TABLE III

ANKOLE GENERAL STATISTICAL DATA

GOMBOLOLA	POPULATION	SQUARE MILES	DENSITY OF POPULATION	% URBAN (Resident in Central Places)	TOTAL RETAIL UNITS	TOTAL SALES UNITS
Kanoni	14,812	152	98	2.4	84	56
Rukiri (M)	12,120	77	157	1.8	66	49
Nyabuhikye	16,103	47	342	4.6	172	96
Buremba	2,825	176	16	1.6	8	5
Bishesbe	24,292	216	29	1.6	97	67
Rukiri (B)	5,514	185	112	2.0	32	20
Rwengwe	4,722	44	107	3.8	44	30
Burere	5,124	73	70	.5	19	13
Karungu	9,898	46	215	1.4	35	25
Bumbaire	23,840	23	1,036	2.7	161	88
Mitooma	26,997	51	529	1.7	142	87
Nyabubare	26,851	38	706	1.7	141	87
Kyeizoba	16,097	56	287	1.8	74	40
Bitereko	19,243	59	326	1.1	68	37
Bugarama	19,825	86	230	.9	50	35
Kvamahunga	22,704	59	384	1.9	136	91
Kabingo	9,419	109	86	2.9	47	33
Birere	21,866	137	159	2.3	79	67
Kikagate	16,964	236	71	2.1	101	63
Ngarama	9,963	239	41	4.0	73	49
Rugaga	9,588	296	32	4.8	66	44
Kagango	22,621	50	452	2.4	185	121
Kigarama	27,658	82	337	1.7	79	103
Kitigata	16,964	51	375	1.7	156	60
Shuku	21,220	63	336	1.6	124	78
Kabira	27,473	74	371	1.0	73	48
Ryeru	17,660	133	132	1.3	97	59
Kichwamba	12,715	244	52	2.9	50	27
Ihunga	28,852	59	489	1.9	143	85
Rubaare	49,496	244	202	.9	151	80
Bwongyera	29,335	52	564	.8	47	36
Ndaija	24,637	91	270	1.9	126	82
Ntungamo	24,571	112	219	1.3	93	57
Ruhama	21,270	84	253	2.6	151	92
Bugamba	22,055	75	294	1.8	122	84
Rukoni	24,679	121	203	1.4	90	57
Rugando	21,136	125	169	2.5	175	69
Kakiika	21,476	64	335	7.0	104	66
Bubaare	5,913	72	82	1.9	24	14
Rubaya	8,319	138	60	1.1	23	14
Rwanyamahembe	10,070	68	148	2.6	73	41
Rubindi	34,517	100	345	.8	101	56
Nyakasharara	10,450	600	17	.4	8	5
Kashongi	5,499	129	42	1.9	14	9
Kazo	5,878	216	27	1.7	17	9
Kinoni	7,243	250	28	2.8	42	24
Kenshunga	3,581	279	12	3.9	24	12
Mbarara	5,100				289	160

E. Afr. Geogr. Rev. No. 7, April 1969, pp. 79-85

THE MOTOR INDUSTRY IN UGANDA

I. L. GRIFFITHS

Introduction. Developing countries are important to the world motor industry because collectively they form a large and very rapidly expanding market. Motor sales and servicing are almost as ubiquitous in distribution as is the motor vehicle itself, and all countries have at least an embryonic motor industry. Establishment of the more advanced stages of the industry can form a useful part of industrialisation, leading to savings in foreign exchange, the attraction of foreign investment and the acquisition of important skills.

In developing countries the industry is very largely made up of representatives and subsidiaries of large motor companies based in such source countries as the United States, Great Britain, France, Germany, Italy, Sweden and Japan. In East Africa, for example, the products of such manufacturers as Ford, Leyland, Peugeot, Volkswagen, Fiat, Volvo and Datsun-Nissan are commonplace.

Stages of growth. Four stages in the growth of the motor industry in developing countries have been distinguished.[1] They are briefly defined as follows:

1. Sales and servicing. Vehicles imported "on wheels", in a complete form, and merely sold, serviced and repaired.

2. Commercial vehicle assembly. Commercial vehicles of the heavy truck and bus type are imported in a "semi-knocked down" (SKD) form, and are assembled within the country.

3. Car assembly. Cars and light trucks are imported in a "completely knocked down" (CKD) form, and are assembled locally.

4. Motor vehicle manufacture. Local manufacture of major motor vehicle components such as the engine or body.

The first stage begins almost with the arrival of the first motor vehicle in a country. Each subsequent stage is identified by the introduction of a particular assembly or manufacturing activity which may be identified spatially. The adoption of geographically identifiable criteria for the definitions has the advantage that a spatial dimension can be built into the chronological, developmental framework to enable locational analysis to be fully integrated with development analysis.

THE UGANDAN CASE

Market. Uganda is a small, but long established market for motor vehicles. In 1967 the total vehicle population of Uganda was well over 40,000 while registrations of brand new vehicles was 5,276.

Vehicle population has increased from 1954 at an average annual rate of 8 percent. From 1964 registrations of new vehicles have increased by almost 9 percent per annum, but this expansion is not expected to continue. To conserve foreign exchange the Uganda government has restricted import licences for cars, and the sales tax of mid-1968 is also expected to dampen down the market.

Sales and servicing stage—dealerships. The first dealerships for the sale of new motor vehicles were established in the 1920's. There are now 15 dealers in new vehicles in Uganda, with sales in 1967 of almost 5,000 units, excluding government purchases.

TABLE 1: UGANDA: VEHICLE POPULATION AND REGISTRATION OF "BRAND" NEW MOTOR VEHICLES.

	A. Vehicle population		B: Registrations of brand new vehicles	
	Total	Cars	Total	Cars
1954	17,380	9,336	—	—
1959	31,404	21,022	—	—
1964	37,340	25,752	4,133	2,510
1965	40,070	27,469	4,985	3,078
1966	41,845	27,971	5,012	3,116
1967			5,276	3,155

SOURCES: A: Uganda Government, *Statistical Abstract*, Table UE 7.
B: Uganda Government, Ministry of Commerce and Industry, *Annual Motor Vehicles Statistics*.
NOTE: For the purposes of this paper motor vehicles are: cars, vans and light trucks, lorries, buses only. Figures in Table 1 include Government vehicles.

All dealerships are held in respect of exclusive country-wide sales, plus official spares service, repairs and servicing. The latter are conditions a dealer must undertake when given the franchise by the manufacturer, and with vehicle stocks, are the largest capital outlay to be faced. Stocks of spares alone range from £25,000 to almost £200,000, depending on unit sales and the number of makes and models. Smaller dealers who handle several franchises to increase turnover are hard hit by having to carry a wide range of spares.

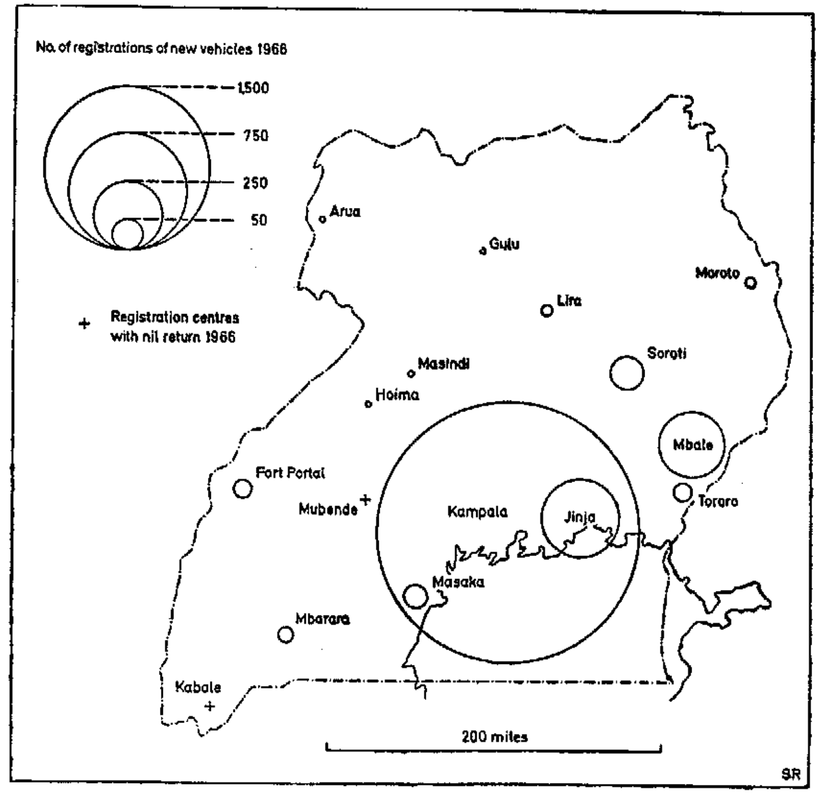
The companies holding dealerships in Uganda have sprung from a variety of backgrounds. The earliest was formed in 1908 to import cotton seed and to plant cotton. It developed into a general trading company, and as one of several enterprises acquired the Ford franchise in 1922. The British Motor Corporation franchise is also held by a general trading company whose other interests include bicycles and caterpillar tractors. A third company entered the motor trade via tractors for sugar production. A second group of four large companies, all holding more than one franchise, were formed expressly as motor dealers. All were originally based in Kenya and became Ugandan about the time of independence but maintain some operational contact with Nairobi. A third group of six dealers, all but one operating on a smaller scale than those above, started as small motor repair garages, graduating via second hand car sales to acquiring one or more dealerships. All are Asian owned, with owner-manager, family type organisation, and hold franchises obtained during the past ten years. The remaining two dealerships are manufacturer-owned, Fiat selling cars and trucks, Leyland trucks and buses.

Excepting Fiat and Leyland, the motor dealers in Uganda are locally financed in that there is no capital investment by overseas manufacturers. Initiative in obtaining the dealership usually also came from the local firm.

Location. All 15 dealers are based in Kampala, although they hold exclusive rights to sell their respective makes of vehicles throughout Uganda. Only one

has up-country branches at Jinja and Mbale, and these arise from the wider trading function of the company rather than from the motor trade itself.[2] All have agents in most towns outside Kampala, and most also have agents within the city too. Almost all dealers told of efforts to extend up-country agent sales, but with the exception of the Uganda Company, all estimated that at least 90 percent of sales were made in Kampala. This is borne out by the fact that 84 percent of all new vehicles in Uganda are registered in Kampala.[3]

This amazing degree of centrality arises from several factors. Strong centripetal forces are generated by Kampala itself particularly in terms of concentration of purchasing power for this type of commodity. Distances to Kampala from even outlying districts are not great, and roads are good. The potential purchaser can therefore easily avail himself of the opportunity of viewing the wide range of makes, models, variants and colour schemes of cars in the city showrooms, and at the same time enjoy the other amenities of Kampala. The converse of this is that the up-country agents carry, at the most, a very small stock. Few are prepared to venture from their small garage repair businesses into the field of new



car sales, or to take such risks as accepting "trade-ins" as part-exchange for new vehicles. To get such facilities, and often to get financial assistance to effect the deal, the customer must come into the capital city, and is not averse to doing so. For commercial vehicles most local body-builders are in and around Kampala, and police testing of these vehicles is also conducted there.

Numbers of registrations outside Kampala (Fig. 1) are too small to base conclusions on safely. There is a relationship between number of registrations and size of town. Jinja and Mbale show up strongly perhaps because of the branches of the Uganda Company, whose Ford vehicles sell proportionately more outside Kampala than any other make. Little has been found to support the hypothesis that more distant towns would record proportionately more registrations.

Within Kampala 11 dealers have premises along Kampala Road with greatest concentration at its eastern end (Fig. 2). Two smaller Asian dealers are situated a little off Kampala Road, whilst two companies maintain their offices at their workshops in the industrial area. Both the latter concentrate (one exclusively) on commercial vehicles.

The sales and servicing stage of the motor industry as demonstrated in Uganda is highly market-oriented with a very high concentration on the primate city. Within the city, location is along the main shopping street but away from peak value areas.

Commercial vehicle assembly. Assembly of lorries and buses from SKD packs began in Uganda in 1950. There are now six assembly plants in and around Kampala, and a seventh operated by the Ministry of Works, also at Kampala, where government vehicles not bought through local dealers are assembled.

SKD assembly simply consists of bolting together several large components and sub-assemblies. A typical breakdown of an SKD pack is: engine, gearbox, drive shaft, chassis, axles, wheels and cab. Locally built bodies are added later. Equipment needed is limited to a fork-lift truck, several jacks, tools and sometimes an overhead gantry lifting system. Tooling and machinery costs are small, estimates in Kampala varied from £2,000 to £20,000 depending on volume of output required.In all cases in Kampala the assembly plant was merely part of a repair workshop. The labour force is small, between 10 and 40 men per plant, of whom 5 to 10 are skilled. The system is flexible as space, equipment and labour may be easily switched to repair work.

Flexibility is needed as the scale of operations is too small to require assembly work on every working day of the Year. Output per plant in Kampala in 1967 ranged from 35 to 220 units with an average per plant of 115, or only 2 a week. But scale is not considered important and there is no moving assembly line. The common procedure is for up to six sets of components at a time to be laid out on the floor, so that each set may be lifted and bolted together.

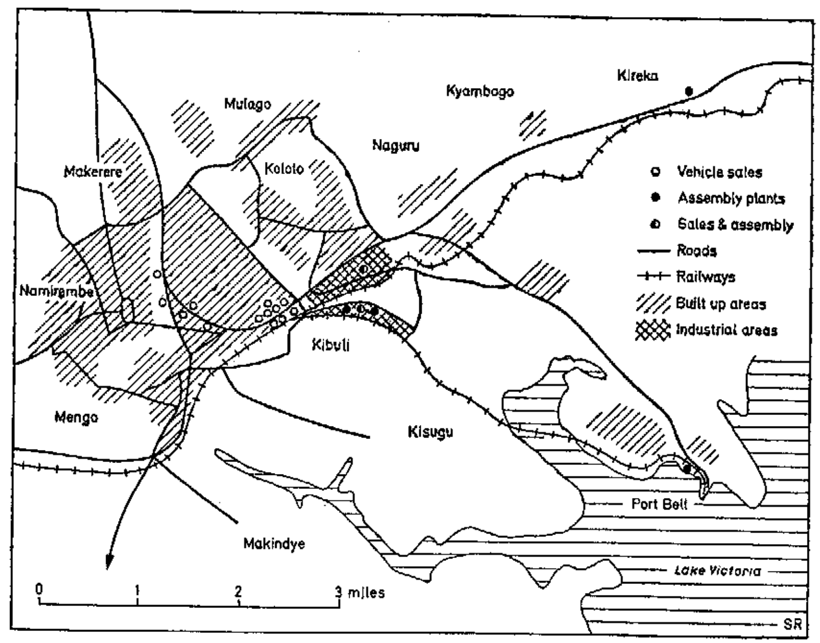
The purpose of importing in SKD form is to save transport costs. Shipping space is charged according to cubic measure, and a lorry on wheels can take up as much as four times the volume of an SKD pack for the same vehicle.[4] Packs are usually either two or four sets of components packed together in five or six wooden boxes. The saving on freight charges is considerable, put by one assembler as one half, and by another as up to £80 per unit, both on shipment from Britain. An added advantage is that customs are levied C.I.F. so that a saving on shipping costs also means less customs duty. Savings of this order far outweigh local assembly costs estimated at between £30 and £40 per unit.

The assembly plants are owned by the respective dealers, and except in the case of Leyland, there is no capital investment by the manufacturer. Total investment, including an apportionment of land and buildings was between £5,000 and £50,000 per plant.

Location. In the broadest terms SKD assembly is market-oriented in that it is located in the country of sale. Within Uganda the most significant locational factor is the organisational tie to the local dealer. Assembly work is carried out as part of the dealer organisation in a section of the repair shop of the franchise holder which is within a few miles of his main office. The companies are not large and individual managers commonly divide their time between the town centre office and the industrial area workshop/assembly plant.

All six Ugandan assembly plants are in and around Kampala (Fig. 2). Four are sited in the planned industrial areas, one at Kireka, seven miles out on the Jinja road, and the newest, completed in late 1968 at Port Bell, also seven miles from Kampala. The out of town sites reflect a shortage of land in the industrial areas and government determination to allocate what remains there to manufacturing rather than small-scale assembly industry. Only three assembly plants at present have rail access.

Vehicle body building. Local body building pre-dates local assembly although the reasons for its growth are similar: savings in freight and customs charges, and a cheap local product. Largely local materials, mainly timber, are used to make the bodies, which are often custom-built. In Kampala there are six builders of wooden "cotton" bodies, one builder of metal bodies and one recently established



coach builder. The body building companies are independent of the motor dealers/assemblers, but are locationally tied to them. Kampala has the greatest concentration of vehicle body builders, most of whom are in the industrial areas of the city. There are a few up-country firms who occasionally build bodies for local operators.

Component manufacture. Component manufacture other than body building is often introduced at an early stage. Likely components for early local manufacture are those which command a high replacement market, and it is to meet the needs of that market rather than the "new equipment" market that they are introduced. The best example is tyres, and a bicycle tyre factory already operates at Jinja. However, there is no move yet to extend into production of car and truck tyres, and as yet Uganda produces no motor vehicle components.

Problems and the future. The outstanding problem facing the motor industry in Uganda is that of scale. The market for both cars and commercial vehicles is very small, and significant growth prospects in the near future are limited. Significant in this context means growth to a point where the next stage in the development of the industry, car assembly, becomes feasible. It is estimated that Ugandan car and light truck sales would have to increase at least five-fold before the threshold for car assembly is approached. But much depends on unknowns: the possibility of an East African car assembly plant, government encouragement of car assembly by increasing the existing tariff differential[5] between assembled and unassembled cars, direct government intervention in the industry, and possible other government steps to minimise fragmentation of the already small market.

Market fragmentation is a current problem. The 15 dealers in Uganda hold franchises for 25 different makes of car and 17 makes of van. The best selling make, Peugeot, sold only 1,100 units of cars and vans in 1967. At the other end of the scale only 4 Holdens were sold, 7 Citroens (including 1 van) and 8 Standard Triumph cars. Almost all the major motor manufacturers sell in Uganda, and even a Chevrolet Impala was on stock display in Kampala in 1968. The very extent of the range available is in itself a luxury and the price is paid in the excessively large stock of spares and the amount of tooling for servicing and repairs that have to be carried per unit vehicle.

The question is could, and should, the range of vehicles be reduced? The only known move in this direction is that the National Trading Corporation of Uganda approached Peugeot with a request to take over the Peugeot franchise for Uganda. Peugeot has top sales throughout East Africa, but it is not clear whether the intention of the NTC would have been to limit imports to the one make, or simply to acquire the trading rights to compete with other manufacturers' products. In the event nothing materialised but the first alternative has at least one precedent in French-speaking Africa.

On economic grounds there is every reason for a reduction in the range of vehicles available. Conservative indeed would be the economist who defended the right of consumer choice in the Ugandan case. The process of reduction would be difficult: on what basis would choice be made? How many makes? How should the industry be organised? What of the problem of loss of livelihood and compensation? But it is a problem that could usefully occupy the minds of government planners because the experience of other countries is that fragmentation is persistant throughout the various stages of growth of the motor industry, and becomes a bigger and more difficult problem to deal with as time goes on.

The possible permutations for solving the problem of scale vitally affect the geography of the industry in Uganda. An East African assembly plant in Uganda might be best placed at Jinja or Tororo, but a single national plant at Kampala or Jinja. If there were to be more than one plant, then perhaps more than one centre would be possible, such as Kampala and Jinja. For the present, however, the embroyonic motor industry of Uganda is firmly rooted in Kampala in response to overwhelming centripetal locational factors, giving emphasis to the disproportionate importance of the primate city as a focus for commercial and industrial growth in developing countries.

NOTES

1 I. L. Griffiths, The motor industry in developing countries — patterns of growth and location, *Economic Development Research Paper No. 143*, Makerere Institute of Social Research, Kampala 19 July 1968. pp 5-6.
2 Another motor sales branch at Fort Portal was closed in 1965.
3 Derived from unpublished statistics, Central Registry of Motor Vehicles, Kampala.
4 For example a BMC 5 ton lorry fully assembled measures about 1,030 cubic feet: 5 cases and 1 bundle containing 4 unassembled (DKD) 5 ton lorries measure about 1,300 cubic feet. Information from Gailey and Roberts (Uganda) Ltd., Motor Division, Kampala.
5 Customs Tariff Act, Section 87-0-2, p. 188.