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Factors Affecting Industrial Employment

A Study of Ugandan Experience 1954 *to* 1964

AZARIAS BARYARUHA

Oxford University Press

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Makerere University College AZARIAS BARYARUHA
1966.

INTRODUCTION

Two related issues are usually raised by economists with regard to the general problem of manpower in planning strategy. The first is whether there will be enough trained personnel to implement the resolutions of the plan. This has come to mean people of secondary education and above. The other one is whether the job opportunities, permitted by the economy's expansion, will increase fast enough to absorb those aspiring for wage employment. In a young economy, this has come to mean people mainly with primary education and many unskilled illiterates who seek to abandon the traditional life in favour of a modern one.

It is the first issue that is receiving the greatest attention in many planning bureaus. In Uganda, for example, two years after independence, the number of aided secondary schools increased by 46% and University enrollment and other high education levels increased rapidly. On the other hand, the number of aided primary schools increased by less than 0.1% and employment for mostly unskilled people declined.

Putting emphasis on the first issue is probably sound economics since it can be regarded a misallocation of resources to try and produce people that could not be absorbed by the economy. However, in a country where people with primary education and above are in the minority, this indeed is a big problem. It means that in the short run, the largest section of the community will remain underprivileged. The question then is, will the privileged few be able to contain these underprivileged many?

Planning as it applies to the young countries is a desperate attempt to grapple with almost insurmountable problems. The chance of success these plans have may largely depend on the participation of the populace in the resulting increase in wealth, and starting with traditional society participation should mean a growing number of people each year in the modern sector.

This study, which is restricted to Uganda, was prompted by the failure of employment to expand in Uganda in recent years. The main part of the study was that of carrying out case studies of some of the major firms in Uganda with the aim of examining factors affecting industrial employment. The investigations were designed to find out what employers have been doing with regard to their labour. For example, to what extent has capital been substituted for labour?, has labour productivity been raised by

careful selection methods, training etc.? to what extent have changes been due to rising wages or other factors?

Chapter One is an attempt, on quantitative lines, to analyse the employment trends for the economy for the period 1954-1964. The exercise is not exhaustive because of incompleteness and some inaccuracies in the data.

Chapter Two contains, in respect of each case study, a factual report of the data obtained together with some analysis of the particular relationships between capital, output, employment and associated variables. The findings from the firms studied tend to be diverse; this was probably to be expected because of differences in background, experience, product-mix etc. Rather than attempt to present the case studies in an integrated form, it appears reasonable therefore to present each case study in its entirety. It is probably in this manner that the contribution of the experience of each firm will, in its own right, stand out.

Chapter Three is firstly an attempt to interpret the case studies. The aim is to compare them and relate the differing experience to the aggregate analysis in Chapter One. Secondly it aims at discussing some of the policy problems involved in this field. For example, it will compare population growth trends with labour force growth trends. It will look into the problems of primary leavers as well as unskilled workers and the problem of immigrant labour in Uganda and it will attempt to discuss some of the economic and social effects. Finally, some possible ways of creating employment will be suggested.

CHAPTER ONE

MACRO ANALYSIS

The first point that must be made is that the total number of people employed in Uganda is a very small proportion of the population, Uganda is still primarily a peasant economy. Total recorded employment in 1964 was 224,894 out of a population of about 7.3 million. This figure does not include casual labour on 'shambas' or domestic servants, though this would not swell the figure very greatly. Included in this total are 3163 Europeans and 9385 Asians, leaving 212,346 Africans, of which 57,724 were non Ugandans.

(i) The Structure of Employment

Before starting to analyse the changes which have taken place over the period, it will be useful to delineate the structure of employment. For this purpose it is necessary to confine our attention to African employees, in most of the classifications, because of statistical limitations. For the first classification however, that between the private and public sectors (Table I), the figures cover all employees.

TABLE I

TOTAL EMPLOYMENT BY SECTOR 1964

	PRIVATE INDUSTRY		PUBLIC SERVICES		TOTAL	
	Numbers	%	Numbers	%	Number	%
African	120,718	92	91,628	97	212,346	94
Asian	7,960	6	1,425	2	9,385	4
European	2,052	2	1,111	1	3,163	2

Source: Statistical Abstract

The largest employing industrial sectors in 1964 were Agriculture, Local Government and Construction in that order. The latter two sectors had an even larger share of total African employment ten years earlier; the share of construction falling from 20.2 per cent of total employment in 1954 to 11.3 per cent in 1964. The distribution of African employees by industrial sector is given in Table II

TABLE II

AFRICAN EMPLOYMENT BY INDUSTRY 1964

INDUSTRY	PRIVATE INDUSTRY	PUBLIC SERVICES	TOTAL	
	Numbers	Numbers	Numbers	%
Agriculture	43,085	4,729	47,814	23
Cotton Ginning	3,475	-	3,475	2
Coffee Curing	3,216	-	3,216	2
Forestry, Fishing & Hunting	474	3,018	3,492	2
Mining and Quarrying	4,748	82	4,830	2
Manufacture of Food Products	9,370	-	9,370	4
Misc. Manufacturing	16,278	207	16,485	8
Construction	6,845	17,246	24,091	11
Commerce	9,472	209	9,681	5
Trans. & Comm.	2,978	6,017	8,995	4
Central Government	-	15,429	15,429	7
Local Government	-	29,033	29,033	14
Educ. & Medical Services	11,744	13,083	24,827	2
Misc. Services	9,033	2,575	11,608	5

Source: Statistical Abstract

On a regional basis (Table III) employment structure has changed slightly. Buganda employed 45% of the work force in 1964 compared to 43% in 1956. In absolute numbers, employment declined by only 3% in Buganda between 1956 and 1964. Declines of 14% and 17% occurred in Eastern and Northern regions respectively. Only Western region had an increase in employment (4%) between 1956 and 1964 thus increasing its share from 20% to 23%.

TABLE III

AFRICAN EMPLOYEES BY REGION 1964

REGION	NUMBER	%
Buganda	94,636	45
Eastern	49,347	23
Western	48,442	23
Northern	19,921	9

Source: Enumeration of Employees

(ii) Employment, Output and Productivity

We turn now to the gloomy picture of the change in numbers employed since 1954. Between 1954 and 1964, the total recorded employment figure fell from 259,220 to 224,894, a decline of 13.2 per cent or an average annual rate of decrease of 1.4 per cent. African employment during the same period fell by 5.5 per cent or at an annual rate of decrease of 0.6 per cent. Even more depressing is the fact that African employment fell by 7.2 per cent between 1962 and 1964, a period during which Gross Domestic Product (G.D.P.) increased by 33 per cent. The relationship between total employment and G.D.P. during the period is shown in Table IV in which G.D.P. is shown at current prices and at 1960 prices, the latter figure being shown in brackets.

Clearly it is better to look at the relationship between employment and product in real terms but in part of the sector analysis and some of the case studies the calculations have to be in terms of current prices. For these reasons, throughout this Chapter, both current prices and 1960 prices are given wherever possible in order to give as much unity as possible throughout the study. Moreover the official reservations about the estimates in real terms have to be kept in mind.[1]

As the table shows, there is no year to year correspondence between employment and G.D.P. at current prices; for example, G.D.P. increased by 10 per cent between 1954 and 1955 but employment only increased by 0.8 per cent. G.D.P. increased by 19.1 per cent between 1962 and 1963 but employment actually declined (-4%). Indeed in most cases there is an inverse relationship. Moreover this is still true if we look at the change in G.D.P. at 1960 prices in relation to changes in employment although the reduction in fluctions in the G.D.P. figure reduce the deviations in magnitude.

This type of situation is probably to be expected since the major determinant of G.D.P. is agricultural export values which have no direct effect on employment; being produced in the peasant agricultural sector and priced in world markets. Following the rapid rise in G.D.P. resulting from the Korean boom in export prices in the early fifties, Uganda's G.D.P. rose only slowly between 1956 and 1962. In the past three years however, there have been a sharp recovery due to increases in the value of coffee and cotton exports. Employment on the other hand has fluctuated independently about a slight falling trend.

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1 The Real Growth of the Economy of Uganda 1954-62 Statistics Division, Ministry of Planning & Community Development, 1964.

TABLE IV

GROSS DOMESTIC PRODUCT
AND TOTAL EMPLOYMENT * 1954 - 1964

YEAR	G.D.P.+ £mill	CHANGE OVER PREVIOUS YEAR %	TOTAL EMPLOYMENT Number	CHANGE OVER PREVIOUS YEAR %
1954	92.7 (84.5)		259,220	5.0
1955	102.0 (91.6)	10.0 (8.4)	261,182	0.8
1956	102.8 (97.1)	0.8 (6.0)	260,777	-0.2
1957	109.4 (101.9)	6.4 (4.9)	240,637	1.4
1958	106.3 (101.9)	-2.8 (0)	242,994	1.0
1959	108.0 (107.9)	1.6 (5.9)	239,460	-1.5
1960	110.8 (110.8)	2.6 (2.7)	244,539	2.1
1961	111.2 (110.4)	0.4 (-0.4)	236,107	-3.6
1962	107.9 (106.8)	3.0 (-3.3)	230,819	-2.3
1963	128.5 (120.7)	19.1 (13.0)	221,649	-4.1
1964	148.9 (127.8)	15.9 (5.9)	224,894	1.5

Source: Statistical Abstract

* Employment figures for 1954 to 1957 have been adjusted upward to take into account Enumeration of Employees improved coverage since 1958.

\+ Figures in brackets refer to G.D.P. in 1960 prices

TABLE V

CHANGES IN G.D.P. AND EMPLOYMENT 1955 - 1964

YEAR	G.D.P.*	EMPLOYMENT	IMPLIED CHANGE IN PRODUCTIVITY
	%	%	%
1955	10.0 (8.4)	0.8	9.1 (7.5)
1956	0.8 (6.0)	-0.2	1.0 (6.2)
1957	6.4 (4.9)	1.4	4.9 (3.5)
1958	-2.8 (0)	1.0	-3.9 (-1.0)
1959	1.6 (5.9)	-1.5	3.1 (7.5)
1960	2.6 (2.7)	2.1	0.5 (0.6)
1961	0.4 (-0.4)	-3.6	4.1 (3.3)
1962	3.0 (-3.3)	-2.3	5.4 (-1.0)
1963	19.1 (13.0)	-4.1	24.1 (17.8)
1964	15.9 (5.9)	1.5	14.2 (4.3)
1955-1964	60.6 (39.5)	-13.1	84.8 (60.5)

Source: Statistical Abstract

* Figures in brackets are at 1960 prices

The implied change in productivity derived from the figures in Table IV is shown in the final column of Table V. This is of great interest to us because, if one makes a hypothetical assumption that there was no increase in productivity from any causes such as increased skill due to training programmes, or more efficient use of capital, or that such factors add to zero, then the percentage change in product should equal the percentage change in employment. The implied change in productivity is thus the measure of the failure of rising production to raise employment. That is to say, it is a net measure of the factors which have to be "explained" in our study.

However, since in a predominantly export-oriented peasant economy, the income employment relationship is bound to be a crude one, a better approximation to the relevant measure of implied productivity is given in Table VI from which G.D.P. and employment in agriculture are excluded.

In the remaining sectors covered by this table the product is produced by paid labour which corresponds with recorded employment in these sectors and the relationship between employment and product should be more meaningful. Even so, in terms of current prices there is rather less year to year correspondence in the direction of the changes and in 1960 prices the association is not improved. The range of annual changes in implied productivity is considerably reduced in both measures. Over the period as a whole, however, the relationship between the two rates of change should give a reasonable approximation of the average annual increase in labour productivity. The change over the period 1954-1964 is 61% which is equal to an annual rate of increase of 5%.

TABLE VI

CHANGES IN G.D.P. AND EMPLOYMENT

EXCLUDING AGRICULTURE

YEAR	G.D.P.*	EMPLOYMENT	IMPLIED CHANGE IN PRODUCTIVITY
	%	%	%
1955	16.8	2.7	13.7
1956	9.3	-1.1	10.5
1957	3.4	-8.0	12.4
1958	1.1	0.2	0.9
1959	3.1 (-0.3)	-1.1	4.2 (0.8)
1960	7.5 (3.5)	0.9	6.5 (-2.9)
1961	2.0 (1.1)	-2.0	4.1 (3.2)
1962	2.2 (0.5)	-4.4	6.9 (5.1)
1963	11.4 (7.4)	-4.5	16.6 (12.5)
1964	15.7 (4.9)	1.4	14.1 (3.5)
1955-1964	70.2	-17.5	106.3

Source: Statistical Abstract

* The bracketed figures are arrived at by using G.D.P. at 1960 prices

TABLE VII

CHANGE IN G.D.P. AND EMPLOYMENT

BY INDUSTRY 1956 - 1964

	G.D.P*	EMPLOYMENT	IMPLIED CHANGE IN PRODUCTIVITY
	%	%	%
Mining & Quarrying	375 (140.7)	-9	422.0 (154.6)
Manuf. (Food and Misc.)	10 (-15.8)	4	5.8 (-23.5)
Construction	-35 (-56.1)	-36	1.0 See Note
Commerce	57 (62.3)		
Trans. & Comm.	47 (48.7)	-2	50.0 (51.7)
Misc. Services	99 (21.2)	-5	109.5 (27.6)
Others	51 (-1.9)	-4	57.3 (2.2)

Source: Statistical Abstract

* Figures in brackets are at 1960 prices

Note: It is not possible to give a figure for increase in productivity in Construction because the real product is estimated on the basis of unchanged productivity in The Real Growth of the Economy of Uganda 1954/62

The table above shows the rate of growth of value added in relation to employment in each sector (excluding agriculture). The importance of the construction industry's decline is clearly brought out. It should be pointed out that the downward trend which characterized the construction industry reflects the capital formation pattern in the country as a whole in this period.

A close look at the changes in the construction industry shows that the decline in product almost exactly equalled the decline in employment using current prices as a measure. There can thus be little doubt as to the reason why employment declined in this industry; the fall in product brought about the fall in employment.

The circumstances in the construction sector are not, however, typical on account of the depressed level of activity indicated in the large fall in output. No case study has been done in this sector and for the purpose of our productivity analysis we shall now eliminate construction as well as agriculture from the G.D.P. and employment figures. In all of the remaining sectors, Table VII shows that there has been a rise in product at current prices. Having regard to the reservations which are officially made regarding the estimates of sectional products the fall shown on the basis of 1960 prices in manufturing (15.8%) and "others" (1.9%) leaves some doubt as to the direction of changes in these cases. The implied change in productivity for this group of sectors is shown in Table VIII from which it should be noted that there has been a continuous increase in product year by year over the whole period. We now have in the last column a reasonable measure of the changes in labour productivity over a period during the whole of which output was increasing, though not at a constant rate. Significant increases in employment occurred only in 1960 and 1964 both years in which there was a relatively high change in output.

Over the period as a whole labour productivity increased by 20.2% on current price basis and by 24% between 1958 and 1964 on the basis of 1960 prices. These increases are equivalent to annual increases of 7% and 4% respectively. These are very high rates and if we take the real rate as being more appropriate (although it may be less accurate) it means that output must expand at 4% annually in order to maintain employment constant. Increases in productivity are to be welcomed in a fully employed developed economy but in Uganda, with underemployed labour resources they are very "mixed blessings" indeed because of the second problem raised in the introduction.

TABLE VIII

CHANGE IN G.D.P. AND EMPLOYMENT

EXCLUDING AGRICULTURE AND CONSTRUCTION

YEAR	G.D.P*	CHANGE OVER PREVIOUS YEAR	EMPLOYMENT	CHANGE OVER PREVIOUS YEAR	IMPLIED CHANGE IN PRODUCTIVITY
	£.mill	%	Number	%	%
1955	44.1		171145		
1956	47.5	7.7	172550	0.8	6.8
1957	50.8	6.9	157550	-8.7	17.1
1958	51.1 (54.4)	0.6	156282	0.8	-0.2
1959	53.2 (54.9)	4.1 (0.9)	159147	1.8	2.3 (-0.9)
1960	57.4 (57.4)	7.9 (4.6)	163740	2.9	4.9 (1.7)
1961	58.9 (58.5)	2.6 (1.9)	160855	-1.8	4.5 (3.8)
1962	60.0 (58.6)	1.9 (0.2)	152392	-5.3	7.6 (5.8)
1963	67.7 (63.6)	12.8 (8.5)	147293	-3.3	16.6 (12.2)
1964	78.9 (67.3)	16.5 (5.8)	151525	2.9	13.2 (2.8)
1955-64	+34.8	78.9	-19620	-11.5	202.1

* Figures in brackets are at 1960 prices

Source: Statistical Abstract

(iii) Employment and Wages

Increases in the wage bill have been very rapid indeed over the ten year period, the total wage bill for African employees having increased more than three fold - roughly in line with our refined measure of increase in labour productivity in current prices.

As Table IX shows, wage increases in the public sector have been greater than those in the private sector. This is probably due to the higher rate of Africanization in this sector.

TABLE IX

INCREASE IN WAGE BILL

FOR AFRICAN EMPLOYEES 1956-1964

	1956 - 1964		1960 - 1964	
	Period	Annual Rate	Period	Annual Rate
Public Sector	140.3%	11.6%	77.6%	15.4%
Private Sector	107.0%	9.5%	46.9%	10.1%
Economy	123.6%	10.6%	61.9%	12.8%

Source: Statistical Abstract

Increases in the wage bill in the 1960s have been greater than increases in 1950s which again corresponds with the relative rates of growth of labour productivity in current prices in the two periods.

TABLE X

CHANGE IN WAGE BILL OF AFRICAN EMPLOYEES BY INDUSTRY 1954 - 1964

	1954 - 1964		1960 - 1964	
	Period	Annual Rate	Period	Annual Rate
	%	%	%	%
Agriculture	227.5	12.6	87.2	17.0
Cotton Ginning	21.7	2.0	61.7	12.8
Forestry and Fishing	270.8	14.0	55.7	11.7
Mining and Quarrying	225.8	12.5	62.4	12.9
Manuf. of Food Products	200.4	11.7	59.6	12.4
Misc. Manuf.	218.1	12.3	64.2	13.2
Construction	27.6	2.5	26.2	6.2
Commerce	383.6	17.1	57.3	12.0
Trans. & Comm.	188.8	11.2	29.2	6.6
Central Government	484.6	19.3	145.2	25.1
Local Government	216.3	12.2	31.3	7.0
Educ.& Medical Services	351.2	16.3	61.8	11.8
Misc. Services	245.9	13.2	40.7	8.9

Source: Statistical Abstract

With the exception of cotton ginning and construction where increases in the wage bill between 1954 and 1964 were 21.7 per cent and 27.6 per cent respectively, increases in other industries were all over 200 per cent. The most notable increases took place in Commerce, Central Government, and Education and Medical Services. It is significant that while G.D.P. and employment in Construction declined between 1954 and 1964, the wage bill increased. The growth was small over the ten year period (2.5%) and fairly moderate in the 1960s (6.2%).

TABLE XI

CHANGES IN AVERAGE CASH WAGE

PER AFRICAN EMPLOYEE BY INDUSTRY 1954 - 1964

	1954	1964	1954 - 1964
	£	£	Increase %
Agriculture	20.1	62.6	211
Mining & Quarrying	20.6	109.9	433
Manuf. of Food Products	28.2	86.9	208
Misc. Manuf.	43.2	123.5	186
Construction	37.8	90.9	140
Commerce	45.8	142.9	212
Trans. & Comm.	59.8	146.4	145
Central Government	54.2	228.1	321
Local Government	22.8	92.7	307
Educ. & Medical Services	52.3	176.8	238
Misc. Services	43.2	127.2	194

Source: Statistical Abstract

An analysis of changes in the average cash wage per African employee over the ten year period 1954-1964 (shown in Table XI) reveal fantastic increases. Highest increases occurred in Mining, Central Government and Local Government in that order. In Central Government rapid increases in the average wage mainly reflect the effect of Africanization. In this sector, employment increased by nearly 39 per cent over the ten year period.

These big increases in the average wage result from three elements in the changing wage and employment structure: (i) a general increase in wage rates (the rate for the job); (ii) a closing up of the wage structure from the bottom; and (iii) an absolute reduction in the number of unskilled workers employed. We must now look at this in some detail.

TABLE XII

AFRICAN EMPLOYEES BY WAGE GROUPS - PRIVATE INDUSTRY*

	0 - 99			100 - 199			200 +		
	1956	1960	1964	1956	1960	1964	1956	1960	1964
	%	%	%	%	%	%	%	%	%
Agriculture	97 (71)	97 (70)	46 (11)	2 (21)	3 (15)	52 (68)	1 (8)	- (15)	1 (22)
Cotton Ginning	94	89	77	4	7	13	2	4	10
Forestry, Fishing & Hunting	87 (91)	71 (77)	64 (23)	11 (6)	28 (14)	25 (65)	2 (3)	2 (9)	11 (11)
Mining and Quarrying	90 (72)	42 (78)	55 (35)	9 (28)	48 (18)	32 (57)	1 -	9 (5)	14 (7)
Manuf. of Food Products	90	80	21	8	13	71	2	7	8
Misc. Manuf. Industries	76 (57)	62 (93)	17 (not available)	17 (15)	26 (20)	59 (8)	7 (28)	12 (37)	25 -
Construction	73 (77)	66 (79)	28 (12)	21 (18)	26 (14)	55 (74)	6 (5)	8 (8)	16 (14)
Commerce	71	60 (61)	23 (36)	19	25 (18)	46 (53)	10	15 (21)	31 (11)
Trans. and Comm.	56 (65)	36 (42)	9 (7)	31 (23)	33 (39)	44 (60)	13 (12)	30 (19)	48 (32)
Educ. & Medical Services	57 (68)	40 (52)	40 (9)	22 (17)	17 (23)	23 (57)	21 (15)	44 (25)	37 (34)
Misc. Services	69 (72)	70 (61)	39 (8)	19 (15)	14 (17)	46 (56)	12 (13)	17 (22)	15 (35)
Central Government	- (53)	- (41)	- (5)	- (36)	- (38)	- (31)	- (11)	- (22)	- (64)
Local Government	- (89)	- (74)	- (49)	- (8)	- (17)	- (35)	- (3)	- (10)	- (15)

* Public Services' figures are indicated in brackets.
Some figures in 1964 are subject to small margins of error.

Source: Enumeration of Employees

With regard to the wage structure by sectors (Table XII) it is quite clear that most gains have been made in the 1960s. In Agriculture in public services, for example, only 11 per cent of the employees were earning less than Shs. 100/- a month in 1964 compared to 71 per cent in 1956. In the private sector in the same industry, 46 per cent of the employees were earning less than Shs. 100/- a month in 1964 compared to 97 per cent in 1956. This sharp upward movement in wages in the public services seems to be quite distinct in almost all industries except in Commerce, Mining and Quarrying, and Local Government where 36 per cent, 35 per cent and 49 per cent of the employees respectively were still earning less than Shs. 100/- a month in 1964. In private industry, gains made by employees at the lower end of the scale in some industries are not comparable to those in the public services. For example, the proportion of employees still earning less than Shs. 100/- a month in agriculture was 46% in 1964 compared to 11% in the public services and in education and medical services 40% still earned less than Shs. 100 a month in 1964 compared to 9 per cent in public services.

(iv) Minimum Wage

The first statutory minimum wage legislation was enacted in 1935. In a situation where machinery for collective bargaining did not exist, the minimum wage law gave government power to fix wages for those employees who were considered to be receiving too little. A series of Advisory Boards on both regional and national levels were appointed. In 1949, the Minimum Wages Law fixed Sh. 33/- a month as the minimum wage for Kampala and Jinja.

In a way, the government has generally been the leader in raising the wages for lowly paid employees in the economy. The practice has been that the government raises wages for its lowly paid workers - the unestablished group employees - before it appoints a Minimum Wages Advisory Board to fix wages for employees outside the public services. The latest minimum wages laws of major significance are those of 1959, 1962-3 and 1964-5, which are presented in Table XIII.

TABLE XIII

MINIMUM WAGES 1959 - 1965

	1959	1962-3	1964-5	Percentage Increase
	Sh. Per month	Sh. Per month	Sh. Per month	
Kampala	74.40	120.00	150.00	101.6
Jinja	67.60	110.0	150.00	121.9
Mbale & Tororo	65.00	104.00	140.00	115.4
Masaka	57.00	104.00	140.00	143.9
Other Towns	-	84.50	130.00	53.8

Source: Enumeration of Employees and Reports of the Minimum Wages Advisory Boards

The figures given in Table XIV, which were obtained from the Executive Secretary of the Federation of Uganda Employers show the minimum wage actually paid in 1961 and 1965 in selected employing units.

TABLE XIV

WAGES FOR UNSKILLED EMPLOYEES 1961 and 1965

EMPLOYER	JUNE 1961	JUNE 1965	PERCENTAGE INCREASE
	Sh. Per month	Sh. Per month	
Central Government - Kampala	80.60	150.80	87.1
Central Government - Upcountry	49.40	135.20	173.3
Local Government - Buganda	43.60	75.00	72.0
Oil Companies	115.64	211.70	83.0
Tobacco	98.00	249.90	155.0
Bankers	125.00	244.00	95.2
Breweries	90.00	180.00	100.0
U.E.B.	155.00		
Major Tea Companies	55.00	129.00	132.0
Sugar	71.00	111.00	56.0

Tables XV and XVI present a summary of the detailed analysis of labour market changes between 1961 and 1963. The basic data are obtained from tables in the Enumeration of Employees showing the percentage distribution of African adult male employees among earning groups in the various towns and districts. The analysis compares changes in the seven towns and districts most directly affected by the 1962 minimum wages legislation with changes in other geographical areas, and distinguishes between employees earning below the minimum wage in the seven towns (0 - 99 shillings per month), employees earning about the minimum wage (100 - 149 shillings per month), and the higher earning group (150 or more). Employees in Public Services and Private Industry are examined separately.

TABLE XV

AFRICAN ADULT MALE EMPLOYEES ANALYSED BY WAGE GROUPS

PUBLIC SERVICES

	0 - 99			100 - 149			150 +			All Wage Groups
	1961	1963	1963/1961	1961	1963	1963/1961	1961	1963	1963/1961	1963/1961
7 Towns	18416	3677	-14739	4657	17590	+12933	13697	15463	+1766	- 40
Other Areas	36483	15426	-21057	7439	18124	+10685	13287	11946	-1341	-11713
Uganda	54899	19103	-35796	12096	35714	+23618	26984	27409	+ 425	-11753

Note: The figures are calculated from percentage and therefore contain rounding errors.

TABLE XVI

AFRICAN ADULT MALE EMPLOYEES ANALYSED BY WAGE GROUPS

PRIVATE INDUSTRY

	0 - 99			100 - 149			150 +			All Wage Groups
	1961	1963	1963/1961	1961	1963	1963/1961	1961	1963	1963/1961	1963/1961
7 Towns	41939	18742	-23197	7919	25404	+17485	12181	15611	+3430	- 2282
Other Areas	39883	30089	- 9794	6311	16451	+10140	10349	12292	+1943	+ 2289
Uganda	81822	48831	-32991	14230	41855	+27625	22530	27903	+5373	+ 7

Note: The figures are calculated from percentages and therefore contain rounding errors.

The data used here have certain weaknesses for the purpose of this analysis. The seven towns and the other areas do not correspond exactly to the areas where minimum wages apply and areas where they do not. In analysing employment changes, it is impossible to separate out employees previously receiving less than 149/- shillings who now receive 150/- shillings or more. And of course other factors besides the Minimum Wages, affected both wages and employment. Despite these difficulties, the results seem clear enough to be meaningful.

(a) Tables XV and XVI show that there has been a distinct closing up in the wage structure. Both in public services and in private industry, large percentages of the labour force in the seven towns moved up from the 0 - 99 earnings bracket to the 100 - 149 bracket, while only small percentages moved into the 150+ bracket.

(b) In Table XV, referring to Public Services, the point which stands out clearly is that the decline in employment was concentrated in the low-wage brackets of the labour force (0 - 149 shillings). The decline in employment was actually greater in areas outside the seven towns, but the public services were affected by higher government wages even though located outside the seven towns.

(c) In Table XVI, referring to Private Industry, the decline in employment was again concentrated in the low-wage brackets. Moreover, the decline was much more pronounced in the seven towns most directly affected by Minimum Wages than in the rest of the country.

(d) Looking at the industrial pattern of unskilled African employment in the country as a whole, the agricultural employment figures tell a clear story. If we look at the figures for unskilled African employees set out in Table XVII below, the contrast between the virtually unchanged figure in agriculture to which the minimum wage requirement did not apply and the large decreases in unskilled employment in the sectors to which it did apply is clear evidence of the effect of minimum wage requirements.

(e) The decline in African employees classified as unskilled was even greater than the overall decline in African employment.* This reinforces the observation that employment reductions were concentrated among employees most affected by minimum wage requirements.

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* African unskilled labour declined by 14.8 per cent between 1959 and 1964 while the decline in all African employees over the same period was 5.3 per cent.

TABLE XVII

AFRICAN UNSKILLED EMPLOYEES ANALYSED BY MAJOR EMPLOYING UNITS

1959 - 1964

Area	1959	1960	1961	1962	1963	1964	Change 1959-64
	No.	No.	No.	No.	No.	No.	(%)
Whole Economy	137048	137234	128900	129559	115969	116820	-14.8
Construction	20976	19437	18917	19233	17824	16279	-22.4
Local Government	23607	18984	15791	13466	10770	14004	-40.7
Agriculture	38619	41703	38665	41904	38547	38913	+ 0.8

Source: Enumeration of Employees

SUMMARY

In most industries, productivity has been increasing over our period. This is because output, in most industries, has increased over the period while at the same time employment has, in most industries declined. In those industries where employment has continued to increase, output has been growing about four times faster than employment.

It is now necessary to go behind this concept of changes in productivity, which signifies no more than a changing ratio between output and numbers employed. A great variety of factors could contribute to changes in this ratio of which the following are probably the most important:

(i) increases in capital equipment;
(ii) more efficient use of capital equipment;
(iii) more efficient organization of labour;
(iv) better selection of employees;
(v) stabilization of labour;
(vi) higher technical competence due to training and education;
(vii) higher level of nutrition due to higher wages.

We now turn to our case studies in Chapter II in order to throw some light on what factors have been significant in these particular cases.

CHAPTER TWO

Case Study No.1 Nyanza Textiles Industries Ltd.

A. Introduction

The Uganda Development Corporation is the sole shareholder of Nyanza Textiles. The managing agents, who also were the shareholders of Nytil up to the end of 1958, are the Calico Printers Association of Manchester. Nytil is a 'vertical' type of establishment, i.e. all operations of cloth making are carried out under the same roof. This type of establishment demands strict coordination of different stages of the process of cloth production.

The factory, which came into operation in 1956, runs three shifts for 6 days 8 hours a day. It is regarded by international standards as one of the most modern plants. The level of efficiency judged by the performance of the productive departments (weaving and spinning) compares favourably with textile production in the United Kingdom.

B. Employment

Recruitment Recruiting is usually from applicants at the gates where there always seem to be over 100 and on some days 300 people waiting to be called in. This is apparently common practice among major employers in Jinja. When there is a pressing need for more skilled workers the practice has been to recruit students from technical schools. These would be students of Junior Secondary education, who have had a three year training at technical Institutes. The former Kampala Technical Institute (now Uganda Technical College) seems to have provided most of the recruits. They would be taken on in mechanical trades. In cases when they have to undergo training first, they train as overlookers.

Except for ancillary jobs or in special circumstances, most recruits take an aptitude test, which is scientifically designed to select workers who have a good natural propensity to pick up textile skills. It ignores candidates' educational and cultural differences and requires speed and accuracy. The results from the test are used to screen employees for particular jobs, as some jobs demand a higher manual dexterity or greater intelligence than others. For example, one who scores highly on nuts is regarded as a potentially good doffer while one who performs well on dexterity test (rope twisting) is usually taken on as a battery filler. Thus scores on individual tests are as important as the total

score. The management believes that usually a candidate with a high overall average score on the test can be recruited for any job.

Aptitude test records show that only three out of ten candidates tested are accepted. The general consensus at Nytil is that the tests have saved considerable time which would have been spent on training unsuitable candidates. The workers who pass through this test, are taken on for a probationary period of four weeks before the Company opens up files for them.

Tribes - the tribal composition of the labour force is as shown below:

Tribe	Employees 1964 % of total	Recruited 1964 % of new recruits	Served above 3 yrs % of each tribe	Leavers 1964 % of each tribe
Basoga	23.8	31.9	51.6	6.3
Baganda	17.2	24.3	56.7	8.1
Basamia (U)	7.9	1.5	86.6	16.2
Basamia (K)	2.1	-	86	95.0
Acholis	6.5	4.0	73.5	13.9
W. Nile	5.5	3.5	74.7	10.9

Nytil is a meeting place of tribes. Workers come not only from all regions of Uganda but also from the neighbouring countries. The major tribal groups are the Basoga and Baganda, who in 1964 comprised 23.8% and 17.2% respectively of the total labour force at the factory. The next big batch is composed of Uganda Samias (7.9%), Acholis (6.5%) and W. Nile (5.5%). As the table above shows, Basoga and Baganda have fewer long-term employees, but comprise a relatively large share of recruits. This may simply reflect a change in the tribal composition of recruits from earlier years to more recent years. On the other hand, Basoga and Baganda have lower leaving rates as percentage of number employed, thus they appear to be more stable near to homes. The 1964 overall leaving rate of 13% for all employees is effectively kept down by the high proportion of unemployed labour force within the Jinja area. The Kenya Samias, most of whom were long-term employees, suddenly quit because of quick promotion prospects in the newly-erected textile plant at Mombasa.

Education - The educational composition of the labour force is as shown below in 1964:

	Employees	% of Total	Leavers	% of each Educational level
Illiterate	392	15	46	9
P I- 6	1403	53	194	13.8
Sec. I & Over	864	32	108	12.5

The educational level of the factory's labour force is predominantly of Primary Standard (53% in 1964). This is probably due to the manual types of jobs that exist in a textile factory. Unskilled and semi-skilled operatives (pay grades 2 to 4) formed 61.5% of total employees at the factory in 1964. The generally low educational level of the factory's labour force is being altered to some extent through an intensive training programme for operatives mainly in the spinning and weaving departments. However, Nytil's general employment practices seem to suggest that aptitude and experience are more significant for effective performance in most jobs than formal education.

Training The first and major form of training is of the "on-the-job" type. On-the-job training is designed more for particular equipment, and less or not at all for general understanding of industrial processes. The factory runs two schools within the departments of spinning and weaving. Except when an expansion is anticipated, training is usually to replace leavers. Selection for training is mainly by aptitude test. Sometimes the trainees are picked from old employees who in the case of weaving might have been working as battery fillers. The instructors are expatriates with African assistants.

The weaving school is divided in two sections. In one section, they train actual weavers i.e. operatives directly engaged in cloth making. The training lasts for six weeks. After training each weaver looks after 18 or 24 looms. In the second section, which is small, they train machine-controllers, or overlookers, as Nytil prefers to call them. A worker with a technical background is preferred for this type of training. These also train for 7-9 months. In the factory they look after 66 looms.

Another form of training in which promising employees are encouraged is by correspondence with an outside body. In the meantime, they do many exercises which are marked by a senior member of staff

at Nytil. The Company pays 50% of the fees for each correspondence course as a loan and if the candidate is successful, the company pays the other 50% and also writes off the loan.

There is an apprenticeship scheme mainly for machine fitters, plumbers and electricians run in conjunction with the Labour Department. Employees who have had preparatory training from Technical Institutes are put under expert instruction for a prescribed period, after which they are tested by the Labour Department. Nytil also takes on students from Uganda Technical College during holidays to give them practical training and to expose them to an industrial environment.

"Training within Industry", a course usually run by the Labour Department, is designed for middle levels of management or supervisors. The emphasis is on such things as job safety, job instruction, and job relations. Other courses for senior members of staff are given by the Federation of Uganda Employers.

C. Capital Equipment, Output, Employment and Wages

Capital Equipment The factory has a modern and capital-intensive method of production such as might be installed in a recently-built factory in the United Kingdom or the United States. The machines are of the latest type, many provided with automatic devices. From the establishment's international connections, one thinks that the degree of mechanization is probably determined by the state of international technological advancement.

As shown in Table I, there are three distinguishable phases in the factory's mechanization process. In the period 1956 to 1960, the productive plant was installed initially and then the labour force gradually built up (3rd shift in operation in 1958); production kept on rising as plant operating efficiency improved. Between 1960 and 1963, there was a major expansion of about 70% in fixed assets, the same in spindles and more in looms. The important additions included dyeing and finishing facilities. Another major expansion started in 1965 and it is estimated spindles will increase by about 70% and probably less in looms. This will make the plant amongst the biggest in Africa.

Expansion and consequent introduction of new equipment is decided by Uganda Development Corporation after seeking advice from their managing agents. The timing of such changes is based on the results of market surveys. These surveys take into account changes in the standard of living and other factors

which may have relevance for people's tastes. For example, the management at Nytil thinks the present East African market can now absorb high quality shirts of Poplin type. Production of such material is planned in their new expansion and the next stage, it is hoped, will be in printing.

Output As Table 2 shows, there has been a dramatic growth in output in two waves corresponding to the first two phases of capital expansion noted above. During the three years 1957 to 1960, using cloth yardage figures, there was approximately a doubling in output concentrated particularly when the factory started operating on a three-shift basis in 1958. For the period 1960 to 1963, using both sales value and cloth yardage measures, output again doubled though it nearly levelled off in 1964. During both these three year periods, the annual rate of growth of output averaged about 25%.

Employment The growth of the work force (see Table 2) clearly follows the expansionary pattern of the factory's stages of development but with a notable difference between the first phase; as the factory moved into three-shift operations and became an efficient going concern, employment rose roughly in line with output. Thus from 1957 to 1960, while output doubled, employment somewhat more than doubled. The 1960-63 expansion on the other hand, led to an increase of about 40% in labour force, while capital equipment was expanded about 70% and output again doubled. It is hoped that when the project now going on is completed, Nytil will be able to take on about 1000 new employees, bringing the factory's total labour force to 3700. This would be about a 40% increase compared to 55-65% for looms and spindles and presumably a much larger relative rise in potential output.

The departments of Spinning and Weaving show a similar pattern of growth to that of the firm as a whole, with a more marked difference between the two phases. The other departments which employed relatively few people in the earlier phase, have continued to expand in the more recent phase. Employment in administration, engineering, and works (which does dyeing and finishing) somewhat more than doubled from 1960 to 1963, while employment in spinning and weaving went up only about a fifth.

With regard to productivity trends, the fact that employment in the 1957 - 1960 period was growing slightly faster than output implies a small negative trend in the average productivity of labour. In the 1960 to 1963 period, however, the picture is reversed. As shown by the calculations below, output has been increasing faster than employment and

average productivity of labour has been increasing at a rate of 11 or 12% per year.

Trend in Output, Employment and Average Productivity 1960-63

	Sales Value	Cloth Yardage
annual growth in output	25.1%	26.5%
annual growth in employment	12.7%	12.7%
annual growth in productivity	11.1%	12.2%

Another point of interest is the capital investment per industrial job. Up to 1960, it was about £1000 per job (1800 employees, assets £1.78 million), but from 1960 to 1963 it was something over £1600 (770 additional employees, £1.28 million additional assets). Thus industrial expansion even in textile is a costly way of creating jobs, at least direct factory jobs.

Wages Unlike most employers in the country, Nytil pays on a weekly basis. The factory has a comprehensive job evaluation grading system ranging from grade 1, a new employee on four-weeks probation, to 14, a wages clerk, then from A, a carpenter, to J, a supervisor. The higher the grade, the higher the wage. Each employee is paid a basic rate, which is almost standard for each grade and then four types of incentive bonuses. The workers have reacted positively to the incentive wage system, which management regards as the key factor in the factory's level of performance.

There are four types of incentive bonuses, namely conduct, attendance, rotating shift and production. The latter contributes the biggest share of the take home pay (T.H.P.). As Table 4 shows, grades 3 to 10 have the highest share of piece rate pay. These are the grades which are believed to contribute most to the level of production.

The basic wage for the first four grades is likely to be below the government minimum wage. The T.H.P. however is higher; as indicated in Table 3, the average T.H.P. for grade 2 is about 190/- per month.

A distinctive benefit is that a cash payment of 80/- is paid on behalf of each employee as a contribution to his Graduated Personal Tax each year. On the other hand, there is no housing subsidy, as the firm provides no housing, and workers find accommodation in Jinja.

Since the average T.H.P. for unskilled and semi-skilled operatives is higher than the minimum wage, union activity in this field is unlikely to win strike cases. The energies of the Union seem to be

concentrated on getting more welfare and fringe benefits. The discussion between the Union and management which took place when the writer was visiting the factory concerned more holidays. It was, however, deadlocked.

The departmental distribution of employees among wage grades is such that there is a concentration of lower grade employees in Spinning and Weaving. On the other hand, the higher grades are largely in engineering and works departments. The more rapid growth of these departments 1960-1963 implies higher skills and pay in the whole work force.

A close analysis of the wage structure with the 1962 government minimum wage legislation in mind shows (Table 4) that while it did not have a dramatic effect in squeezing the wage structure, it did have a mild effect in 1963 which was not repeated in 1964 when the minimum wage was unchanged. In 1963, the increase in grades 3 and 4 was 16-18%, and though similar increases were gained across the board, these were smaller in grades higher up - about 10% in grades 8,9 and 10 and about 5% in grades A - F. In 1964, grades 3 and 4 got only 5-7%, and the higher grades got about the same. One other point to be noted is that the averages in Table 4 are affected by incentive bonuses and therefore are not pure wage rates.

An attempt to get the share of the wage bill in the crude value added and in sales value (Table 5) shows that despite capital investment and rising average labour productivity noted before, the wage share has been rising and not falling. Moreover, between 1960 and 1963 the growth of wages was rather higher than average productivity - 14.9% per annum against 12.2%. This may suggest that continuing improvements in productivity are needed to keep up with an independent wage trend; or it may suggest that wages adjust to an independent trend in productivity.

D. Conclusions

The failure of industrial employment in the country to grow in recent years has not been reflected at Nytil. Although there has been almost a levelling off in the last two years, generally employment has increased rapidly and is expected to continue to do so. Our analysis clearly reveals that major increases in employment have occurred at times when there have been marked increases in equipment. In other words, heavy investment in expansion of the scale of operations has been the cause of the creation of new jobs at Nytil. The investment for each new job created is high, however, and this is

a significant barrier to generalising from Nytil's experience.

Increases in output have kept ahead of increases in employment in the recent phase of expansion, 1960-1963, so that average labour productivity has been rising 11-12% per year. These increases in productivity can be attributed both to investment in modern machinery, and to general improvements in operating efficiency; output has expanded more rapidly than either investment or employment.

The fact that labour has been economised in the 60's is probably related to Nytil's efforts in selection, on-the-job training and the use of incentive bonuses, and other organizational measures. In particular, the on-the-job training scheme looks, to all intents and purposes, as though it will remain a permanent and essential feature, which might be applied more generally.

With regard to wages, there have been across-the-board increases in both 1963 and 1964 with a slight indication that the minimum wage increase between 1962 and 1963 may have led to larger percentage rises near the bottom of the scale, even though the Nytil scale is above the minimum. It is also notable that at the same time average labour productivity has been increasing rapidly but it appears that the increases in wages have been increasing even more rapidly.

TABLE I

CAPITAL EQUIPMENT 1956-1966 (Est.)

Year	Looms	Spindles	Fixed Assets as from Jan 1 (£)	Additions During Year (£)
1956	330	10500		
1959			1647663	191672
1960	335	11920	1839335	208219
1961	571	18696	2119554	687139
1962	658	19620	2806673	299732
1963			3106425	55842
1964			3162267	
1966 (est.)	1000	33000		

TABLE 2

OUTPUT AND EMPLOYMENT 1957 - 1964

Year	Cloth Produced Yards	Sales £ Value	Total Employment Number
1957	7,500,000		800*
1958	12,500,000		1200*
1959	13,311,000	1432054	1500*
1960	14,844,000	1777292	1800*
1961	18,447,000	2249729	2300*
1962	26,844,000	2939203	2562
1963	30,073,000	3471420	2572
1964	30,213,000		2659

* Approximate

TABLE 3

NYTIL WAGE STRUCTURE JANUARY 1965

Grade	Skill-category	Average Take-Home Pay Shs/Month	Range of Take Home Pay Shs/Month		Average Share of Production Bonus in Take Home Pay %
1	Probation	122/45	-		-
2	Unskilled	190	166	240	40
3 & 4	Semi-skilled	237	183	310	44
5-10	Skilled	411	293	539	44
11-14	Highly-Skilled	645	586	732	42
A-F	Supervisors	949	824	1109	36

Note: Wages refer to a 30 day month (4.33 weeks); 48 hours a week. Non-variable portion of take home pay consists of - basic wage, conduct bonus, attendance bonus and rotating shift allowance. The remainder is production bonus.

TABLE 4

ANALYSIS OF AVERAGE WAGE CHANGES

25th WEEK FOR THREE YEARS (sh/week)

Grade	1962	1963	1964	Change 62/63	Change 63/64
2	n.a	41.49	43.58	n.a	2.09
3	41.05	48.60	51.15	7.55	2.55
4	46.25	53.80	57.84	7.55	4.04
5	54.45	62.80	65.41	8.35	2.61
6	66.75	73.10	77.09	6.35	3.99
7	76.00	86.95	90.43	10.95	3.48
8	83.40	92.55	96.37	9.15	3.82
9	98.50	104.40	112.30	5.90	7.90
10	107.95	119.30	125.29	11.35	5.99
11	120.80	123.60	131.86	2.80	8.26
12	136.90	134.95	146.67	-1.95	11.72
13	137.80	151.45	153.41	13.65	1.96
14	167.10	159.65	176.47	-7.45	16.82
A	168.30	179.05	188.93	10.75	9.88
B	189.05	187.25	203.40	-1.80	16.15
C	192.50	201.40	212.20	8.90	10.80
D	203.30	214.00	224.86	10.70	10.86
E	220.05	229.10	237.47	9.05	8.37
F	230.35	237.10	252.69	8.75	13.59

Source: Nyanza Textiles Files.

TABLE 5

ANALYSIS OF WAGE BILL RELATIVE TO OTHER COSTS

Year	Sales Value (£)	Value of cotton Purchased (£)	Crude Value Added (£)	Estimated Wage Bill (£)	Share of Wage Bill in Crude Value added (%)	Share of Wage Bill in Sales Value (%)
1959	1432054	490860	941194	218100	23.2	15.2
1960	1777292	476614	1300678	290520	22.3	16.4
1961	2249729	989728	1260001	422280	33.5	18.8
1962	2939203	1048730	1890473	511000	27.0	17.4
1963	3471420	1153581	2317839	630000	27.2	18.2

Source: Nyanza Textiles and Enumeration of Employees. The Wage Bill for 1959 to 1961 is the product of workers at Nytil and estimated average wage, obtained by projecting the 1962 average wage backwards in proportion to the Jinja average wage rate as reported in the Annual Enumeration of Employees. Crude value added is the difference between cotton value and sales value. The difference between crude value added and the estimated wage bill = gross operating profits and other costs (excluding cotton costs).

Case Study No.2 Uganda Breweries Ltd.

A. Introduction

Uganda Breweries Ltd., unlike Nytil, is a private concern. It has a capital of £600,000 subscribed by about 800 shareholders. The company which was incorporated in 1946 did not begin actual production until 1950.

The factory situated at Port Bell, seven miles from Kampala, occupies one of the most beautiful sites on the lake area. It produces Bell, White Cap, I.P.A., and Uganda Tusker beers. Experiments to brew Uganda Pilsener and City beers were in progress at the time of the study. The establishment is divided in three departments namely, Production, Engineering and Sales, which are coordinated at management level.

B. Employment

Recruitment Uganda Breweries is a small firm and does not have an elaborate internal organization such as exists at Nytil. This probably explains why there are no formal laid-down procedures in the company's recruiting. Another reason is that the jobs in a brewery do not require the dexterity and higher intelligence required in a textile concern.

There have not been large scale recruiting campaigns at the factory in recent years, recruitment being confined to the need to replace those discharged or resigning. Generally, the heads of departments are given discretion to recruit people they think are suitable.

In the engineering department, where operatives have to be either skilled or semi-skilled, the practice is to advertise in newspapers and at technical schools. Sometimes they consult the Ministry of Labour's employment exchange but this latter method, the management admits, is used less often.

In the production department recruitment is mainly for unskilled jobs like bottling and sweeping. The workers are picked from the applicants usually gathered at the gate or are brought in by old employees, but this is normally confined to people like turnboys and case-loaders except around Christmas or Easter season when more casual labourers may be taken on. At normal periods, casual jobs are covered under overtime.

For the clerks and other higher administrative jobs, the procedure is to advertize in the papers. The applicants are then called for interview.

Training The company has no specialized training schools within their departments; staying on the job for a long period appears the only way an operative can gain the experience and know-how of particular

jobs. In a brewery, the jobs are not as specialized as those in textiles so that training unskilled workers before they are taken on is less imperative. Most of the jobs in which the bulk of the factory's labour force engage need simply physical effort, e.g. cleaning tanks, cleaning the place, loading and unloading lorries.

The company appears to be putting most of its training emphasis on middle and senior management staff. It is contended that an able supervisory management will be able to direct efficiently the work force at large. Thus most of the management have either been to courses in United Kingdom or at Makerere, or to those given by the Ministry of Labour and the Federation of Uganda Employers.

Tribes The tribal composition of the labour force is as follows:-

Tribe	Employees % of total				Length of Service % of each tribe		
	1962	1963	1964	1965	0-5 yrs	5-10 yrs	over 10 yrs
Baganda	29.9	29.3	34.5	27.1	65.8	26.3	7.9
Basamia (Bukedi)	5.1		9.3	10.0	64.3	28.6	7.1
Acholi	2.6	3.9	3.9	3.6	70.0	20.0	10.0
W. Nile	2.6	3.2	2.7	3.6	40.0	40.0	20.0
Luos (Kenya)	43.2	46.8	33.3	37.1	60.6	26.9	12.5
Others	16.7	16.8	16.3	18.6	65.4	23.1	11.5

Like Nytil, employees at Uganda Breweries come from various regions of Uganda and neighbouring states. But what stands out remarkably on the tribal composition of employees is that for several years, the Baganda and Luos* have constituted more than two thirds of the work force at the factory. In 1963, the Luos were almost half of the total work force.

Reasons advanced for the large contingent of Kenyans include the place being easily reached by a steamer and the factory being located near the three areas of Greater-Kampala which are densely populated by Kenyans, namely Luzira, Kiswa and Nakawa. What is probably more significant than the large number

* Almost all Luos have been grouped as Kenyans.

of Kenyans is the fact that they stay longer and accept manual work. For example, over 90% of the Kenyans at the factory have been there for at least two years (compared to about 75% for Baganda).

Promotions Heads of departments usually working on the advice of foremen decide when and who is to be promoted. Availability of new jobs in the factory may speed up the rate of promotion by the "closing ranks" system. Thus, as management seems to put less emphasis on retraining and more on learning by experience, those engaged in manual tasks have to show willingness and capacity to work and have to have served for some years before they are likely to gain promotions. It is in skilled and semi-skilled jobs that educational background is seriously taken into account.

Working Hours The company operates on a 45 hour-week, excluding overtime. General labour works for eight hours a day. In the sections directly concerned with beer brewing e.g. engineering (boiler and compressor rooms, water plant) and brew house, fermenting and filter sections, operatives work in three shifts, eight hours each shift. In "empty bottles" and "full cases" stores, where work has to be geared to sales, employees work in two shifts of eight hours each. The sales people work for eight hours a day after which they claim overtime allowance. There is a 24-hour askari guard in four shifts. Leave and travel allowance is allowed on a scale rising with completed years' service up to five years.

C. Capital Equipment, Output, Employment and Wages

Capital Equipment The establishment is heavily mechanized. The process of beer making apparently demands careful handling of ingredients to protect them from contamination and this the machines seem to do better than human beings. In fact, from the compressors to the beer-storage tanks, it is all machine with very few men who make minor adjustments.

Most of the machines were installed before the factory started operating. The management contends that changes in machinery which have been made in recent years were designed either to speed up the process of beer production or to improve efficiency. By and large, these changes have been very minor. This is verified by 1960 to 1963 figures of additions to fixed assets (Table 1) - additions of only 1.9% p.a.

A £250,000 expenditure is planned for the 1965/66 fiscal year, however. This will be an expansion of about 29% in fixed assets which will increase capacity slightly less, around 20%, but as noted below

will have little effect on employment.

Expansion and introduction of new machinery is a prerogative of management after consulting the shareholders. Such expansionary moves are also guided by market survey results. The 1963/64 sales figures show that because of the Kampala Agreement, beer export to other East African countries declined. For example, exports to Tanzania declined by 61%. The decline in exports to Tanzania will be presumably more than offset by increased production for Uganda due also to the Kampala Agreement under which imports from Kenya must be reduced. This could be the only justification for the planned expansion.

Output Output, as Table 2 indicates, increased substantially from 1955/56 to 1957/58. Then for the next two years a decline of over 40% in output was experienced, mainly due to the trade boycott. Since 1959/60 the recovery has been less dramatic but steady. For cases, the increase has averaged about 4.8% per year from 1960/61 to 1963/64 compared to about 10.2% for sales value which is inflated by excise tax. However, the steady recovery was slightly but genuinely interfered with by the Kampala Agreement of 1963/64.

Estimates after 1965/66 expansion appear very optimistic. The expansion envisages an increase in sales of about 54% in cases and about the same in sales value.

On the other hand profits increased dramatically in 1961/62, and since then have continued to increase but at a declining rate, by 34% in 1962/63 and 14% in 1963/64.

Employment The factory's labour force did steadily build up after operations started and by 1956, it had more than doubled to about the 400 level. Since 1956, the employment picture is rather gloomy. For 1957 and 1958, it remained stagnant. The abrupt fall in output due to the trade boycott cut employment nearly in half in 1959, from which it recovered to around the 300 level in 1960. From 1960 up to the present it fluctuated around the 300 mark, with no sign of recovery to the 1956-58 level of about 400.

It is notable that the management envisages a 20% increase in capacity in the 1965/66 expansion but expects that only 6 to 10 people will be taken on. This is because the degree of mechanization is very high. For example in the brew house, which has an installation of three pairs of large brewing pots and a milling machine, the company needs only three or four people to man the operations. In the cooling and collecting tank sections, the major work is that of cleaning the tanks and the floor. The

liquid is moved from one vessel to another by automatic pumping. In the bottling hall, washing, filling and labelling of bottles is all done by machine, and movement of bottles from one process to another is made rapid by conveyors and pumps. The only sections which employ many people are those which store empty and full cases of beer and the transport section.

Trends in Output, Employment and Average Productivity 1960/61 - 1963/64

	Sales Value	Number of Cases
Annual growth in output	10.2%	4.8%
Annual growth in employment	-1.7%	-1.7%
Annual growth in average productivity	12.1%	6.6%

Wages The company pays on a monthly basis. The starting pay for an unskilled worker is as high as Shs 180/- per month. This of course is higher than the minimum wage. The trade union, Uganda Breweries and Beverages Worker's Union, was formally recognized in March 1962.

Actual figures on 1962 negotiated wage are not available but as Table 4 shows there were notable gains especially in the low paid groups. Details of annual agreements with the Union since 1962 are given below.

1. March 1, 1963:- agreement for 1 year, by which the minimum wage was raised from shs 120/- to shs 150/- per month, with the following consequential increases:

below	Shs 120/- per month	Shs 150/- or 25%
between	120/- & 150/-	150/- or 15%
between	151/- & 285/-	15%
between	286/- & 460/-	12%
between	461/- & 850/-	8%
over	851/-	5%

2. March 1, 1964:- this was a two year agreement covering 1964 and 1965 by which the minimum wage was raised from shs 150/- to shs 165/- per month in the first year and there were the following consequential increases:

between	Shs 151/- & 166/- per month	shs 15/-
between	161/- & 300/-	20/-
between	301/- & 400/-	25/-
over	401/-	30/-

Second Year - March 1, 1965

Minimum wage was raised from Sh 165/- to Sh 180/- per month.

Consequential increase:

Between Sh 165/- & Sh 180/- ... ... Sh 15/-

Between	Shs 181/- & Shs 300/-	Shs 25/-
Between	Shs 301/- & Shs 400/-	Shs 25/-
	Shs 401/- + ...	Shs 30/-

Clearly, the 1963 wage agreement had a more marked closing-up effect on the wage structure than either part one or part two of the 1964 agreement. As shown above, the increase in 1963 ranged from 25% to 5% while 1964-65 increases ranged from 14% to 8%.

Estimates of the share of the wage bill in sales value show (Table 5) that it changed very little for about four years 1955-58, and then suddenly went up in those famous bad years when the factory was hit by the trade boycott. Since 1960/61, both in terms of sales value and crude value added, the share of the wage bill has very slowly declined. The growth trends from 1960 to 1964 are: wage bill 7.0% per annum, employment -1.7% per annum and average wage 8.7% per annum. Thus the trend in wages has been less than the trend in productivity using sales value (including excise) as an output measure, but somewhat more than the trend in productivity using number of cases as the output measure.

D. Conclusions

Summarising, the situation at Uganda Breweries with regard to employment trends is almost the reverse of what we saw at Nytil. At Nytil, employment had been increasing and was expected to continue to do so. At Uganda Breweries, however, employment declined from 1958 to 1960, and has remained stagnant since then. This state of affairs since 1960 agrees with the industrial employment pattern in the country as a whole. What is more distinct is the abrupt decline in employment at the Breweries from 1958 to 1960.

The question pertinent to our analysis is "why has employment after partial recovery from the 1959 trade boycott not gone up again to the 1956-58 mark?" Discussion with the management suggests some possible reasons.

Measures have been taken to economise labour, especially since 1959. The management contends these measures were taken to overcome the deficit resulting from the trade boycott and to meet the increasing wage bill. The economy measures have been of the two types. Firstly, there has been intensified training of high level and middle management staff. Most of the men in these categories have undergone training and there is clear evidence that the level of efficiency has gone up due to improved supervisory measures. Secondly, improved use and general layout of machinery has reduced the need for labour. For example, in the bottling hall, machines

like the washer, filler, pasteuriser, labeller and other auxiliaries like conveyors and pumps have been installed in pairs so that in case of breakdown for one machine, another one remains in operation.

Another seemingly important factor is that it is clear that the 1959 trade boycott and the recent Kampala Agreement have interfered with the company's efforts to expand output. Output in cases in 1963/64 was still below 1955/56 and the average annual increase in output since 1960/61 has been only 4.8%.

On wages, there have been notable increases since 1961 with the highest increases in 1963. The 1963 increase had a definite closing-up effect on the wage structure, as the major gains were made by people at the lower end of the scale. The annual increases in wage bill since 1960 appear to be greater than increases either in output or average productivity.

Thus one can say that the inability to expand sales and continuing increases in wages have made management use labour sparingly by employing organizational measures and using capital equipment more efficiently.

TABLE 1

CAPITAL EQUIPMENT

Year	Fixed Assets (£)	Additions (£)
1959/60	795,698	
1960/61	811,884	16,186
1961/62	833,319	21,435
1962/63	844,124	10,805
1963/64	858,716	14,592

TABLE 2

OUTPUT 1955 - 1966 (EST)

Year	Sales (cases)	Sales (£)	Profits (gr) (£)
1955/56	358,594	681,329	
1956/57	365,503	694,455	
1957/58	426,800	810,920	
1958/59	361,091	686,073	
1959/60	208,185	421,574	
1960/61	282,787	588,395	32822
1961/62	304,813	654,102	68360
1962/63	348,704	826,418	90868
1963/64	324,037	785,815	104167
1965/66 (est)	500,000	1,212,500	

Note: Sales value includes excise duty. The fiscal years run from August 1 to July 31.

TABLE 3

EMPLOYMENT 1950 - 1965

Year	Europeans	Asians	Africans	Total
1950	3	13	131	147
1951	5	14	121	140
1952	5	18	154	177
1953	6	18	187	211
1954	8	20	226	254
1955	7	23	288	318
1956	11	33	370	414
1957	11	31	334	378
1958	11	33	368	412
1959	13	27	190	230
1960	9	27	259	295
1961	7	28	266	301
1962	7	21	234	262
1963	7	21	280	308
1964	7	21	258	286
1965	6	21	280	307

Source: Annual responses to Enumeration of Employees, by permission of Uganda Breweries. Note figures are for month of June.

TABLE 4

WAGE STRUCTURE (AFRICAN EMPLOYEES)

Wage-range	Numbers						
	1958	1959	1960	1961	1962	1963	1964
50- 59	199	23					
60- 69	22	30					
70- 71	15	13	25	63	6		
80- 89	27	13	5	8			
90- 99	2	14	88	58	3		
100-124	21	25	37	27	90	7	
125-149	26	13	10	13	42		
150-174	13	6	19	20	21	141	121
175-199	11	11	12	7	8	26	12
200-299	32	42	38	37	42	52	55
300-399			7	9	17	21	32
400-499			7	10	9	13	14
500-999			11	13	14	18	16
1000-1499					9	6	4
1500+						3	4
	368	190	259	265	261	287	258

Source: Annual responses to Enumeration of Employees, by permission of Uganda Breweries.

Note: 1962 includes a small number of employees at Jinja, Mbale, Masaka and Fort Portal depots. 1963 includes 7 employees at Mbale.

TABLE 5

WAGE BILL RELATIVE TO OTHER COSTS

Year	Sales value (£)	Value of major inputs (£)	crude value added (£)	wage bill (£)	Share of wage bill in value added (%)	Share of wage bill in sales value (%)
1955/56	681329			62682		9.3
1956/57	694455			56908		8.2
1957/58	810920			67271		8.3
1958/59	686073			57624		8.5
1959/60	421574			62270		14.7
1960/61	588395	82831	505564	77523	15.3	13.2
1961/62	654102	96441	557661	78323	14.0	12.0
1962/63	826418	103351	723067	91820	12.7	11.1
1963/64	785815	96940	688875	94765	13.8	12.1

Case Study No. 3

British American Tobacco (B.A.T.) Uganda Ltd.

A. Introduction

In this case study there will be less technical probing into such matters as substitution of capital for labour, capital job ratio etc. because the necessary information was regarded as classified so that the B.A.T. management were disinclined to divulge it. However, B.A.T. is such a highly organized and old firm that its exclusion altogether would leave an unfilled gap in our case studies of large employers of labour.

The Company, like Nytil, has many international connections. It is part of a world-wide group of companies, the B.A.T. Company Limited. The B.A.T. is believed to run over 100 factories in as many as 50 countries. The Jinja factory, the oldest in East Africa, was built in 1928. The company has its sales headquarters and also a leaf processing plant in Kampala and a research centre in Tumbi in Tanzania. Factories were opened at Nairobi in 1956 and at Dar-es-Salaam in 1961.

The bulk of the tobacco leaf is grown in Uganda mainly in the West Nile District. The company has gone a long way to promote tobacco growing under the Master Growers Scheme for which the company provides aid in the form of technical assistance, equipment and trained staff. With this aid, the farmers are able to increase their acreage output.

B. Employment

Recruitment For unskilled or bottom scale employees, the company uses the two methods we have come across before, picking from applicants at the gates and the Labour Department's employment exchange. Casual workers are employed during the tobacco harvest (July to September) and occasionally they are taken on to do odd jobs at the factory. Some of the promising casual workers are kept on a waiting list until a vacancy is available and they are called in.

Most of the skilled and semi-skilled operatives undergo some kind of training or other. Thus when a skilled or a semi-skilled job falls vacant, the practice is to appoint from the ranks. In cases of supervisory posts, the company will normally advertise in the papers. For technical staff the company insists that applicants be in possession of a government trade test certificate. Those who have completed courses at Uganda Technical College (former KTI) are also given equal consideration.

For almost all clerical posts, the procedure is to advertise in the papers. The minimum educational standard is school certificate or any recognized

clerical certificate.

The applicants are not employed straight away but have to go before a selection board. In the case of unskilled employees, this condition may be waived. The recruits who pass through this hurdle are then taken on for a probationary period of three months. When on probation, they are paid full wage but are not regarded as established employees.

Aptitude Test The company's plans to introduce an aptitude testing unit in Uganda are almost complete. At both Dar-es-Salaam and Nairobi, operatives have to pass such a test before they are taken on, but these testing units are run by the Governments of Tanzania and Kenya respectively. The Uganda Government has no such testing unit.

Over the years, the company has got to know its people. This experience has been used to alter deficiencies that would otherwise have existed because of no aptitude testing. People are carefully supervised and are moved from job to job until they are assigned to the jobs for which they have most aptitude.

The tribal composition of the labour force was as follows in 1965:

Baganda	20.2%
Basoga	27.6%
Basamia (Uganda)	7.9%
Acholi	6.1%
Kenyans	17.3%
Other Ugandans	15.6%
Other non-Ugandans	5.4%

The tribal composition of employees follows the pattern we have come across already at Nytil and Uganda Breweries: the Basoga, Baganda, Basamia, Acholis and Kenyans form the largest group.

The following statistics of length of service show high stability:

Years	No. of Employees	% of total
0 - 5	33	8.4
6 - 10	182	46.4
11 - 15	126	32.1
16 - 20	38	9.7
21+	13	3.3

As the figures show, over 90% of the factory's work force has been there for at least five years. The average length of employment for the factory is 12 years.

According to U.N. study* the rate of turnover in 1954 was 8% and in 1962 it had fallen to .5% and in March 1965 the average of the previous twelve months was as low as .35%.

The rate of turnover for August 1964 was relatively high (2.5%) because of rumours that the government would confiscate all provident funds. The trend of decline in the rate of turnover is clear and the people leaving are mainly elderly ones.

Many reasons have been suggested for the low leaving rate of the work force at the factory: firstly wages are generally higher than those paid by most employers in the same area and secondly factory conditions are good. The employees get free uniform, medical attention, tea and lunch; the factory premises are clean and not noisy and work is less manual than elsewhere. These advantages plus difficulty involved in getting new employment and the fact that people are getting more urbanized combine to produce a low rate of turnover.

Education The educational composition of employees 1965 is summarised as follows:

Illiterate	136	34.7%
P1 - 6	189	48.2%
J1 - 3	54	13.8%
S1 - 4	13	3.3%

Most of the workers in the factory have either had no education or have been to Primary Schools only. This evidence here would seem to agree with our earlier conclusion at Nytil that experience and an intensive on-the-job training programme decide the factory's labour performance standards and not formal education.

Promotions The management contends that it is basing its promotion consideration on two criteria: merit and length of service. But when the case in point includes foremen, clerks or accountants, then educational attainment may be of greater importance. Opportunities for promotion are limited by the vacancies that become available in the next higher grade.

Working Hours The factory has no shift system. It has a working week of 45 hours, 9 hours a day Monday to Friday. The nine hours include teabreaks in the mornings and afternoons. Leave entitlement increases from 18 days to 21 days after a year's

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* Social Factors Affecting Labour Stability in Uganda E/CN/14 SDP 20

service and allowances are scaled according to grade between 50/- and 300/-. In addition, compassionate leave with no pay can be granted; a maternity leave of three months at half the wage rate is granted. Miscellaneous cases like sick leave are granted on individual merit.

Training The company has one of the most comprehensive training schemes in the country.

(i) Operatives. On the job training is the most important type of training an operative has to undertake. The training is designed to equip a worker with a first hand knowledge of a particular machine. A foreman or a senior machine operator draws up a training programme for a particular group of machines. Then the new employee is put under someone. The training is given individually or just to a few and not in "school" as at Nytil. The company used to train many operatives in a group when there were large-scale recruiting campaigns e.g. for the Nairobi factory. When an employee is training for a particular job, he trains in a grade below that job. If he is unsuccessful, he is withdrawn and put back to his former job.

(ii) Clerks, Technical Staff and Supervisory Staff In addition to Government sponsored courses e.g. training within industry, the company has its own training schemes for the above jobs at its Nairobi training school. Clerks go to the Nairobi training School and are taught general principles of accounting. They are also indoctrinated in the Company's accounting methods. Technical staff are mainly taught the setting and functioning of the machines they are expected to operate. The course puts more emphasis on the principles on which these machines run. When they return to the factory, a similar course in nature is run but this time putting emphasis on the practical aspect and also putting special attention to particular needs and conditions of the factory. The courses at the factory are supervised by technical superintendents of each department. The supervisors also train at the Nairobi school. The course covers both management principles and a form of training within industry but more oriented to the tobacco organization.

All the company's employees in these three groups have to go through this training at one time or other. The courses generally last for three weeks. In addition, the clerks and supervisors attend courses run by the School of Social Studies at Kikuyu, Kenya. For all the training, the company meets the cost.

(iii) Management Formerly the management staff used to attend courses sponsored by the British

Institute of Management at the Labour Department here or at University College, Nairobi. At present the arrangement is for the staff to attend government run courses at East African Staff College and Federation of Uganda Employers run courses on Industrial Relations.

New recruits straight from School or College, are put in the departments for which they are selected for a period of about a year to two years. Then for a more intensive technical and management knowledge, they may be sent to the company's school at Sussex in the United Kingdom, which is run by the B.A.T. Group. The successful candidates then join the management rank.

C. Capital Equipment, Output, Employment and Wages

Capital Equipment Like Nytil, B.A.T. Uganda is capital-intensive and the machines are modern. Since the standards at which the establishment is being run are those followed by 'greater' B.A.T. it is probable that timing and introduction of new machinery is dictated by international technological advancement.

Machines making cigarettes in the factory produce over 1000 per minute. Packing is also done by machines - packing over 5000 cigarettes a minute. These machines are provided with electrical detectors which will cause the machine to stop when there is anything wrong with the packet.

Output The available figures (Table 1) show that the upward trend in output which must have started in earlier years ended in 1955. The increase in 1955 over 1951 was of about 25.8%. The annual increase for those years averaged about 5.9%.

The declining trend started in 1956. In that year the decline over the previous year was about 42.3%. This can be attributed to the establishment of a new factory in Nairobi. It is however notable that when the factory at Dar-es-Salaam started operating in 1961, the decline in output at the Jinja factory was negligible. The explanation cannot be got directly from import figures because imports of cigarettes into East Africa in 1961 went up by 12.1%. From 1960 to 1964, the decline in output averaged about 2.9% per year.

Employment Table 2, shows that the decline in employment which began over 15 years ago is still continuing. By June 1964 the company was employing 71% people less than they employed in June 1950. Employment declined in those years (1950-55) when output was increasing at an annual rate of 5.9%. The annual rate of decline from 1951 to 1955 was about 6.5%.

With regard to productivity trends, in 1951 to

1955 when output was increasing at an annual rate of 5.9% while employment was declining at about 6.5% annually, average labour productivity increased at an annual rate of 13.3%. In 1960-64 however when both employment and output were declining but the former declining faster (6.2%) than the latter (2.9) productivity only increased by 3.4% each year.

Wages The Company pays on a monthly basis. Like Nytil, B.A.T. Uganda has a job evaluation grading system. The grades range from A to C for foremen and 1 to 5 for skilled operatives and 6 is general labourers (unskilled).

Grades A & B are confidential or non-Union. That is, people in these grades cannot take active part in Union activity. They may however give moral support to some Union issues.

The grading system at Jinja is based on the results from the job evaluation exercise which took place at the Nairobi Factory. In 1960, a job evaluation expert, using the 'point scoring' method, evaluated all the jobs in the company's organization.

The starting monthly scale of shs 249.90* (Table 3) for the bottom grade is of course, one of the highest in the country. Needless to say, it is higher than the minimum wage. As many as 65.6% of the employees are in the bottom three scales; of the female employees 91% are in the bottom three grades compared to 56% of the male employees.

There is a yearly review of increments. Usually the review in favour of increase or no increase depends on the results of the factory's general performance. If an employee reaches the maximum of his grade, there will not be any further increment until he or she is promoted to a higher grade and therefore a higher wage-scale.

With regard to the wage-structure (Table 4) the upward movement since 1958, with the bottom people moving faster than the top ones has continued. Even with the inclusion of the company's employees at Kampala in 1962 and 1963 figures, the major gains in 1963 stand out. For example,in 1962, only 33.3% of the work force were getting over shs 200/- a month. In 1963, however, almost all the employees (98.9%) were getting more than shs 200/- per month. An analysis of trends in wage bill, employment and average wage for 1960 to 1964 shows that the wage bill increased at 3.3% per annum, employment declined at 6.2% per annum and average wage increased at 10.2%

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* This amount incorporates end of the year gift which the company gives its emplovees.

per annum. Generally, the wages have been increasing faster than average productivity.

Conclusions The employment behaviour at B.A.T. Uganda is not the same as that of Nytil because there employment was not declining. It is not exactly comparable to the situation at Uganda Breweries either, because there employment increased for the 9 years of the previous decade and then levelled off. It agrees with recent industrial employment trends in the country but the disturbing thing about B.A.T. Uganda case, is that the downward trend started over 15 years ago.

It is notable that in 1955 when employment had declined by 36% over 1950, output for the same period had gone up by about 20%. Since 1956, output has declined by about 32% while employment has roughly been reduced by half.

There has definitely been some effort to save labour and from our analysis, the following means would seem to have been most important:

(i) training; on-the-job training is deeply entrenched in the company's hiring practices and the trend appears to be expansion of the company's investments in creation of skills.

(ii) increasing mechanization; the technological standards at which the company is operating are very high - those set by 'international' B.A.T. Here again, the trend appears to be more use of capital per man employed.

(iii) better organisation of the work force; this has been achieved through careful selection methods and improved supervisory standards due to training at all levels of management staff.

With regard to wages, the trend has been upward. In contrast to output declining by about 32% since 1956, the total wage bill has gone up by about 83%. Thus the soaring wage bill could be one of the reasons that has led management to use labour sparingly. On the wage structure, the bottom grades have made most gains over the years, with 1963 gains having the biggest closing-up effect.

TABLE 1

OUTPUT 1951 - 1964

YEAR	CIGARETTES (TONS)	CHANGE OVER PREVIOUS YEAR (TONS)
1951	2439	
1952	2592	153
1953	2764	172
1954	2930	166
1955	3069	139
1956	1770	-1299
1957	1424	- 346
1958	1449	25
1959	1457	8
1960	1360	- 97
1961	1294	- 66
1962	1297	3
1963	1328	131
1964	1206	- 122

Source: Statistical Abstracts - Uganda

TABLE 2

EMPLOYMENT 1950 - 1964

YEAR	EUROPEANS	ASIANS	AFRICANS	TOTAL
1950	11	44	1353	1408
1951	13	42	1128	1183
1952	9	43	891	943
1953	10	53	868	931
1954	14	45	840	899
1955	12	36	854	902
1956	12	39	681	732
1957	13	44	568	625
1958	14	39	510	563
1959	15	35	487	537
1960	14	34	475	523
1961	12	29	468	509
1962	19	36	735	790
1963	18	31	632	681
1964	7	20	378	405

Source: Annual responses to Enumeration of Employees by permission of B.A.T. Uganda

Note: 1962-63 figures include employees in Kampala

TABLE 3

EMPLOYMENT BY WAGE GROUP - 1965

GRADE	NO OF EMPLOYEES Male	Female	MEDIUM SCALE Shs per month	RANGE shs
6	65	38	277.34	304.78 249.90
5	61	46	362.60	406.70 318.50
4	33	13	458.15	550.76 365.54
3	50	3	578.20	692.86 463.54
2	23	7	726.18	858.48 593.88
1	28	-	940.80	1074.08 807.52
C	23	-	1304.38	1524.88 1083.88

Notes: Grades 1 to 5 are skilled operatives; Grade 6 is unskilled labour. Confidential grades A & B have 9 male employees. Management 9 male employees and 2 secretaries.

TABLE 4

WAGE STRUCTURE (AFRICAN EMPLOYEES)

RANGE	YEAR 1958	1959	1960	1961	1962	1963
70-79	97					
80-89	94	93				
90-99	81	78	21			
100-124	71	118	130	25	46	
125-149	39	33	122	149	294	
150-174	26	22	25	87	105	
175-199	14	36	15	25	45	7
200-299	88	107	70	80	94	380
300-399			39	35	76	90
400-499			18	18	26	42
500-999				49	39	95
1000-1499					10	13
1500+						5

Source: Annual responses to Enumeration of Employees by permission of B.A.T. Uganda

Note: 1962-63 figures include the company's employees in Kampala

Case Study No.4 KILEMBE MINES LTD.

A. Introduction

The mines are right at the foothills of the Mountains of the Moon. The existence of copper in this part of the country has been known for over sixty years, but exploratory work on actual ore deposits did not begin until 1948. The exploratory survey, which included physical layout of the ore and economic feasibility of the entire mining operation, was undertaken by Frobisher Limited, a Canadian concern. The mine began production in 1956, the same year that the Western extension of the railway from Kampala reached Kasese - 8 miles from the mine.

The process of copper making by the company can be divided into four stages.

(1) Rock breaking, mainly underground. The copper content in the rock is about 1.9-2.0%. This is about a half of one percent above what is regarded as the break-even point (1.5%).

(2) A mill, or concentrator, is situated near the East Gate, in which the ore is ground and crushed. It is treated with reagents and then produces a concentrate averaging about 26 to 30% copper.

(3) The concentrate is transported by pipes to the drying and filter plant at Kasese.

(4) The company's smelting plant is located at Jinja. On average 6500 tons of concentrates are received monthly at the smelter from Kasese and at the time of this study, about 1500 long tons of copper were being produced every month.

Kilembe Mines is largely private owned. It has a capital of £5,970,000 subscribed by Kilembe Copper-cobalt Limited - a Canadian offshoot of Falconbridge Nickel Mines Ltd., (70%); the Commonwealth Development Corporation (20%) and the Uganda Development Corporation (10%). The managing agents are Falconbridge of Africa Limited.

B. Employment

Recruitment At the time of the visit, there had been no recruitment of new employees for about three months. The mine was in a period of reorganization, an exercise which involved cutting down labour considerably, but the company has stated since that this was a temporary measure.

Initially, the recruiting officer used to go to Kasese to recruit unskilled workers, but this was changed to the present system of recruiting at the Mines Police Control Post about two miles from the actual mining area. The men looking for jobs come from both within and without the mining village. It is believed that nearly 2000 people live in the location as dependents and a big fraction of these is

unemployed.

Unskilled employees form the largest contingent at the mine and are mostly in grades E and F (see Table 2). Those on the surface do ancillary jobs like sweepers and messengers, but the largest proportion works underground. Each recruit undergoes a medical examination before he is registered as the company's employee.

Promoting from the ranks when a place falls vacant is a common practice in semi-skilled grades and these grades are sometimes filled by taking on people who appear at the mine when there is a vacant post

The skilled grades are filled by screening written applications and then calling promising applicants for interview. Clerical and professional posts are usually advertised in the papers. The tribal composition of employees in 1964 and 1965 is shown below distributed between mining and smelting.

	1964		1965	
	Mining	Smelting	Mining	Smelting
Bakiga	1678	3	1933	2
Batoro	872	2	1316	4
Banyarwanda-Barundi	327	2	368	2
Kenyans	226	134	208	138
Banyankore	197	8	216	10
Others	535	157	710	161
	3855	306	4571	317

Source: Annual responses to Enumeration of Employees by permission of Kilembe Mines.

Despite Kilembe's remoteness from main urban centres in the country, the mine has been able to attract workers from all over Uganda and from neighbouring states. The Bakiga formed the largest tribe (38.4%) of all employees at the mine in 1965 and it is believed that, at one time in the 1950's, they formed over 80% of the work force.

The immigrant element in the composition of the company's labour force is conspicuous. The largest group of immigrants come from the usual sources, namely Rwanda and Burundi, Sudan, Congo and Kenya. It is noteworthy that the number of Kenyans fell slightly in 1965 as compared with 1964 while all other groups increased. The large number of Kenyans at the smelting plant in Jinja stands out and it is interesting again to note that, among the Kenyans, the Luos form over 50% of the labour force at the mine.

The labour turnover at Kilembe is not as low as

at B.A.T. (Uganda) which is understandable in view of the nature of work in a mine. However, considerable changes towards labour stability have been taking place.

In addition to the general reasons like increase in wages and job-scarcity in the country, particular reasons for stability at Kilembe can be found in the facilities provided; the company builds houses and provides water and electricity for employees and charges a minimal rent: medical services are available at the company's hospital which is reasonably well-staffed and there are four schools for employees' children. Thus with regard to social amenities, Kilembe compares favourably with larger towns in the country.

Since, in the history of the mine, most workers have come from Kigezi, opportunities there influence labour stability to a certain extent. The scarcity of land in Kigezi for example has made some Bakiga go out in search of new opportunities and recently, the drought and famine is stated by management to have strengthened this tendency.

Working Hours The mine has a 48 hour working week, 8 hours a day Monday to Saturday and the mill operates on a three-shift system.

Training The company has an elaborate training scheme. There used to be an aptitude testing unit but this was recently abandoned. The management contends that since labour is getting more stable the marginal advantage obtainable from aptitude testing will be very small. The company knows its labour and knows how to fit the new comers into the general working pattern. In the high peaks, it is contended that training alone has been costing about £3,500 a month.

Most labourers, whether they are going to work on the surface or underground, undergo some form of training after recruitment. There is the surface training school for induction. At this school, workers are taken to the lamp room and are taught how to fetch the lamp, they are taught the geography of the area, meet company personalities and learn elementary mining principles regarding regulations and safety.

Those who are going to work underground are taken to the Underground Training School where they spend about a week acquiring experience in lashing, tramming, etc.

For operatives such as loco-drivers, machine operators and scrapers, the training is mostly of the on-the-job type and is carried out in the Underground School. Most electricians who join the company are already trained.

Training for supervisors is undertaken both on the surface and underground in special courses which put emphasis on supervisory techniques and the trainees are also taught English. The course is designed to upgrade the standards of middle supervisory men.

Clerks of almost all levels attend evening classes where they learn typing, English and elements of book-keeping and accountancy. Courses are provided by company personnel and supplemented by those sponsored by the Extra-Mural Department, Makerere.

Courses for shift bosses and above were initially sponsored on a tripartite basis by the company, the Ministry of Labour and Federation of Uganda Employers with emphasis on industrial relations and management techniques. Recently, however, the company engaged an industrial relations expert and therefore it is no longer necessary to run the course on a tripartite basis.

The mines' training programme is undergoing drastic scrutiny and reorganization. The moves seem to be designed to reduce labour but maintain standards by increasing efficiency. This, it is hoped can be achieved through intensive training programme of supervisors. At the moment, there is one supervisor to every four workers and the plan is to alter the ratio to one supervisor to ten workers. There are about 300 maintenance workers underground, the plan is to reduce this number to 50.

Other measures to be introduced include the installation of a language laboratory to teach English to workers and Swahili to expatriate officers and the establishment of an Engineering School to cater for the company's requirements with regard to technical training.

C. Capital Equipment

The mine is fairly highly mechanized though not to the extent of mines like those of Katanga. From Table 1, it can be seen that build-up of capital equipment can be divided in two phases. Between 1955 and 1960 there was a considerable and steady increase of capital, fixed assets over the period increasing by 54% (an annual rate of growth of 9%). Capital continued to increase between 1960 and 1964 but at a considerably lower rate than in the first period, fixed assets increasing by only 15% over the period (an annual rate of growth of only 3.6%).

At the time of the study the company was in the process of completely over-hauling the mine structure and this reorganization apparently has a mechanization bias. In the past, the Company could not undertake such an exercise because of lack of funds but recent large increases in copper prices have

improved the Company's financial position so that it is now able to carry out its programme.

Output Output, except with the short pause in 1961, has increased steadily. In the period 1957 to 1960, sales more than doubled (114%) and output in tons also almost doubled (94%). In both sales and tonnage measures, annual increases in the same period were over 24%. In the 1960-1964 period, however, increases were not as fast: using tonnage measures, the annual rates of growth was as low as 5.5% but the sales value of output increased by 16.5% per annum owing to the sharp rise in copper prices in 1964.

Employment Employment nearly doubled in the period 1955 to 1960 (92%). It is notable too that output (1957-60) increased by about the same amount (94%). In the 1960-64 phase, both employment and real output have continued to increase but at successively lower rates: 5.1% and 5.5% p.a. respectively.

Productivity in 1957-1960 increased at a slightly higher rate (over 12% p.a.) than employment mainly because output in this period increased faster than employment. Increase in productivity in 1960-1964 phase was pretty low - 0.4% using the tonnage measure. These trends in output, employment and average productivity are summarised below.

Phase i, 1957-1960

	Copper tonnage	Sales value
Growth in Output	24.8%pa	28.8%pa
Growth in Employment	11.2%pa	11.2%pa
Growth in Average Productivity	12.3%pa	15.9%pa

Phase ii, 1960-1964

Growth in Output	5.5%pa	16.5%pa
Growth in Employment	5.1%pa	5.1%pa
Growth in Average Productivity	.4%pa	11.0%pa

An estimate of capital investment per job gives interesting results. For example, up to 1955, it was about £2,800 per job and from 1960 to 1964 only £690 per job. This is almost a reverse of what we saw at Nytil.

Wages The Company has a job grading system. The grades are based on a job evaluation exercise which was carried out by a selected Company Committee in 1961. The Committee used a job description approach and graded labour from A to F. Grades F and E and a part of D are paid on a daily rate (i.e. on a 26 day month). Employees in grades E and F (92% of total) are predominantly unskilled; a large section of this group works underground. Increments are almost automatic "at the time and in the scale laid

down". Other things which may be taken into account before annual increments or promotions are allowed, include: previous experience, the employee's ability to write and speak English and knowledge of more than one trade skill.

The Trade Union activity among F and E group employees is very considerable. An agreement to last for 26 months was signed by management and the Union in September 1965. For the first 12 months, F and E employees were to get an increase of shs 1.04 per day. In the next 14 months, the increase will only be 56 cents a day. There are, of course, different pay rates for employees working on the surface and those working underground and employees in F group who work underground receive a production bonus on a measured basis. An attendance bonus of shs 5/- per month formerly paid to F group working in the Mill and underground was altered at the same time to an extra day's pay.

Grades A to C and a part of D are paid on a monthly basis and are employed on contract terms. Among these groups annual increments and promotions are recommended on criterion of merit. The starting rate is largely determined by educational standards and experience.

Kilembe is outside the towns covered by the Minimum Wages Advisory Board and a starting wage of shs 145/- (Table 2) can be regarded as high. However, when compared to other companies like B.A.T. (Uganda), where the place of work is not only clean but the work itself is less manual and less dangerous, labourers and operatives at Kilembe, especially those working underground, can be said to be earning very little extra monetary compensation, but the social amenities may more than make up for the conditions of work. Trends in wage bill, employment and average wage can be considered in two periods as follows:-

	1957-60	1960-64
Growth in Wage Bill	28.2% p a	6.5% p a
Growth in Employment	11.2% p a	5.1% p a
Growth in Average Wage	15.3% p a	1.8% p a

There were fantastic increases in wages in the late 1950s. Wages increased at a faster rate than employment and productivity. It is difficult to explain such a large wage increase in terms of unskilled African wages and one is inclined to attribute the greater part of the doubling in the wage bill between 1957 and 1960 to high expatriate salaries but the company states that this is not so. Kilembe at that time was still a closed system and jobs like Assistant Personnel Officer etc. were all European managed. Recent attempts to Africanize the less

technical jobs may in the long run prove a successful way of reducing labour costs.

Conclusions

At the time of the study employment prospects appeared gloomy because of the reorganization scheme underway but the labour force has since reached a higher level than ever before.

It is quite evident that the methods that were noted as being used to save labour in our previous studies are also in use here.

The growth of wages in 1960s has nearly kept in line with productivity but the growth of the work force at the mines means increased demand for social services. The Company's increasing expenditure on social services can be regarded as one of the main reasons prompting labour-saving reorganization exercises.

TABLE 1

SIGNIFICANT DATA

YEAR	GROSS FIXED ASSETS (£)	TOTAL EMPLOY-MENT (No)	WAGE BILL (£)	OUTPUT (Tons)	VALUE OF SALES (£)
1955	5,281,383	1874			
1956	6,787,497	2042			
1957	6,949,139	2621	348,754	7467	1,606,563
1958	7,292,809	2352	462,380	10831	2,118,938
1959	7,866,364	3605	641,865	11930	2,838,381
1960	8,129,488	3600	734,427	14515	3,433,718
1961	8,222,761	3760	783,000	13163	3,025,219
1962	8,478,488	4471	871,000	15331	3,583,053
1963	8,773,064	4459	924,000	15960	3,746,301
1964	9,363,933	4380	943,000	17971	6,334,861

Source: Kilembe Mines files and annual responses to Enumeration of Employees by permission of Kilembe Mines

TABLE 2

EMPLOYMENT BY WAGE GROUP

GRADE	NUMBER	SHS PER MONTH
A		4000 +
B	161	4320/2120
C		2900/1440
D	297	143/570
E	977	565/239
F	3918	258/145

TABLE 3

WAGE STRUCTURE (AFRICAN EMPLOYEES)

RANGE (shs p m)	YEAR 1960	1961	1962	1963	1964	1965
70-79						
80-89						
90-99	272	370	427	373	1163	
100-124	1649	985	1385	661	640	555
125-149	521	996	1058	903	401	2258
150-174		261	220	407	208	911
175-199	166	83		717	144	
200-299	266	269	471	498	259	527
300-399	119	145		24	68	102
400-499	38	51	168	245	182	274
500-999	23	35		50	124	98
1000-1499				1	5	20
1500-1999					1	2
2000-2499						2
2500-2999						1

Source: Annual responses to Enumeration of Employees by permission of Kilembe Mines

Case Study No.5 Sikh Saw Mills and Ginners Ltd.

A. Introduction

This is a family-owned Company incorporated in 1936. The Company which has a capital of shs 4.6 million distributed among family members, has many other business interests in Uganda and Tanzania. The headquarters are located on a 9-acre piece of land in Jinja. On this site are situated the Company's saw mill, plywood and residential estates' factories, a furniture making department, a timber drying kiln and a timber impregnating plant. Two other saw mills are located at Kitumbezi and Nakivumbi, a couple of miles from Jinja. The Company is also erecting a tea factory in Bunyoro.

B. Employment

Unskilled recruits are either got from the Regional Labour Exchange at Jinja or the factory gates. People in the category of skilled and semi-skilled are mostly clerks, drivers and machinists for whom the Company uses the Labour Exchange and advertises in the papers. There is no aptitude testing unit, but in departments like Engineering the workers seeking employment are put on a practical test (e.g. fitting a machine) before they are taken on.

Promotions are usually made on the recommendation of Heads of Sections based on ability and seniority. Passing a trade test also pushes an employee into a job with higher pay.

Annual wage increments are a matter of an agreement between the management and the Union. The agreement covering 1965 was signed in February 1965 under which an employee receives an increment for 1965 if he has completed 280 days in the previous year, as follows: unskilled 25 cents a day; semi-skilled 50 cents and skilled 100 cents

The Company has a 45 hour working week, 8 hours a day Monday through Saturday. Only the Plywood Factory operates on a three-shift system (also the askaris). The Impregnating Plant works on a two-shift basis, the rest are on a day shift.

LENGTH OF SERVICE (EMPLOYEES 1965)

Years	Number	% of Total
0-2	78	22
2-5	190	53
5-10	72	20
10+	20	5

Most employees have been with the Company for over 2 years (over 75%), but for the employees with less than two years' service, it is believed that the turnover is high. There are quite a considerable number of Luos in the Company's work force and with the relative stable situation above, it would seem to support our earlier findings, that the Luos as a tribe are industrially stable. The other reason with considerable weight in Jinja is that getting employment is not easy because of a large number of unemployed.

EDUCATIONAL COMPOSITION OF WORKERS - 1965

Standard	Number	% of Total
Illiterate	104	29
P 1 - 6	175	49
J 1 - 3	75	21
S 1 - 4	6	1

A large number of employees have either had Primary Schooling (49%) or no education at all (29%). Education is very helpful to employees aspiring to semi-skilled and skilled jobs through trade test, otherwise, the work is largely manual and simply needs physical effort.

Training The Company has no elaborate formalized training programme as was the case with other companies that we have examined; this is because the work is largely manual. It is the practice of the Company to send some of its technicians to India for training and sometimes, technicians from India are brought on secondment to stay with the Company for two years. At the time of the visit to the factory, the Company had two people on such a scheme and two had gone to India the previous year. The personnel officer and others of similar rank have been to Industrial Relations Courses organised by the Labour Department and Uganda Federation of Employers.

In general, employment policies at Sikh Saw Mills are different from the policies of most companies studied: on factory or departmental level the employees are few; there is little formal red-tape and problems are dealt with in fortnightly meetings while supervisors or headmen know employees in their sections well.

C. Capital Equipment, Output, Employment and Wages

The growth of capital in the 1960s has been low but steady. There was an increase of 14% between 1960 and 1964, an annual growth of 3.5%.

The mechanization of some of the jobs apparently

took place in the 1950s. For example, felling trees, hauling logs, sawing and lifting timber, all of which used to be done by men, have now been mechanized. There are mechanical saws powered with engines for felling trees, there are winches to haul logs, there are band-saws to saw big logs and electrical cranes are used to remove timber. The management contends that the use of machines has led to increased production and lower costs, the company gaining a competitive advantage since they can afford to sell at lower prices.

Output The Company's sales have gone up by about 52% since 1959 (by 27% 1964 over 1960) annual growth in the same periods being 8.7% and 6.2%.

The major products are timber and plywood. The timber, especially the Mvule type which is produced at Kitumbezi and Nakivumbi Saw Mills, is mainly for export; the major importing countries are United Kingdom, Germany and Holland. These external markets have helped the Company to maintain or to increase its sales. Internally, the 1960s have been poor years for the Company because of depression in the construction industry. Until recently, orders from construction companies, who had for long been major customers of the company, have declined and government orders are usually few. The plywood output was not affected by the decline because the Company uses this to make tea-chests.

Employment The years 1961 and 1962 are regarded as very bad years by management because of marked decline in economic activity in the construction industry and because of political uncertainty, but this is not supported by employment figures (Table 1). In 1961, employment reached its highest level and in 1962, though lower than 1961, it was still at a reasonably high level. Between 1960 and 1964, however, it declined by 28% (5.8% on an annual basis) at the same time as fixed assets were increasing.

There are some jobs that are still labour-intensive, such as: loading and unloading of timber on and from lorries and railway wagons, stacking timber and lifting fletches of timber where cranes cannot move. The plywood factory uses second hand machinery and it is contended by management that if new machines were installed, labour would be reduced by at least 10%.

Growth trends in output, employment and average productivity 1960 to 1964 show that output increased by 6.2% per annum, employment declined by 5.8% per annum and average productivity increased by 15.9% per annum.

Wages The Company calculates the monthly pay on a basis of shs 4.25 per day for all employees and then adds: 25 cents a day to unskilled wages; 50

cents to semi-skilled and 100 cents a day to skilled wages. In this connection it should be noted that shs 4.25 was, up to the end of November 1965, the minimum wage rate for Jinja.

An analysis of the wage structure (Table 2) shows that in 1962, that is to say before the minimum wage legislation of that year had come into force, 85% of total African employees earned less than shs 100/- a month. In 1963, however, only 25% of the total African workers earned less than shs 100/- a month. At Jinja Saw Mill, the wage bill in 1963 with 24 employees fewer was 39% higher than in 1962. There does not seem to be much doubt that the reduction in employment, which became very substantial in 1964, can be attributed to the Minimum Wage Law.

An analysis of trends in wage bill, employment and average wage between 1959 and 1963 (Table 1) shows that the wage bill has increased at an annual rate of 7.6%, employment has declined by 5% each year and the average wage has increased at 8.3% per annum. Thus wages have been increasing faster than output, but because of the substantial decline in employment, average productivity has kept above the growth rate of wages.

D. Conclusions

Much of the decline in employment at Sikh Saw Mills can be attributed to two major factors: the decline in the construction industry which led to employees of one of the Company's Saw Mills being declared redundant in 1963, and the Minimum Wage Law. Other reasons that can be advanced include the fact that the nature of organization is conducive to close supervision and that labour saving mechanization has been going on.

TABLE 1

SIGNIFICANT DATA 1959 - 1964

YEAR	FIXED ASSETS (£)	VALUE OF SALES (£)	EMPLOYMENT No	WAGE BILL (£)
1959	408,974	229,189	561	34,276
1960	462,399	273,342	558	35,232
1961	474,451	279,033	682	43,261
1962	483,112	313,273	619	42,249
1963	498,622	294,608	546	45,863
1964	531,083	347,296	401	

TABLE 2

WAGE STRUCTURE 1958-1963 (AFRICAN EMPLOYEES)

Shs per month	1958	1959	1960	1961	1962	1963
Below 30				1		
30-39	20	1	48			
40-49	71	103	44	78	70	
50-59	94	162	25	33	42	
60-69	112	141	6	212	71	83
70-79	15	28	105	165	199	28
80-89	7	8	151	61	66	11
90-99	13	19	61	26	56	7
100-124	16	27	25	25	32	316
125-149	10	12	22	10	17	28
150-174	20	14	13	16	17	11
175-199	7	7	14	10	9	13
200-299	11	12	18	13	13	9
300-399					2	4
400-499					1	1

Source: Annual responses to Enumeration of Employees by permission of Sikh Saw Mills.

Case Study No.6 Madhvani Sugar Works (Kakira)

A. Introduction

Sugar production is one of the oldest activities of the Madhvani Group and is now the key industry in the Madhvani Complex. The factory, which started production in 1930, is located 9 miles from Jinja in the middle of a sugar cane plantation of about 19,500 acres. This sugar plantation, the largest producer of sugar in East Africa, is one of the most highly developed in this part of the world. A modern irrigation scheme covers about 6,750 acres (35% of the estate), an area mostly hit from December to March by annual drought. In the rest of the year, rainfall is adequate, the annual average being about 45 inches.

B. Employment

Employees on the estate are employed under the so called "Contract System"; this is in part effected by recruiting migrant labour for which purpose the Company has Recruiting Bureaus at Masaka and Arua. At the Masaka post, workers from Rwanda and Burundi are recruited and brought to the Kakira Sugar estate to work. At the Arua post, the Company officials recruit people from both the Congo and the Sudan. These recruiting centres are so well known among the named groups of employees that the Company does little publicity work these days. In each case, workers are recruited for a period of 12 months. Their fares to and from Masaka and Arua towns are paid by the Company. The contract system has been in operation for such a long time that most employees presently working on the estate are supposed to have been contractors twice or thrice before.

Kakira, being near Jinja is in the unskilled labour surplus area, and since it is estimated that about 95% of the factory jobs are in the unskilled category, management has no difficulties in recruiting workers. Most of them have been picked at factory gates. It is only for the skilled jobs that the Head Office in Jinja is requested to advertise the post in the paper.

Tribes The tribal composition of the labour force is shown below:

District/Country	Plantation			Factory
	1960	1963	1965	1965
Busoga	28	36	57	288
Bugisu	61	58	49	93
Kigezi	45	20	12	15
Teso	80	27	16	213
West Nile	358	246	161	218
Other Ugandans	103	41	35	372
Total Ugandans	675	428	330	1199
Rwanda-Burundi	3260	4261	3655	143
Sudan	1670	1574	1149	429
Congo	1127	1030	1224	148
Kenya	234	146	136	552
Tanganyika	56	14	31	12
Other non-Ugandans	-	1	1	-
Total non-Ugandans	6347	7026	6195	1284
Non-Ugandans %	90.4	94.3	94.9	51.7

The following points stand out on the tribal composition of labour force. Firstly it is clear that the sugar production at Kakira is largely dependent upon workers from Rwanda, Burundi, Congo and Sudan and that the number of Ugandan employees working at the sugar estate is very small indeed (about 5% in 1965). At the factory, however, the number is much larger (48% in 1965). This is also true of Kenyans.

Turnover figures were not made available but it appears the rate of absenteeism is fairly high. Since it is the official policy to repatriate workers on the estate after they have served for twelve months, labour stability to say the least, is not encouraged.

Workers on the estate work on tasks which the management allots each employee each day. Employees who fail to finish the day's task do not get the pay for that day, but are allowed to complete the following day and get their day's pay.

Factory employees work on a shift basis. There are three eight hour shifts each day Monday through Friday. Only two twelve hour shifts are done on Saturdays and Sundays. Employees are paid on overtime rates for the four extra hours worked on Saturdays and Sundays.

Training There are two training institutions at Madhvani Sugar Works: the Madhvani Plantation Training School and the Madhvani Technical Training Centre. The former has been in existence for about six years. Training is mainly for headmen of plantation

gangs. The emphasis is on agricultural knowledge pertaining to sugar cultivation e.g. working of a tractor, irrigation and soils. Employees who qualify for the courses are those who have a general writing knowledge of Swahili and English i.e. those who can make reports. The course lasts for two years and usually 20 - 25 employees are taken at one time.

The Madhvani Technical Training Centre started in September 1965 with the intention of training employees working at the factory. Some formal subjects like English, Arithmetic and Geometry are taught but the emphasis is on technical subjects e.g. motor mechanics, metal work and wood work. For employees to be selected, a minimum education of Primary Six or Secondary One is required. At the time of the visit to the factory, there were fifteen factory employees and five pupils (sons of Madhvani employees) taking the course which is supposed to last for a year.

A third form of training is that provided by the Labour Department and the Federation of Uganda Employers to middle management groups.

Some comment would seem to be called for on employment policy. The contract labour system as it is pursued at sugar estates in Uganda (subject to Government regulation) has certain disadvantages. Labour is officially kept unstable and as a result productivity of labour is kept low. Moreover discipline within the labour movement is weak, consequently there have been infrequent wild-cat strikes at these two factories. One reason advanced by the management as to why they have to recruit labour outside Uganda is that local people have not been coming forward to take up cane cutting jobs. It would seem that a major reason why local people have not been attracted to the work on the estates is because the wages (which exceed the township minimum) are nevertheless low relative to local incomes. It should be noted, however, that in the factory where wages are higher, local employees were as many as 48% (compared to 5% on the estate) in 1965. Objections raised against raising wages on the estate are based on the ability to pay argument but it has to be realized that the present migrant labour is not cheap at all. Recruitment costs are high and to the extent that local labour could be made stable, output could be made to increase because of increased man-day efficiency and infrequent labour stoppages.

In the writer's view task work as it operates at this and other estates in Uganda is rather unsatisfactory but the companies use it because there is little supervision required. The workers, however, resent it because the tasks appear to be arbitrarily decided. However the task-work done at the Kakira

estate is quite low compared with what is required at estates say in Tanzania*.

The Personnel Officer (a European) at Kakira is in charge of personnel matters of all the Madhvani Group of Companies and this means that he has little time to devote to individual company labour problems. At Kakira, nearly all clerical and supervisory posts are managed by Asians. Some of the Asian supervisors (e.g. overseers or gang headmen) who deal with labourers at working level have not been specially trained as supervisors but have been on the estate many years. Asians discuss all matters in their own languages and use Swahili only when they are talking to the African employees. Reports and some of the company records are kept in languages not understood by most employees. In this type of situation, the writer's view is that communication between management and workers is likely to be poor.

C. Capital Equipment, Output, Employment and Wages

Capital Equipment Figures on fixed assets were not made available and therefore it is not possible to make an analysis of capital-job ratios or growth in fixed assets over the period.

With the exception of harvesting, the jobs on the estate are largely carried out by machines. For example, crop planting and manuring is all done by machines, weeding is partly done by machines and partly done by labour. The irrigation scheme on the estate is largely a machine operated affair.

In the factory, operations are to a large extent mechanical but a fair amount of manual work still exists. Management contends that more room for using better equipment exists but that they are handicapped by the lack of highly trained labour which is needed to handle sophisticated operations.

Output For over a decade, Uganda has been producing more sugar than she is able to consume. The surplus has usually been exported to Kenya and Tanzania. Hitherto, there have been two companies, Mehta's at Lugazi and Madhvani's at Kakira, responsible for sugar production. As indicated earlier Madhvani's is the oldest and largest producer of sugar.

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* There, two tons of cane are cut and loaded by a single employee, while at Kakira only 1 or $1\frac{1}{2}$ tons are cut but not loaded.

As Table 1 shows, since 1954 increases in sugar production have been very substantial. Between 1955 and 1960, output increased by 48.2 per cent or at 8.2 per cent annually. Between 1960 and 1964 the increase was rather less, 27 per cent or at an annual rate of increase of 6.2 per cent. Over the decade the increase was of 88.3 per cent.

Adequate water seems to be a key factor in maintaining a high level of sugar output. Since the introduction of irrigation scheme in 1959, it has been possible to keep the growing cane fresh in former dry areas of the estate. The effect of irrigation is shown by the fact that in 1963 it was estimated that estate-grown cane yielded 63 tons an acre on irrigated land and on non-irrigated land, the yield was 45 tons an acre.

Employment Madhvani sugar works is probably the single largest employer in the country, employment in the last decade being approximately at the 9000 level. Indeed it is noticeable (Table 2) that neither at the factory nor the plantation has any significant change in employment taken place. At the plantation, the labour force has moved up and down between 6000 and 8000 levels but there was a decline in employment of about 9.7% between 1955 and 1964. The factory work force has remained fairly constant round the 2000 level. The increase between 1955 and 1964 was only 13.5%. Employment between 1955 and 1964 has declined by about 5% compared to an increase in output of about 88%.

The trends in output, employment and average productivity during the two periods 1955-60 and 1960-64 are summarised below:-

	Tonnage		Sales Value	
	1955-60	1960-64	1955-60	1960-64
Growth in Output	8.2% p a	6.2% p a	9.1% p a	8.5% p a
Growth in Employment	-1.6% p a	.8% p a	-1.6% p a	.8% p a
Growth in Productivity	8.7% p a	4.3% p a	9.6% p a	7.7% p a

Thus increases in productivity in the early 1960s have been rather small while the productivity increases in the late 1950s were moderately rapid. On cane cutting basis, productivity per worker in Uganda is pretty low compared to other countries. For example, productivity in Uganda is estimated at about .9 to 1.5 tons per day per worker compared to about 2 tons a day in Tanzania; 2 to 3 tons in West Indies and 6 to 7 tons in Australia.

Wages The Company was not able to give figures on the wage bill but figures published in the

Companies pamphlet, The Madhvani Group of Companies, Enterprise in East Africa, show that wages for employees on the estate only, increased by 71.3% between 1959 and 1963 and at an annual growth rate of about 14.4%. It has to be remembered that in this period, employment on the estate increased by 10.5 and output (in tons) increased by about 48.6.

The wage structure (Table 3) however shows a large section of the Company's employees in the low-wage bracket. For example, at the plantation, about 95% of the employees are getting less than shs 150/- a month; about 31% actually get less than shs 100/- a month. At the factory, about 80% of the employees were getting less than shs 150/- a month by June 30, 1965 but none was getting less than shs 100/- a month.

The major reason why money wages are low is that the Company provides free housing, free medical services and free education for employees' children. One wonders, however, how the 31% at the estate survive with their families at less than shs 100/- a month. It would seem to suggest that the number of the Company's work force who have their families with them to benefit from the free services is small.

D. Conclusions

Employment at Madhvani sugar works has not increased over the past ten years. On the other hand, there have been considerable increases in output and employment remaining virtually unchanged there has therefore been a considerable increase in productivity. Output per head rose over the period 1955 to 1964 by 7.3%pa.This increase in output is not surprising in view of the contention that one worker can produce 8 tons of sugar per annum*, it would seem that for a long time labour was being used inefficiently. According to the above contention for example, total employment at the sugar works should have been round the 3000 level in 1955 but it was actually on the 9000 level. Rising costs for housing, medical services and wages could be a major factor that has forced management to re-examine their use of labour and to introduce mechanization and the irrigation scheme with the resulting increase in output per head.

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* The Sugar Industry in East Africa, by Charles R. Frank, E.A.I.S.R. Makerere, P 100

TABLE 1

OUTPUT 1953 - 1964

YEAR	Uganda THOUSAND TONS	Madhvani Sugar Works THOUSAND TONS	Madhvani Sugar Works £ THOUSAND
1953	47.9	26.9	1310
1954	40.8	20.3	995
1955	65.1	38.0	2016
1956	69.0	39.9	1948
1957	80.7	51.9	2897
1958	80.8	52.9	3194
1959	81.0	47.8	2616
1960	92.9	56.3	3112
1961	95.4	48.0	3058
1962	104.6	56.7	3303
1963	122.0	71.1	4121
1964	123.6	71.6	4316

Source: Madhvani Sugar Works Files and Statistical Abstract

TABLE 2

EMPLOYMENT (AVERAGE) 1952-1965

YEAR	PLANTATION (Numbers)	FACTORY (Numbers)	TOTAL
1952	6026		
1953	7861		
1954	6282		
1955	7698	2109	9807
1956	7511	2017	9528
1957	6175	2316	8491
1958	6553	2365	8918
1959	6418	2294	8712
1960	6735	2294	9029
1961	6943	1882	8825
1962	7289	2037	9326
1963	7090	2322	9412
1964	6949	2355	9304
1965	6270	2394	8664

Source: Madhvani Sugar Works Files

TABLE 3

WAGE STRUCTURE

RANGES Shs per Month	PLANTATION (FEB. 1966) Africans	Asians	FACTORY (JUNE 30 1965) Africans
Under 100	2006		
100-124	2956		1273
125-149	1210		712
150-174	209		175
175-199	33		58
200-299	85		164
300-399	18		37
400-499	4	4	28
500-999	4	53	32
1000-1499	-	18	2
1500+	1	12	2
	6510	87	2483

Source: Madhvani Sugar Works Files

CHAPTER THREE

Conclusions From Case Studies And Policy Implications

This Chapter attempts briefly to bring together certain significant relationships which are illustrated by the case studies and discusses some of the policy implications.

The six firms were chosen either because they had employment records extending some years back or because their experience was thought to be particularly relevant. There is no reason why these firms should be typical - they do not in any sense represent a sample of all employers and it is therefore not possible to derive any overall quantitative conclusions.

Summary Table A at the end of the chapter presents the significant relationships which were revealed in the case studies. These are presented in annual rates of change in all cases because the length of period differs.

Nytil is certainly not typical nor is Kilembe, because they both expanded their employment at a fairly high rate. Had they been typical, the aggregate picture would have been very different. The remaining firms show behaviour which fits into the general pattern - differing increases in production consistent with an average similar to that of the employment sectors of the economy (excluding agriculture and construction) over the period.

Unfortunately the period for which data is complete for all firms is so short that it is difficult to distinguish changes in the capital-labour mix from variations in capacity. However, the significant data at least for the period 1960-63 is shown in the table and from this it is possible to compare the experience of the six firms since all changes have been reduced to an annual basis. A few generalisations are possible.

In the cases where capital figures are available the table shows that only Kilembe reduced its capital intensity but this probably only reflects a gradual working up to capacity of the major items of capital equipment. Sikh Saw Mills increased capital intensity most, which is not surprising because the operations lend themselves to a choice between relatively unskilled labour and machines. The price of the former having been forced up, employment was reduced at 5.8 per cent per annum in spite of production increasing at 6.2 per cent per annum, giving an increase in labour productivity of 15.9 per cent per annum - much the same as that calculated for the

economy as a whole excluding agriculture and construction. This would seem to be typical experience.

Nytil is an exceptional case in which production was expanding very fast and both employment and capital increasing, yet here too, the capital-labour ratio rose by 5.7 per cent per annum. In all the remaining cases, employment fell during the period in spite of rising production.

In Summary Table B (last page) an attempt has been made at assessing the relative importance of the several factors leading to increased productivity. The various factors to which the observed increase might be attributed have been ordered in importance on the basis of the writer's own assessment in the light of each case study.

Before commenting on some of the policy issues involved, it will be convenient to give a brief summary of the nature of employment problem in Uganda.

Wage employment, which is a small fraction of total population, has in the past decade been dwindling. Between 1948 and 1964 the African population in Uganda has gone up by 49 per cent but wage employment has actually been declining. As shown in Table 1 (below) African wage employment as a percentage of total population has declined from 3.2 per cent in 1948 to 2.9 per cent in 1964.

TABLE 1

AFRICAN WAGE EMPLOYMENT

% OF TOTAL AFRICAN POPULATION

1948	'52	'54	'55	'56	'57	'58	'59	'60	'61	'62	'63	'64
3.2	4.0	4.2	4.0	3.8	3.7	3.6	3.5	3.5	3.3	3.1	2.9	2.9

Source: Statistical Abstract

An attempt at labour force projection using 1959 population census figures, shows that urban working-age population (16-49) will increase from 250,900 in 1965 to 347,800 in 1971. In other words, in the period covered by Uganda's Second Five Year Plan, there will be 96,900 more men and women of age 16-49 in urban areas at the end of the plan period than at the beginning. If one assumes that all urban working-age men will require wage employment and only 20 per cent of the working women, then by 1971, there will be about 65,000 more people needing jobs in urban areas than in 1965. If we allot 45,000 of the 100,000 new jobs forecast in the Plan to urban areas, as the plan does, then the prospect is that Uganda will have 20,000 people added to the permanently urban-unemployed in the Plan period. If these

figures prove to be correct they imply that the present estimate of approximately 6 per cent urban unemployment will go up into the region of approximately 8 per cent by 1971.

The Uganda employment situation resulting from the high natural increase in her population, is compounded by the immigrant element which has characterised its labour force as far back as the 1930s. From the late 1930s to the mid 1950s, Uganda's economy enjoyed a boom. At the start of the period wages were very low so that the incentive for Ugandans to leave their land for wage employment, with limited cash wants at that time, was very weak. There was therefore a labour shortage in the country. Consequently, labourers were recruited from Kenya, Rwanda and Burundi (then Rwanda-Urundi), the Congo and the Sudan. Characteristically, the Kenyans and possibly the Sudanese have generally worked in industry while people from Rwanda and Burundi have been employed by Baganda cotton and coffee farmers and on sugar estates. The Ugandans, especially those in the southern and western parts of the country, who were able to come forward for wage employment, were to all intents and purposes target workers, that is to say they had limited cash wants which they could satisfy within 3 to 6 months and then return to their land.

Superimposed on this increase on the supply side, has been a change in the relationship between urban wages and incomes from cash crop production. The great increase in the former combined with stagnation or declines in the latter have caused an excess supply of urban labour.

TABLE 2

AFRICAN EMPLOYEES FROM OUTSIDE UGANDA 1960-1964

	1960	1961	1962	1963	1964
Congo	5624	4895	5179	4822	5401
Rwanda-Burundi	26746	25434	27589	24904	27638
Kenya	18844	18071	16949	16549	15311
Tanzania	2903	2388	2348	2174	2123
Sudan	6671	7088	6429	6675	6212
All Others	1654	1321	1549	1435	1290
Total	62442	59197	60043	56559	57975
As % of Total Employed	27.3	26.8	27.7	27.1	27.1

Source: Ministry of Housing and Labour

Note: Domestic servants and Rwanda-Burundi porters employed in rural areas are not included in the foregoing table.

Table 2 (p.78) shows that while employment in the 1960s in Uganda has declined, the fraction of non-Ugandan employees (about 27 per cent) has remained relatively stable. This means that very many more Ugandans than non-Ugandans have lost their jobs.

In addition to the non-Ugandans recorded on p.78, there are about 200,000 non-Ugandan Africans in the country. About 100,000 are in employment in rural areas and are largely from Rwanda and Burundi; the rest (about 100,000) are refugees from Rwanda, Burundi, the Sudan and the Congo. After refugees have settled down, they are not prevented from seeking paid employment in the country.

Summarizing then, it cannot be stated in too strong terms that employment creation remains a big challenge to any government or economic planner. The widening gap in income and social amenities between urban and rural areas continues to attract the underemployed reserve in rural areas to seek to improve their lot by looking for new opportunities in the modern sector. Another group attracted to towns are the young primary school leavers whose aspirations for white collar jobs are very high.

It is becoming increasingly accepted among economists that economic development may not create enough employment to keep pace with population increase. The Uganda case can, to a certain extent, be cited as an example. As we have seen, while monetary G.D.P. increased by 61 per cent between 1954 and 1964, employment declined by 13.2 per cent in the same period. Structural changes in the economy can be expected to lead to declines in employment in some sectors so that for the overall level of employment to increase, other sectors must expand considerably; this certainly has not been the case in Uganda during the last decade.

At the risk of stating the obvious it is clear that we are developing at the wrong time. The production techniques in the industries which are being established in developing countries are biased in favour of capital (the scarce factor) and against labour (the abundant factor). This is due partly to the dictates of international technological advancement and partly to the fact that, in countries where capital and capital equipment are obtainable, the equipment is designed on the assumption that labour is the scarce factor. Moreover, since it is becoming fashionable to give "tied aid", this narrows still further the choice open to developing countries as to the techniques they employ and they have, perforce, to accept much machinery that is essent-

ially labour-saving. Moreover, the large investing firms in developing countries are generally branches of big established companies in developed countries with the result that the branches stick more to the latest production techniques in use at "Home" because this is what they are used to, and pay little attention to the requirements of national factor proportions. It is suggested that Nytil and B.A.T. might have found a more labour intensive technique to give the same profit had the necessary research been carried out; and even if this were not possible it is arguable that they should have been induced to accept a sub-optimal technique for social reasons.

Closely related to this question of choice of technique is the question as to what extent the failure of employment to expand can be attributed to rapid increases in wages. While there is no evidence that rapid increases in wages have prevented potential firms from being established, evidence to the effect that already established firms have, in recent years, used labour very sparingly, does exist. Increases in wage rates do, in some cases, motivate firms towards changing the technology they have been using in a more capital intensive direction. Because of the Minimum Wage laws and other "high-wage" pressures, firms have resorted, not only to substitution of capital for labour, but to measures like training workers and supervisors, and more efficient use of capital and labour; measures which have resulted in a reduction of employment because the productivity of the few has been raised.

Investment in skills may be a good thing but rapid mechanization resulting in many people staying idle is another matter. If, however, one accepts the argument that experience over the years would have led the firms to check whether labour was being used efficiently or not, then minimum wage legislation has only accelerated the pace at which people have been pushed out of employment. To the extent that these people would not have been in employment in the first place but for very low wages causing labour to be treated like a free good, the "slack" has now been taken up. This means that the experience of the last decade may have been unique and the prospect brighter than this period suggests.

A 'high wage economy', which appears to be the official policy of the Uganda Government, may enhance the acquisition of more skills and hence lead to continued increases in productivity - but, as has been said before, greater productivity must receive a mixed response in a developing economy if, as would

be the case with a continuation of the present rate of increase, unemployment, not to mention under-employment, is here to stay.

Is there a way out of this situation? The Government, although quite aware of the problem, does not seem to have a new approach on the employment front. As has been indicated before, the policy appears to be "development first and employment next". In the Uganda Second Five Year Plan even the 100,000 planned jobs do not increase wage employment (as a percentage of total population) to the level of early 1950s.

New solutions will have to be sought, particularly as follows:

(1) more selective training programmes for workers. At the moment the lack of middle-level type of skill has prevented firms from using some labour intensive techniques;

(2) investigations to find out what type of cottage industries on a large scale (Japanese type) could be introduced in Uganda. This would instil the spirit of participation at the village level;

(3) labour-intensive programmes to be introduced in these sectors where government has control, direct or indirect;

(4) a re-examination of the wage/salary structure with a view to halting escalation of salaries especially at the top. The wages and salary structure must have relevance to the country's economy.

SUMMARY TABLE A

FIRM	PERIOD	CHANGE LABOUR	CHANGE CAPITAL	CHANGE OUTPUT	CHANGE WAGE BILL	CHANGE CAPITAL/ LABOUR	CHANGE OUTPUT/ LABOUR	CHANGE OUTPUT/ CAPITAL	CHANGE WAGE BILL EMPLOYMENT = AVERAGE WAGE
(1) NYTIL	1960-1963	12.7% p a	19.1% p a	R.26.5% p a M.25.1% p a	29.5% p a	5.7% p a	R.12.2% p a M.11.1% p a	6.2% p a 5.0% p a	14.9% p a
(2) UGANDA BREWERIES	1960/1-1963/4	-1.7% p a	1.9% p a	R. 4.8% p a M.10.2% p a	7.0% p a	-3.7% p a	R. 6.6% p a M.12.1% p a	2.8% p a 8.1% p a	8.7% p a
(3) B.A.T. UGANDA	1951-1955	-6.5% p a	Not Available	R. 5.9% p a		Not Available	R.13.3% p a	Not Available	
	1960-1964	-6.2% p a		R.-2.9% p a	3.3% p a		R. 3.4% p a		10.2% p a
(4) KILEMBE MINES	1957-1960	11.2% p a	5.3% p a	R.24.8% p a M.28.8%	28.2% p a	-5.6% p a	R.12.3% p a M.15.9% p a	18.5% p a 22.3% p a	15.3% p a
	1960-1964	5.1% p a	3.6% p a	R. 5.5% p a M.16.5% p a	6.5% p a	-1.4% p a	R. 0.4% p a M.11.0% p a	1.8% p a 12.5% p a	1.8% p a
(5) SIKH SAW MILLS	1959-1963				7.6% p a				8.3% p a
	1960-1964	-5.8% p a	3.5% p a	6.2% p a		9.9% p a	15.9% p a	2.6% p a	
(6) SUGAR WORKS KAKIRA	1955-1960	-1.6% p a	Not Available	R. 8.2% p a M. 9.1% p a		Not Available	R. 8.7% p a M. 9.6% p a	Not Available	
	1959-63 1960-1964	0.8% p a		R. 6.2% p a M. 8.5% p a	14.4% p a		R. 4.3% p a M. 7.7% p a		11.6% p a

SUMMARY TABLE B

SUMMARY OF FACTORS AFFECTING PRODUCTIVITY

ORDERED ACCORDING TO IMPORTANCE ≠

Case Study Number	Firm	CAPITAL		LABOUR						Annual Increase In Labour Productivity
		Increased Intensity	Increased (i) Efficiency	Efficient Organisation	Better Selection	Greater Stability	Training	Education	Better Nutrition	
1	Nytil	1	3	6	5	7	2	8	4	1960-63 25%+
2	Uganda Breweries	1	3	2	4	5	6	8	7	1960-64 M.12.1% R. 6.6%
3	B.A.T. Uganda	1	2	6	5	4	3	8	7	1960-64 R. 3.4%
4	Kilembe Mines	3	2	5	4	6	1	8	7	1960-64 M.11% R. 0.4%
5	Sikh Saw Mills	1	3	2	5	4	6	7	8	1960-64 15.9%
6	Sugar Works - Kakira	1	2	3	5	6	4	7	8	1960-64 M. 7.7% R. 4.3%

Notes: (i) Including greater use of capacity

≠ This is an assessment by the writer

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Between 1954 and 1964 total recorded employment in Uganda fell by 13.2 per cent. This startling fact, in a developing economy in which rapid population growth is causing increasing pressure for employment in the modern sector of the economy, cried out for investigation.

This study examines the overall statistical picture of employment in the economic context of the period and then presents the facts derived from six case studies. On the basis of this combination of macro- and micro-study, conclusions are drawn and some of the implications discussed for what must be one of the most critical areas of economic development policy.

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