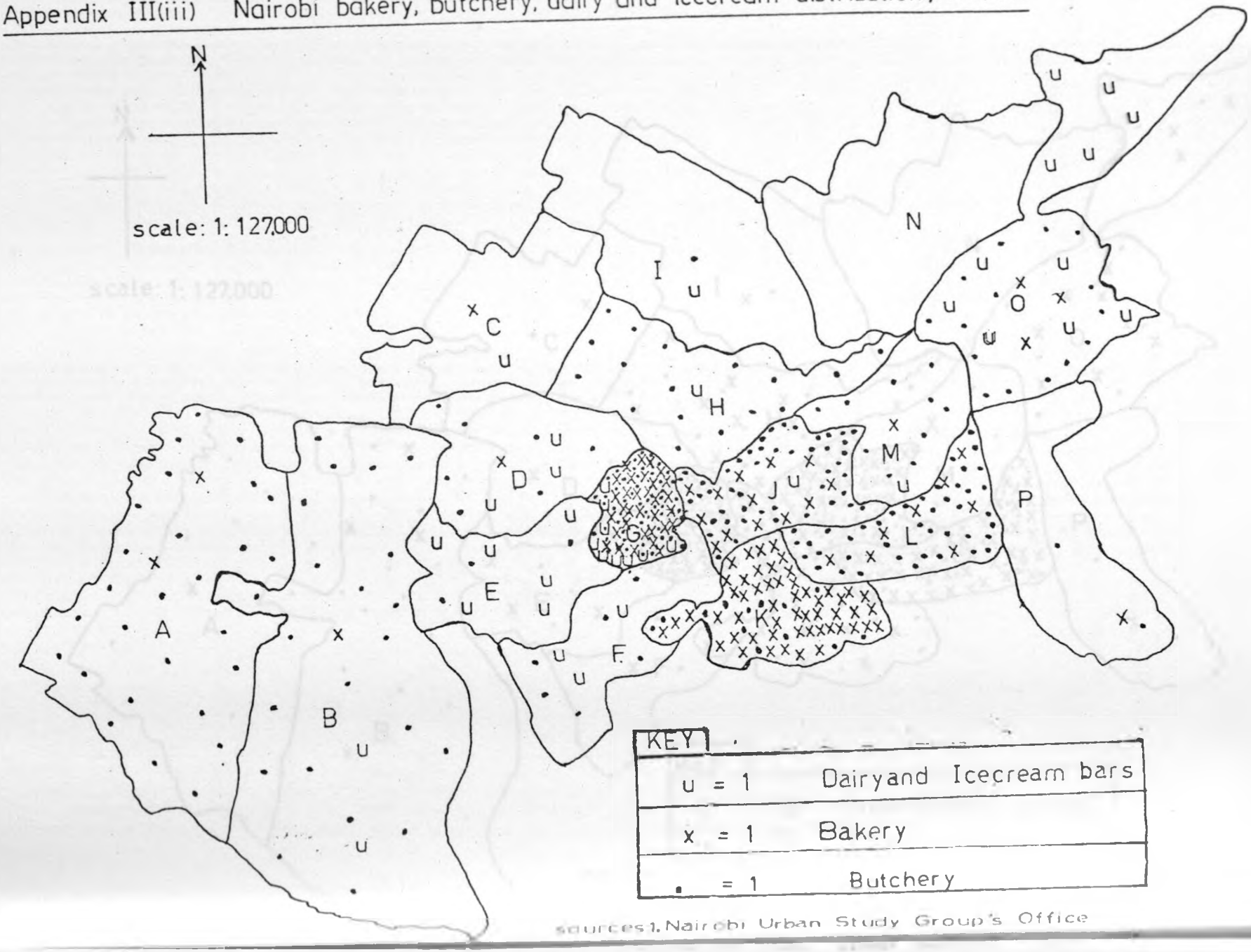
FOOD RETAIL DISTRIBUTION, 1976/77 BY LOCATIONS

LOCATIONS	Bakeries	Butcheries	Dairy & Ice Cream	Self Service stores	Green-groceries	Grocers	Hawkers	Market Food-stalls	Total Units	Zone
Kariru *	-	7	-	-	-	14	21	27	69	
Dagoretti Market	-	10	-	-	-	10	-	-	20	
Dagoretti Corner *	2	6	1	-	6	71	4	46	135	A
Waithaka *	-	2	-	-	4	4	-	-	10	
Mdumbuini	-	3	-	-	2	5	-	-	10	
Kangemi	1	7	-	-	17	12	3	40	80	
Riruta *	-	5	-	-	12	14	22	-	53	
Kasangware *	-	7	-	-	7	116	121	80	314	
Karen	-	-	2	-	2	2	1	10	47	B
Kabete	-	2	-	-	3	8	1	-	14	
Langata	-	1	-	-	3	5	2	-	11	
Hardy Estate	-	-	-	-	-	2	-	-	2	
Barton Estate	-	1	-	-	-	3	2	-	6	
Loresho	-	-	1	-	3	1	1	-	6	C
Spring Valley	1	1	-	-	2	2	1	-	7	
Kyuna Kaiete	-	-	-	-	-	-	5	-	5	
Bernard Estate	-	-	-	-	-	-	12	-	12	
Kileleshwa	-	3	2	-	4	14	12	-	35	D
Groganville	-	3	1	-	2	8	25	-	37	
Lavington	-	1	-	1	4	7	-	-	13	
Adams Arcade	-	-	-	-	-	5	13	-	18	
Hurlingham	-	-	5	-	-	-	1	-	6	
Kilimani	-	-	-	2	-	-	14	-	16	
Jamhuri *	-	-	-	-	8	3	-	-	6	E
Kibera *	-	2	-	1	18	3	4	300	328	
Thompson Estate	1	1	1	-	8	5	4	-	20	
Upper Hill *	-	-	-	1	1	1	22	-	25	
Woodly Estate	-	1	-	-	5	8	7	-	22	
Nairobi Hill *	-	6	3	1	11	18	15	-	54	F
Settlement Area	-	-	-	-	-	-	-	-	-	
City Centre	32	48	8	27	310	496	73	170	1174	G
Muthaiga	-	1	-	-	3	8	5	-	14	
Parklands	-	3	-	-	17	23	85	-	128	H
Westlands	-	13	1	1	78	65	24	82	264	
High Ridge	-	1	1	-	3	10	17	-	32	I
Karura Forest	-	-	-	-	-	-	2	-	2	
Eastleigh	3	23	1	3	302	344	108	271	1379	
Gorofani	-	-	-	-	-	-	2	74	76	
Kariokor	5	3	-	1	55	57	74	58	253	
Ngara *	-	2	-	1	5	16	77	-	101	J
Pumani *	2	13	-	1	79	148	80	150	469	
Pangani *	3	7	-	-	31	76	90	-	207	
Starehe	-	1	-	-	19	11	3	-	34	
Ziwani *	-	1	-	-	3	7	12	-	23	
Akimba Estate	-	-	-	-	-	-	2	-	2	
Industrial Area	46	1	-	17	56	32	266	-	418	
Madaraka	-	-	-	-	-	3	3	-	6	
Mariakani	2	2	-	-	1	3	2	-	10	
Moi Estate	-	1	-	-	-	4	-	-	5	K
Nairobi South B *	1	2	-	-	17	27	15	-	62	
Nairobi South C	1	2	-	-	8	6	31	-	48	
Otiende *	-	1	-	-	2	4	29	-	36	
Nairobi West *	2	4	-	-	20	42	39	-	107	
Bahati	-	6	-	2	57	32	75	195	367	
Nerambee Estate	-	-	-	-	-	-	5	-	5	
Jericho *	-	3	-	-	150	29	108	-	290	
Jerusalem	-	1	-	-	6	7	31	-	45	
Kaloleni	2	4	-	-	7	22	40	-	75	
Lumumba	-	4	-	-	6	16	22	-	48	
Maringo *	1	3	-	-	45	9	61	-	119	
Makadara	-	2	-	-	9	23	77	-	111	L
Makongeni	-	1	-	-	6	8	21	-	37	
Mbotela *	-	4	-	-	16	7	29	-	56	
Outering Estate	-	1	-	-	3	4	10	-	27	
Shauri Moyo *	5	6	-	-	96	41	41	133	322	
Uhuru Estate	-	4	-	-	18	13	31	-	66	
Doonholm 1 and 2	-	4	-	-	3	12	10	-	29	
New Mathare	-	4	-	-	-	-	70	67	141	
Mathare Valley	1	6	1	-	14	30	78	-	130	M
Garden Estate *	-	-	-	-	-	-	1	1	130	N
Kamiti	-	1	-	-	-	2	1	-	4	
Kariobangi *	-	13	2	-	101	110	58	156	440	O
Ruaraka	3	1	8	-	7	2	21	-	43	
Embakasi *	1	2	-	-	10	15	72	72	172	P
Dandora	-	-	-	-	-	-	5	-	5	
Total	115	267	40	41	1680	2103	2305	1950	8501	

* Denote areas that were subjected to the study

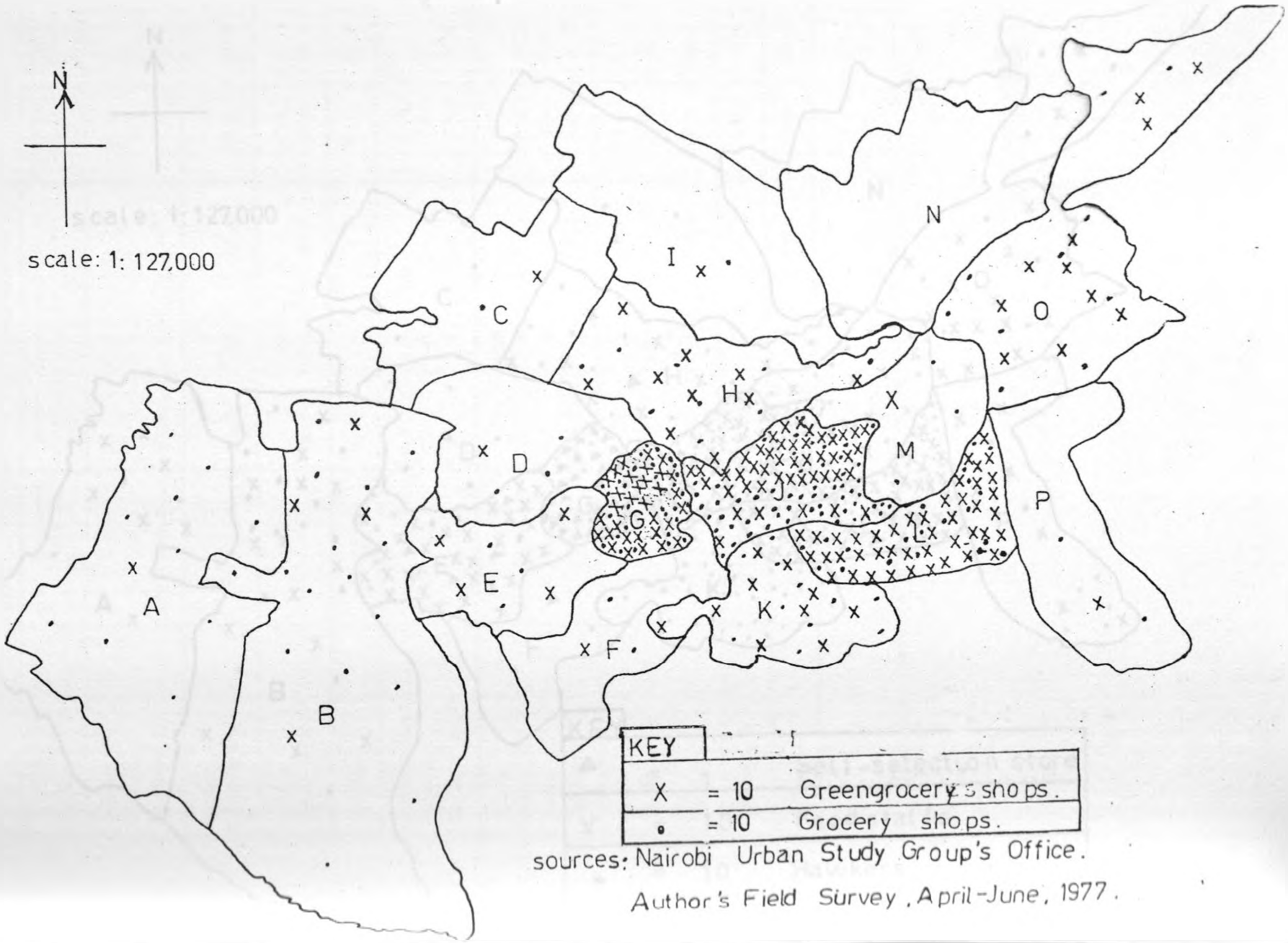
Sources. 1. Nairobi City Council Licensing Office, County Hall, 1976/77
2. Author's field survey, April - June, 1977

Appendix III(iii) Nairobi bakery, butchery, dairy and icecream distribution, 1976/77.



sources 1. Nairobi Urban Study Group's Office

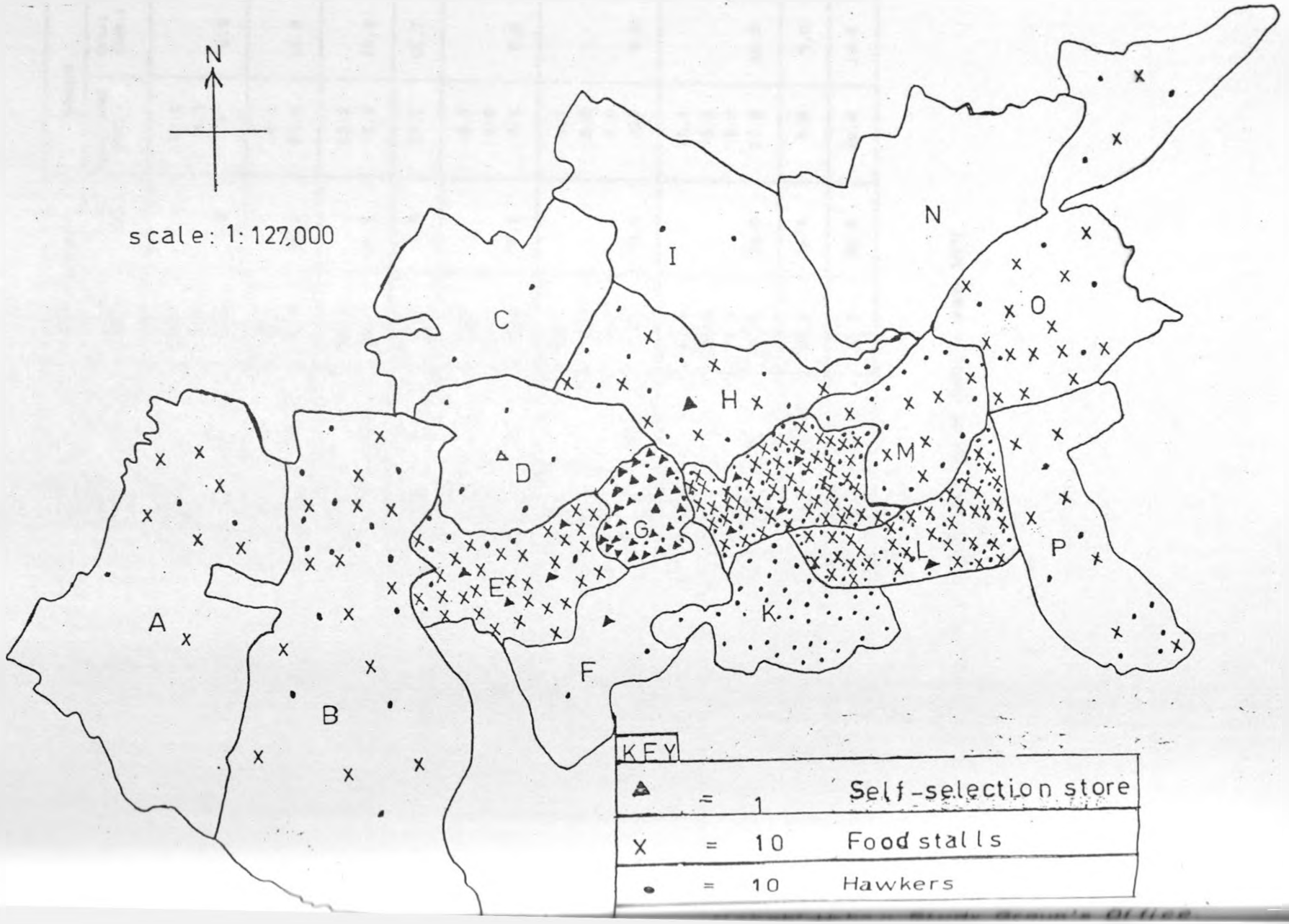
Appendix III (iv) Nairobi grocery and greengrocery shops distribution, 1976/77.



sources: Nairobi Urban Study Group's Office.

Author's Field Survey, April-June, 1977.

Appendix(III(v), Nairobi self-selection stores, food stalls, and hawkers distribution, 1976/77.



APPENDIX V (i)

AVERAGE TRANSPORT COSTS (BY LOCATION & ZONE) PER TRIP, 1977

TRANSPORT COSTS / LOCATIONS	ZONES	GROCERS		KIOSK-RETAILERS		HAWKERS	
		Locational (Ksh.)	Zonal (Ksh.)	Locational (Ksh.)	Zonal (Ksh.)	Locational (Ksh.)	Zonal (Ksh.)
Uthiru	A	45.2		10.7		10.0	
Dagoretti		17.8		8.6		8.3	
Waithaka		138.8	67.3	4.3	7.9	-	9.2
Riruta	B	66.7		8.6		6.1	
Kawangware		102.6	84.7	23.6	16.1	25.0	15.6
Kibera	E	66.7		21.4		22.2	
Upper Hill		-	66.7	19.3	20.4	2.4	12.3
Nairobi Hill	F	57.8	57.8	4.3	4.3	16.7	16.7
Nairobi West	K	77.8		8.6		3.3	
Otiende		83.3		21.4		8.9	
Nairobi South B		100.0	87	6.4	12.1	8.6	6.9
Ngara	J	41.7		10.7		5.7	
Ziwani		133.3		4.3		5.0	
Pangani		82.2		2.1		4.0	
Pumwani		50.0	76.8	7.1	6.1	3.3	4.5
Shauri Moyo	L	133.3		11.4		11.1	
Mbotela		55.6		21.4		5.0	
Maringo		81.4		8.5		8.0	
Jericho		77.7	87	32.1	24.3	17.2	10.3
Kariobangi	O	55.6	55.6	21.4	21.4	5.0	5.0
Embakasi	P	38.8	38.8	32.5	32.5	10.9	10.9

Source: Author's Food Outlet Survey, April - June, 1977

APPENDIX VI (i)

ALTERNATIVE CONSUMER FOOD SOURCES BY LOCATIONS

(i)

LOCATIONS	FOOD SOURCES
Uthiru	Town, Kawangware,
Dagoretti	Town, Kawangware, Quarry Rd. & Wakulima Market
Waithaka	Town, Kawangware,
Riruta	Kawangware
Kawangware	Town,
Upper Hill	Town, Hurlingham, Adams Arcade, ABC, Tesco
Kibera	Town, Adams Arcade,
Nairobi Hill	Town, Hurlingham, Adams Arcade, Otiende Quarry Road Market
Nairobi West	Town, Quarry Road and Kariokor Markets
South B	Town,
Shauri Moyo	Town,
Mbotela	Town, Joggo Road Market
Maringo	Town, Joggo Road Market
Jericho	Town, Quarry Road Market
Pangani	Town,
Pumwani	Quarry Road Market, Majengo
Ziwani	Town, Quarry Road Market
Ngara	Town, Quarry Road Market
Embakasi	Town, Shauri Moyo (Burma) Market
Kariobangi	Town, Quarry Road and Wakulima Markets

Source: Author's Consumer Survey, April - June, 1977

APPENDIX VI (ii)

MODES OF TRANSPORT IN PROCURING CONSUMERS' FOODSTUFFS FROM VARIOUS RETAIL OUTLETS

Modes of Transport / Locations	Own-Vehicle	Bus	Private taxis	Others
Uthiru	-	4	-	-
Dagoretti	-	4	-	-
Waithaka	-	4	3	-
Riruta	-	1	-	-
Kawangware	1	3	1	-
Upper Hill	4	-	-	-
Kibera	2	3	-	-
Nairobi Hill	1	2	-	-
Otiende	2	1	1	1
Nairobi West	3	4	1	1
South B	1	4	3	3
Mbotela	-	4	-	-
Maringo	1	4	-	-
Jericho	-	3	-	-
Pumwani	1	2	-	-
Pangani	2	3	-	-
Ziwani	1	3	-	-
Ngara	-	4	-	-
Kariobangi	-	4	-	-
Embakasi	-	4	-	-
Average (%)	11.6	54.5	. 18.7	15.2

Source: Author's Consumer Survey, April - June, 1977

APPENDIX VI (iii)

LOW-INCOME CONSUMERS' FOOD AND ENTERTAINMENT EXPENDITURES,(KSH.) 1977

Income/Expenses / Locations	Family income	Cash Food bill	Entertain-ment bill	Rural Food Value	Shamba Food Value	Total expenses	Expenses as % Total income
Uthiru	600	150	50	-	175	375	48.4
Kawangware	700	200	50	150	-	400	47.1
Kibera	600	500	100	200	-	800	100
South B	700	300	-	115	-	415	50.9
South B	600	200	180	-	-	380	63.3
Maringo	700	150	120	152	-	422	49.5
Maringo	700	200	160	125	-	485	58.8
Jericho	600	300	50	-	150	500	66.7
Pangani	500	100	130	120	-	350	56.5
Pumwani	500	180	20	115	-	315	51.2
Pumwani	600	150	100	118	-	368	51.3
Pumwani	700	200	50	125	-	375	45.5
Shauri Moyo	600	150	80	-	185	415	52.9
Kariobangi	700	160	40	-	-	200	28.6
Kariobangi	700	250	40	-	130	420	50.6
Embakasi	700	250	30	-	170	450	51.7
Average	638.5	215	75	76.3	50.6	416.9	54.5

Source: Author's Consumer survey,April - June, 1977

APPENDIX VI (iv)

MEDIUM-INCOME CONSUMERS' FOOD AND ENTERTAINMENT EXPENDITURES (KSH.) 1977

Income/expenses / Locations	Family income	Cash food expenses	Enter-tainment expenses	Rural food Value	Urban food Value	Total Expe-nses	Expendi-ture as % of dis-posal income
Dagoretti	1540	600	-	-	150	750	44.4
Dagoretti	1100	500	50	170	-	720	56.7
Dagoretti	900	400	70	160	-	630	59.4
Dagoretti	1700	500	50	-	100	650	36.1
Embakasi	1000	700	20	-	150	870	75.7
Embakasi	900	400	-	-	-	400	44.4
Embakasi	1080	350	-	-	120	470	39.2
Jericho	1200	500	50	100	-	650	50.0
Kawangware	750	150	250	-	150	550	61.1
Kawangware	1850	420	100	-	150	670	33.5
Kariobangi	900	150	50	120	-	320	31.4
Kariobangi	920	200	50	120	-	370	35.6
Mbotela	1500	250	50	150	-	450	27.3
Mbotela	1300	600	50	-	150	800	55.2
Mbotela	800	300	70	160	-	530	55.2
Mbotela	2000	500	70	-	100	670	31.9
Maringo	2000	320	100	115	-	535	25.3
Maringo	800	200	200	130	-	530	57.0
Nairobi Hill	850	300	50	-	150	500	50.0
Otiende	2400	900	-	-	160	1060	41.4
Pangani	900	400	70	117	-	587	57.7
Riruta	1500	250	30	-	300	580	32.2
Shauri Moyo	2000	120	100	240	-	460	20.5
Shauri Moyo	850	300	100	-	120	520	53.6
Shauri Moyo	1500	400	120	-	120	640	39.5
Uthiru	2300	300	100	-	100	500	20.8
Uthiru	1200	400	50	150	-	600	44.4
Uthiru	800	450	60	130	-	640	68.8
Waithaka	1000	200	100	-	250	550	44.0
Waithaka	900	150	50	-	250	450	39.1
Waithaka	900	100	50	-	200	350	31.8
Waithaka	2100	150	100	-	200	450	19.6
Ziwani	2000	400	200	200	-	800	36.4
Ziwani	2400	400	250	130	-	780	30.8
Ziwani	1900	400	70	180	-	650	50.2
Ziwani	1800	500	150	100	-	750	39.5
Kibera	800	200	30	150	-	380	40.0
Average	1360.5	361.1	78.6	70.9	78.9	589.5	42.9

Source: Author's Consumer Survey, 1977

APPENDIX VI (v)

HIGH-INCOME CONSUMERS' FOOD AND ENTERTAINMENT EXPENDITURES (KSH.) 1977

Income/expenses / Locations	Family income	Cash food expenses	Entertainment expenses	Rural food Value	Urban shamba food Value	Total Expenses	Expenditure as % of disposal income
Upper Hill	4200	900	100	-	150	1150	26.4
Upper Hill	4500	1000	-	-	200	1200	25.5
Upper Hill	3500	900	200	100	-	1200	33.3
Upper Hill	5050	1000	300	150	-	1450	27.9
Kibera	4200	1500	100	-	180	1780	40.6
Nairobi West	3500	700	600	-	-	1300	37.1
Nairobi West	2700	700	100	110	-	910	32.4
Nairobi West	3000	400	100	-	200	700	21.9
Nairobi West	2900	600	200	-	-	800	27.6
Nairobi West	3000	700	200	-	-	900	30.0
Otiende	2500	700	120	-	100	920	35.4
Otiende	2700	800	100	135	-	1035	36.5
South B	2950	200	200	-	-	400	13.6
South B	2700	300	200	110	-	610	21.7
Nairobi Hill	4500	600	150	100	-	850	18.5
Nairobi Hill	3700	700	-	-	100	800	21.1
Ngara	3000	700	100	-	300	1100	33.3
Ngara	5000	800	200	100	-	1100	21.6
Ngara	3300	600	200	200	-	1000	28.6
Ngara	5500	800	150	100	-	1050	18.8
Pangani	3000	800	250	-	-	1050	35.0
Average	3590.5	733.3	170	52.6	58.6	1014.5	27.9

Source: Author's Consumer Survey, 1977