The Spatial Structure of Food Commodities Marketing in Mbeya Municipality, Tanzania

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Abstract

This article discusses the necessary and sufficient conditions for the emergence of urbanism and proposes a theoretical framework for the study of one of the pre-conditions for the survival of urbanism in Tanzania. The parameters included in the model are sources of supply of the food commodities to the urban areas, the means of transport used in assembling the food products to the marketing outlets and the status of the marketing outlets within the urban areas. The results show that the sources of supply can be classified into local, regional and national scales. They show further that the motor vehicle has stamped its mark on the supply side of food commodities to the market outlets. The results show also that the status of markets within the urban areas of Tanzania has not yet been fully developed. Based on these results, it is concluded that the model provides an opportunity for a systematic analysis of the spatial structure of food commodities marketing in the urban areas of Tanzania.

Introduction

Urban geography witnessed a raging debate on the pre-conditions for the emergence and continued existence of urbanism which revolved around four main hypotheses[Davis,1959:60]. The first hypothesis stated that urbanism was a function of a conducive physical environment. The hypothesis says that urbanism could only emerge in an environment which contains the main elements of the life support system. The second hypothesis held that urbanism was a function of technological developments in a society. Since societal productivity is a function of technological innovations, this school of thought attempted to elevate itself above the other hypotheses in explaining the origin and continued existence of towns. The third hypothesis stated that urbanism was a function of a social surplus product. This

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hypothesis emphasized that it were only those societies which could set aside a social surplus product, basically surplus food products, that could entertain urbanism. The fourth hypothesis stated that urbanism was a function of a supportive social organisation. This hypothesis asserted that, even when a society could produce a social surplus product out of the three stated hypotheses, urbanism would still not emerge. The reason given for this was that a social surplus product tended to be produced in small quantities per producer and the producers are normally scattered over a very wide territory. It required a supportive social organisation to organise the production, mobilization, manipulation and concentration of a significant social surplus product over a narrow geographical area for urbanism to emerge and thrive. This hypothesis also elevated itself above all the others as the most important explanatory pre-condition.

Many authors [Smailes, 1953; Sjoberg, 1966; Harvey, 1973 and Carter, 1983] have contributed to this debate. An evaluation of these schools of thought has come to a conclusion that each of the four hypotheses had a grain of truth, although each tended to be one sided. The correct position is that each of the four schools of thought was necessary but, not sufficient condition for the emergence of urbanism. It is only after the four pre-conditions combine at a certain place and time that the necessary and sufficient condition for the emergence of urbanism is met [Harvey, 1973:238]. The implication of this reality is that the physical expression of urbanism is a town or an urban settlement. The other implication of urbanism is that, over time, more and more people become urbanites and, a reduced share of the people in the towns gain their livelihood directly from the land. The urbanites are unable to physically produce their own food within the urban area. They are forced to depend on adequate supplies from the towns trade area. It is, therefore, reasonable to agree that urbanism can only emerge and thrive in those societies which are able to produce, mobilize, manipulate and concentrate a significant social surplus product over a narrow geographical area. This condition encompasses all the four pre-conditions for the emergence of urbanism[Harvey,1973].

The acceptance of this explanation in the 1970s, notwithstanding, systematic studies on the spatial structure of the supply and marketing of food commodities in urban areas remained very weakly developed in urban geography. The aspect of food commodities marketing in urban areas, in particular, has tended to attract very little academic interest. The aim of this study is to propose a model for food commodities marketing in urban areas and test its potential in a selected urban settlement in Tanzania.

This article is organised into six main parts. Part one is the introduction. Part two is a display of the conceptual framework. Part three is a description of the study area. Part four covers methodology. Part five presents the empirical findings of the study. Part six covers the conclusions and a recommendation.

Conceptual Framework

The conceptual framework of this study is a flow-chart of food commodities marketing in urban areas. The model has four structural components which are organised into stages one to four (Fig. 1). The figure shows that the marketing of food commodities in urban areas in Tanzania comprises four structural components which are interconnected into four phases. Stage one shows the supply side of the flow chart. The supply side has three main sources, namely, the area comprising the urban area itself, the administrative region within which the urban area is located and the entire country and beyond. Stage two comprises the brokers. The brokers are businessmen who are stationed in the main markets of an urban area and these receive the bulk of the food commodities from the suppliers at the local, regional and national scales. The brokers act as control agents of the dynamics of supply and demand of food commodities within an urban area. Given the operations of an open market situation in Tanzania, the brokers of the different commodities play a unique role in organizing the flow of food commodities to the retailers.
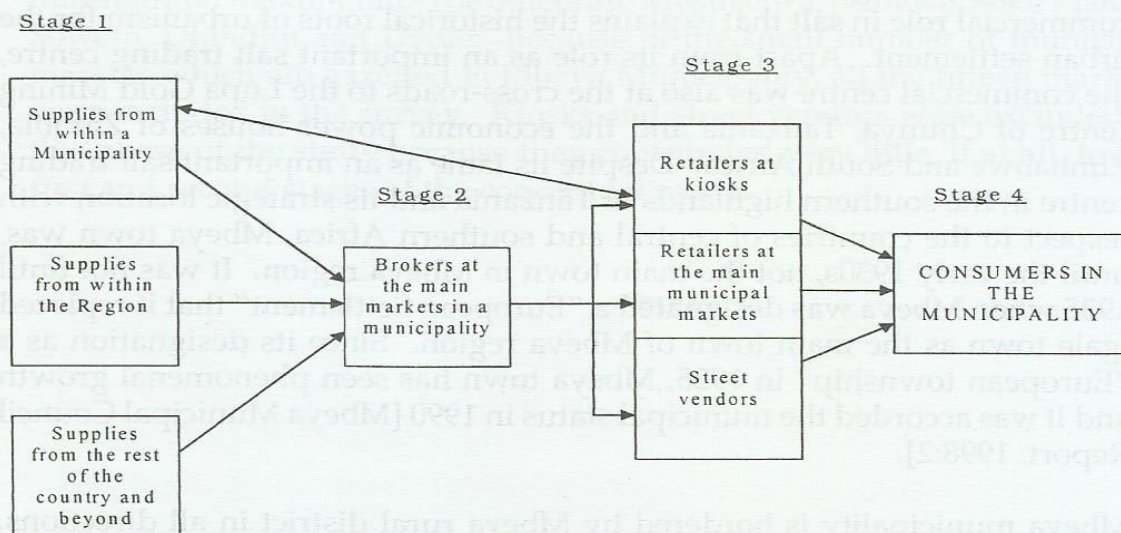

Fig.1. A Flow Chart Model for Food Products Marketing in Urban Areas in Tanzania

W.F. Banyikwa[1]

The third component is labeled the retail outlets stage. Three main retail outlets are suggested, namely, the established retailers at the main markets, the strategically located kiosks away from the main markets and the street vendors. These three retail outlets, come into direct contact with the consumers in an urban area. The fourth component of the flow-chart comprises the customers of all walks of life within an urban area. These consumers form the demand side of the flow-chart of food commodities marketing in urban areas.

It is suggested by the structural components of figure 1 that food commodities marketing in Tanzania is not an amorphous phenomenon. The linear arrangement of the four structural components of Figure 1 suggests that the marketing of food commodities in urban areas in Tanzania obey the laws of economic rationality. This model provides an opportunity to subject the marketing of food commodities in urban areas in Tanzania to a systematic economic-geographical analysis. This article confines itself to the first two structural components of the flow-chart.

The Local Setting of Mbeya Municipality

At the turn of the 20th century, Mbeya town had already become famous in its broader region for its trade in "Ibeja". Ibeja is the vernacular for salt in the local dialect. Because the British colonial administrators could not pronounce the word Ibeja, the word was corrupted to Mbeya. Henceforth, Mbeya became the official name for the urban settlement and the larger administrative region [Mbeya Municipal Council Report, 1998:2]. It is this commercial role in salt that explains the historical roots of urbanism for the urban settlement. Apart from its role as an important salt trading centre, the commercial centre was also at the cross-roads to the Lupa Gold Mining centre of Chunya, Tanzania and the economic power houses of Zambia, Zimbabwe and South Africa. Despite its fame as an important salt trading centre in the southern highlands of Tanzania and its strategic location with respect to the countries of central and southern Africa, Mbeya town was, until the early 1930s, not the main town in Mbeya region. It was not until 1935 when Mbeya was designated a "European Settlement" that it replaced Igale town as the main town of Mbeya region. Since its designation as a "European township" in 1935, Mbeya town has seen phenomenal growth and it was accorded the municipal status in 1990 [Mbeya Municipal Council Report, 1998:2].

Mbeya municipality is bordered by Mbeya rural district in all directions. The municipality covers an area of 185 km². The municipality is administratively divided into 36 wards. Six wards are rural, which are

128

Mwansekwa, Itagano, Mwansaga, Tembela, Itende and Iziwa. Sixteen wards are mixed and they are Iganzo, Itezi, Nsalaga, Igawilo, Iganjo, Uyole, Iduda, Ilomba, Mwakibete, Ilemi and Isyesye. Others are Iyela, Kalobe, Iyunga, Iwambi and Nsoho. Fourteen wards are urban, which are Sisimba, Isanga, Ruanda, Sinde, Maanga, Mbalizi road, Forest, Mabatini, Nzovwe, Majengo, Ghana, Nonde, Itiji and Maendeleo [Census Report, 2003:114].

Located 830 km south-west of Dar es Salaam city and port, the municipality serves as the main transit centre for cargo bound to central and southern Africa. It serves also as the main administrative, industrial, commercial and service centre of the southern highlands of Tanzania, in general, and Mbeya region in particular. Mbeya municipality is, therefore, the interface of activities undertaken in the rural and urban space economies of Mbeya region. In the interest of the conceptual model of this study, Mbeya municipality provides a good opportunity for a theoretico-statistical study on the supply of food commodities to the municipal markets of Mbeya municipality, in particular, and to the urban areas of Tanzania, in general.

The Selection of the Main Markets in Mbeya Municipality

Areas set aside for marketing activities in Mbeya municipality are gazetted by the Mbeya Municipal Council. The Mbeya Municipal Council gazetted fifteen markets in Mbeya municipality (Fig. 2). The fifteen markets shown in Fig. 2 are Airport, Igawilo, Ilomba, Isanga, Iyunga, Mabatini, Maendeleo, Majengo and Makungulu. The others are Mwanjelwa, Nzovwe, Soko Matola, Soweto, Uhindini and Uyole. Because of the small number of municipal markets which are gazetted in Mbeya Municipality, all the fifteen markets were included in the survey. Kiosks and street vendors were excluded in this phase of the study because they contributed very little, if at all, to the first and second stages of the conceptual model.

W.F. Banyikwa[1]

Fig.2. THE LOCATION OF FOOD MARKETS IN MBEYA MUNICIPALITY.
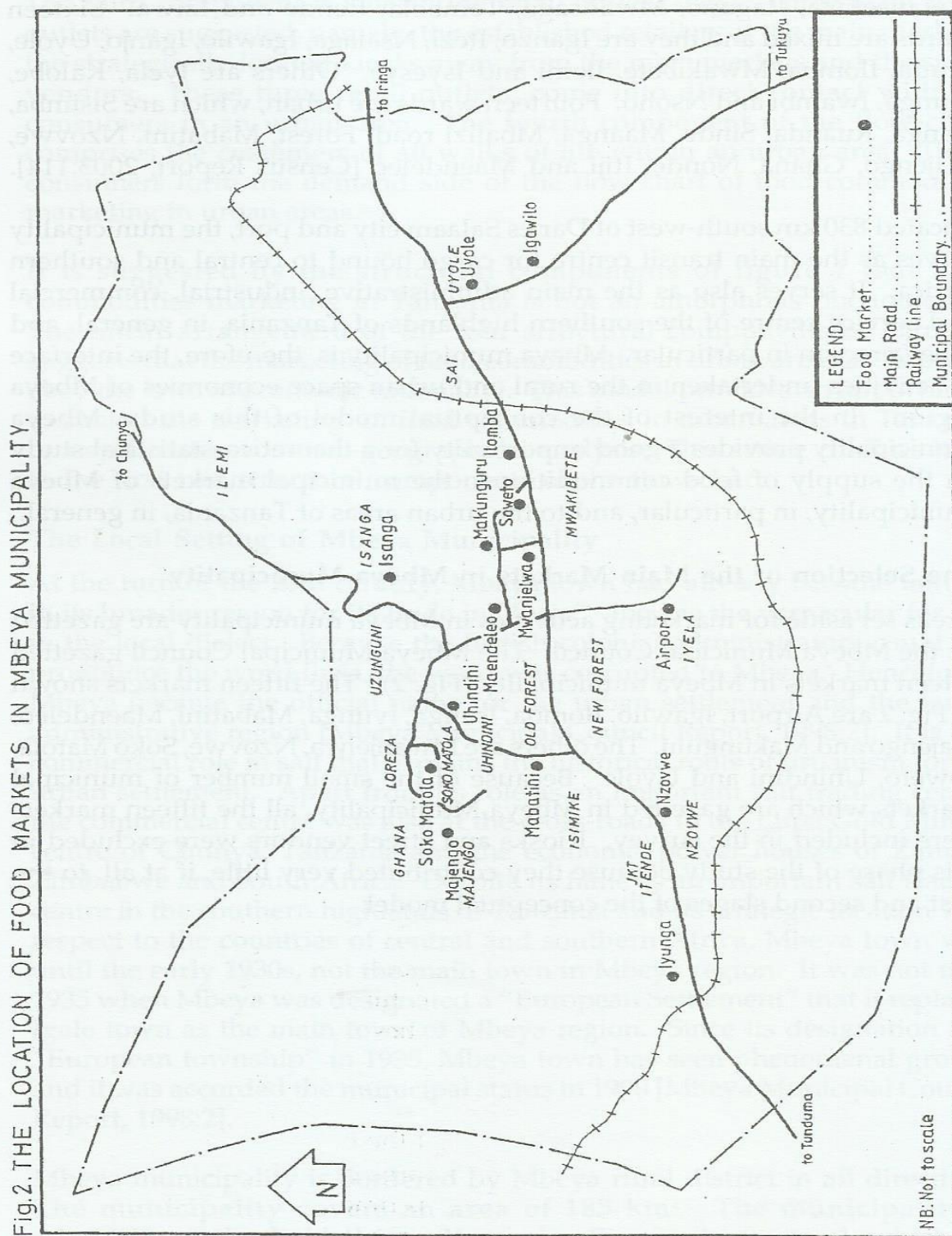
The Selection of the Main Food Commodities in the Main Markets of Mbeya Municipality

Mbeya Municipality and Region offer a very wide variety of food commodities to the main municipal markets [Mbeya Municipal Council, 1998]. A choice was made of five main types of food commodities, which were deemed to be adequate for an active and healthy life. Personally acceptable to the urbanites of Mbeya Municipality [Mustafa Koc et al., 1999]. The first type of foodstuffs included in the study was labeled protein. The items included in this category are meat, fish, poultry, pulses, eggs and milk. Although not exhaustive, the list shows the main sources of proteinous foods available in the markets outlets of Mbeya municipality. The second type of food stuffs included in the study was labeled staples. The items included in the staples are maize, potatoes, millet, green bananas, yams and cassava. These are the main sources of carbohydrates and they merited a category of their own. The third category of food stuffs included in the study was labeled fruits. Under fruits were included oranges, ripe bananas, pineapples, guava, pawpaws and passion fruits. Fruits are a rich source of vitamins for the body and they form an integral part of a balanced diet of an urbanite. These items, therefore, warranted a separate category in their own right. The fourth category of foodstuffs included in the study was labeled vegetables. Under vegetables were included cabbage, spinach, tomatoes, onions and carrots. These items may be a good indicator of the variety of vegetables in the main municipal markets of Mbeya Municipality. The fifth category of food stuffs included in the study was labeled cooking fat. In this category were included Ghee, groundnuts and coconuts. Cooking fat provides the body with the essential oils for its efficient functioning. Industrially processed food stuffs were deliberately not selected because they are principally sold in the shops. The shops fell outside the scope of this study.

The Research Instrument used in the Collection of Data

A structured and pre-coded questionnaire was designed by the author, and it formed the main instrument for data collection.

The Selection of Parameters included in the Research Instrument

In keeping with the first and second stages of the conceptual framework of this study, the parameters included in the research instrument covered the sources of food commodities, the means of transport used to collect the food commodities from the origins to the destinations and the brokers'

perception of the status of the municipal markets within Mbeya municipality.The research instrument was administered to 75 Brokers in the 15 markets of Mbeya Municipality by research assistants in January-February,2001.

The Selection of Techniques of Data Analysis and Presentation of Empirical Findings

The technique used in the analysis of the questionnaires was a classification of responses in similar and dissimilar formats. Then the frequencies were subjected to cross-tabulation. Finally the frequencies were summarized into ratios with the aid of micro-soft excel package. Since the destination of the food commodities was a spatial entity, and all the fifteen markets were surveyed, the percentages add up to 100. The method adopted for the presentation of empirical findings is the tabular form. This method was adequate in handling the empirical findings of this exploratory stage of the study, because the actual distances separating the origins and destinations at the local, regional and national scales were not measured.

The Spatial Structure of Food Commodities Marketing in Mbeya Municipality, Tanzania

The parameters which are used to show the spatial structure of food commodities marketing in Mbeya Municipality are three, namely, sources of food commodities, means of transport used in effecting the movement of food commodities from the origins to the destinations and the perception of brokers regarding the status of the fifteen municipal markets.

The Spatial Structure of Sources of the Mechandise

Based on the research instrument, 75 brokers were asked to indicate the sources of their merchandise. The responses are summarized in Table 1, which shows that more than 58% of all the proteinous foods and more than 72% of all the vegetables consumed in the municipality are supplied from the municipality itself. Table 1 shows also that more than 58% of all the staples and more than 58% of all the fruits consumed in Mbeya Municipality are supplied from within Mbeya region. Table 1 shows further that most of the cooking fat consumed in Mbeya Municipality are supplied from within Mbeya Region and from the rest of the country. The two sources accounted for 93% of all the cooking fat sold in the municipal markets of Mbeya

132

Municipality. These results show that Mbeya Municipality has three trade areas for food stuffs. The shortest reach (the municipal area) is dominated by proteinous and vegetables food types. The mesoreach (within Mbeya region) is dominated by staples and fruits. And the longest reach (the rest of the country and beyond) is enjoyed by cooking fat.

Table 1: Types of Food Commodities by Sources of Supply to Mbeya Municipality

| Type of Food Commodity | No. of Observations | Sources of Supply | | | Total |
		Within Mbeya Municipality (%)	Within Mbeya Region (%)	Outside Mbeya Region (%)	%
Protein	15	58	35	7	100
Staples	15	28	58	14	100
Fruits	15	28	58	14	100
Vegetables	15	72	21	7	100
Cooking Fat	15	7	35	58	100

Source: Field work.

Knowledge of trade areas for different commodities supplied to an urban market is significant in urban geography because it indicates spatial specializations in production for the urban market. The shorter reach in Mbeya Municipality shows that urban agriculture is one of the important activities undertaken in the municipality. It suggests that agriculture is a very well established system of land use within Mbeya Municipality[UNCHS{HABITAT}2001:72-73]. The quantities of staples and fruits supplied from the region to the urban market are indicative of the effective demand for food stuffs that Mbeya Municipality commands in the broader region. The effective demand for food stuffs in the municipality should be seen in the light of a reduced share of urbanites who gain their livelihood for food stuffs directly from the land. The known demand for food stuffs radiated from Mbeya Municipality to the region and beyond is very important in the interpretation of rural-urban synergies in a space economy. The finding vindicates an economic principle which states that production is never completed until consumption has taken place. It is because of this relationship between consumption in the urban area and production in the countryside, that Mbeya Municipality qualifies to be the interface of the urban and rural space economies of Mbeya Region [Tacoli, 1998:150].

W.F. Banyikwa[1]

Types of Food Commodities by Means of Transport in Mbeya Municipality

Based on the research instrument, 75 brokers were asked to indicate the dominant means of transport that was used to deliver their merchandise. The responses are summarized in Table 2. Two contrasting features are revealed in Table 2. First, there is a dominance of motor vehicles in the movement of food commodities from the sources to the destination in four disciplines. The percentages for these disciplines are proteins (58%), fruits (72%), staples (74%) and cooking fat (49%). Second, there is a dominance of handcarts and motor vehicles in the movement of vegetables from sources to destinations. It is important to point out here that the 36% shown in Table 2 for vegetables carried by handcarts were movements which were limited to within the municipality. The 39% shown for vegetables in Table 2 was for vehicles and these were dealing in out of the municipality movements.

Table 2: Types of Food Commodities by Means of Transport in Mbeya Municipality

Type of Food Commodity	No. of Respondents	Means of Transport from sources of supply to the markets of Mbeya Municipality				Total %
		Head Porterage (%)	Handcart (%)	Bicycle (%)	Motor Vehicle (%)	
Protein	15	16	6	20	58	100
Staples	15	12	4	10	74	100
Fruits	15	21	2	5	72	100
Vegetables	15	11	36	14	39	100
Cooking Fat	15	22	7	22	49	100

Source: Field work

Hence, for short distance haul, the handcart is still very much in business in Mbeya Municipality. The different combinations of means of transport in use to deliver food commodities to the urban markets of the Municipality suggest that the type of food commodity and the distance over which the food commodity has to be transported, determine the means of transport. It must, however, be pointed out that, overall, the motor vehicle has stamped its mark on the transportation of food commodities from the sources to the market outlets of the Municipality. This means of transport will play an even greater role with the successive expansion of the trade areas of urban areas in Tanzania, in general, and in Mbeya region, in particular [Rakodi, 1997].

The Ratings of Municipal Markets as Outlets of Food Commodities in Mbeya Municipality

In an attempt to gauge the status of market outlets in Mbeya Municipality, the brokers were asked to indicate their locational preferences. Preference in this instance refers to where a broker for a particular type of food would have liked to station their business. If all fifteen markets enjoyed equal preference, each market would have scored 6.6% on the grading scale of 100, for each type of food commodity. Scores equal to, below or above the general score of 6.6% indicate the extent to which that market outlet specialised in that type of food commodity. Because the scores tended to blur a clearer picture, the critical cut-off point was raised to 10%. A comparison of locational preferences by the brokers in the markets of Mbeya Municipality is presented in Table 3.

Table 3: The Ratings of Municipal Markets as Outlets of Food Commodities in Mbeya Municipality

Name of Market	No. of Respondents	Specialization (%) in Type of Food Commodity Within Mbeya Municipality				
		Protein	Staples	Fruits	Vegetables	Cooking Fat
Airport	5	2.5	4.3	6.4	2.2	4.0
Igawilo	5	4.5	3.3	3.4	3.2	3.0
Ilomba	5	2.5	3.3	2.3	2.2	2.0
Isanga	5	4.5	6.8	3.2	5.6	7.4
Iyunga	5	3.7	3.3	3.4	4.2	3.0
Mabatini	5	5.7	6.8	12.9	9.4	9.4
Maendeleo	5	4.5	7.3	4.4	4.2	4.0
Majengo	5	7.7	5.3	6.4	7.2	6.9
Makungulu	5	11.0	15.2	7.2	10.6	16.1
Mwanjelwa	5	7.7	3.7	6.5	10.1	6.7
Nzovwe	5	2.5	3.3	2.4	2.2	2.0
Soko Matola	5	9.7	7.4	8.2	8.8	10.0
Soweto	5	11.7	10.8	9.5	7.8	6.7
Uhindini	5	14.1	11.8	13.3	13.5	11.4
Uyole	5	7.7	7.4	10.5	8.8	7.4
TOTAL		100.0	100.0	100.0	100.0	100.0

Source: Field work.

W.F. Banyikwa[1]

Table 3 shows five distinct categories of locational preferences. Firstly, there is Uhindini market which scored more than 10% in all the five food types (disciplines). Secondly, there is Makungulu market which scored more than 10% in four disciplines. Thirdly, there is Soweto market which scored 10% in two out of five disciplines. Fourthly, there are Mabatini and Uyole markets which scored 10% each in only one of the disciplines. lastly, Airport, Igawilo, Ilomba, Isanga, Iyunga, Maendeleo, Majengo, Mwanjelwa, Nzovwe and Soko Matola scored less than 10% in each of the five disciplines. A close examination of the scores of each of the ten markets show that there are inter-markets differences but, their differences are more of degree than of kind. They are, therefore, lumped together in one category of low status locational preference.

The views of the brokers were resorted to in assessing the status of the different market outlets because the brokers create order in an otherwise chaotic situation of food commodities marketing in Mbeya Municipality. Though the 75 brokers operated in the fifteen markets, they were nonetheless candid enough to show that Uhindini market was the best location for their line of duty. Corollary, the rankings given to the other market outlets in Mbeya Municipality should be accepted as an honest opinion of a people. These rankings show that the locations of markets within an urban area do not enjoy a uniform status. The status accorded a market outlet may either show the evolutionary stages through which an urban area has experienced or the status may show the spatial distribution of local demand within the urban area. In the latter case, the status may be indicative of the general direction of expansion of the urban area's external cordon.

Based on the results shown in Table 3, one may say that the spatial distribution and status of municipal markets in Mbeya Municipality is still very lowly developed. The evidence has shown that ten out of the fifteen markets are not very attractive business locations. The spatial structure of markets in Mbeya Municipality is, therefore, still in flux. This research finding is indicative of an urban area whose forces of growth are still in spate and its internal morphology is still dynamic [Freeman, 1991].

Conclusions And Recommendations

It is gratifying to note that the four schools of thought which were trying to explain the reality of urbanism in a one sided way eventually agreed

that the necessary and sufficient condition for the emergence and continued existence of urbanism was the existence of a society which is capable of producing, extracting, manipulating and concentrating a social surplus product over a narrow geographical area. This viewpoint encompasses all the four schools of thought.

Despite the fact that the debate on the pre-conditions for urbanism was laid to rest in the early 1980s, the theoretical basis of the dynamics of the interface between the rural and urban space economies remained essentially undeveloped. This question has remained pending for a long time and this study has attempted to fill this gap in the literature. The theoretical basis of the rural-urban interactions covering the supply and marketing of food products has been proposed as a flow chart model. The model has four structural components which are linearly arranged to show the forces of supply and demand. It is suggested in the model that the forces of supply and demand of food commodities in urban areas obey the principle of spatio-economic rationality.

The spatio-economic trade areas of food commodities supply and marketing in urban areas, in general, and in Mbeya Municipality, in particular, are classifiable into three scales. The shortest reach encompass the urban area itself: the mesoscale encompass the regional administrative area: the longest reach cover the whole country and beyond. The case study of Mbeya municipality shows that each of these spatio-economic scales has a specific role in the supply of food commodities to an urban market. Vegetables and proteinous foods are sourced principally from within the urban area itself: staples and fruits are sourced from within the region: part of the grain and cooking fat are supplied from farther afield. Despite improvements in modes and means of transport and spatial specializations in production, this study shows that the sources of food products to an urban market are still determinate.

Nevertheless, it must be stated that the transportation factor still plays a very critical role in ensuring the supply of adequate quantities of food stuffs to an urban area. Food stuffs which are procured from the municipality itself are not dependent on motorized means of transport. It is only when large quantities of food items are to be moved over long distances that the motor vehicle takes over as the most reliable means of transport. In this regard and with the expansion of the field of urban economic activities, the motor vehicle will play an even greater role in supplying food commodities to Mbeya municipality and other urban areas in Tanzania.

W.F. Banyikwa[1]

Based on the empirical findings of Mbeya Municipality, it is concluded that many markets in the urban areas of Tanzania have not yet firmly established themselves in the districts of the municipalities. This is indicative of the fact that urban developments in Mbeya municipality, in particular, and urban areas in Tanzania, in general, are still in spate and the internal morphology of the towns is still in flux.

This article has presented some exploratory findings covering the first two stages of the flow chart model. To complete the model's spectrum, it is recommended that another study be undertaken, covering retailers profile, ownership of enterprises and problems encountered by the retailers in marketing food products in Mbeya municipality, the third and fourth stages of the model.

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