

INVESTMENT IN SECONDARY EDUCATION IN KWARA STATE: SIZE, SOURCES AND EFFICIENCY

By

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Abstract

The paper reports the study designed to find out the relationship between resource allocation and internal efficiency of secondary education in Kwara State of Nigeria. The sample of this study was made up of 90 secondary schools drawn from local government areas in the state. Data for the study were collected with the aid of two questionnaires. The records of the State Ministry of Education and Finance were also duly consulted. Both unit cost and apparent cohort analysis were carried out.

The result showed, among other things, that the state had been spending between 20kobo and 25kobo of one naira spent on secondary education between 1983 and 1987 on student wastage. Based on the findings of the study, some recommendations were put forth for improvement of the secondary school system and for further studies.

Introduction

In many countries of the world, the pace of educational development had moved faster than that of economic development. Thus, education budgets appear to be under great pressure. Nigeria, like many other developing countries, is not spared from the economic crisis. There had been a sudden significant drop in our oil revenue and a consequent reduction in the amount of resources available for distribution among the various sectors of the nation's economy. Despite the scarcity of resources, there is the great need to expand and reform the educational system and ensure its quality in meeting the popular demand.

In the last two decades, the country had experienced an unprecedented educational expansion. Primary education enrolment had grown four times the original size, secondary education eleven times while enrolment in our universities has risen thirty times the original size between 1975 and 1980 (Adesina, 1983).

This phenomenal increase in enrolment had compelled the various states to devote a substantial part of their annual budget to the provision of education, especially at the secondary level.

The Problem

The existing state of affairs in Nigeria is that State Governments are mainly dependent on the Federal Government as the major source of their revenues. The manner of disbursement of the fund from the Federal to the State Governments had created the problem of uncertainty in the amount of allocation to be received by the States. Such situation had given rise to the problem of how best to allocate the scarce resources efficiently both among competing sectors of the economy and within each sector. There were instances when States have been unable to meet up adequately with the financial requirements of their educational set up and some schools had to be merged or closed down. Other schools had to depend greatly on contributions from rich individuals and organisations like Parents - Teachers-Association (PTA) to supplement their finances. Yet, there were occasions when the sum tot of both PTA contribution and Government financial assistance fell short of the financial requirement of the schools such occasions pose great problems to the school administrators since they caused late payment of teachers' salaries and allowances, poor capital development leading to the abandonment of school project and shortage of basic facilities. All these were in spite of declarations by government that substantial amounts of their budgets were being spent on education, and in spite of prohibitive costs of formal education to Nigerian parents.

The basic question is not only whether resources of the right quantity and quality are being invested on education, but also whether we are actually making judicious use of the resources available to our schools. This paper attempts to investigate the pattern of investment in secondary education in Kwara State with emphasis on the size, the sources and the extent of internal efficiency.

Conceptual framework

For the sake of clarity, secondary education as used in the study refers to that aspect of education, children receive after primary schooling, but before the tertiary stage, leading to the General Certificate of Education (Ordinary Level), the School Certificate or, most recently, the Senior Secondary Certificate Examinations. The term 'investment' here refers to the allocation of money for

running the educational system. The concept of 'efficiency' as used in this paper refers to the ability of the educational system to minimise cost and reduce wastage. 'Wastage' is used to describe the loss resulting from the failure of some or many) students in their terminal examinations or from the inability, or unwillingness, of some to complete their courses, or from frequent repetition of classes by others. Coombs and Hallack (1972) see these as measures of internal efficiency of resource management.

Several attempts have been made in the past to study the investment in education and to measure the efficiency of education by both local and foreign scholars. It seems the first known study on investment in education conducted in Nigeria was carried out by Callaway and Musone (1968). They investigated the trends of resource allocation to education in relation to the national income and Government budgets in the Regions. They found that in 1962 the unit cost per pupil in secondary schools varied from £74 in grant -aided schools to £173 in Government schools. It was also discovered that there were considerable variations in the structure of expenditure on education across the Regions.

Longe (1980) investigated investment on secondary education in Oyo State. She focused on factors influencing recurrent cost of secondary education. She used some synthetic indicators to evolve a model for calculating the cost of education; but she did not focus on internal efficiency as in the case of the present study.

Also, Durosaro (1985) studied investment in secondary education in Bendel State. He used the unit cost analysis to examine the growth trend of resource allocation to the system. He found, among other things, that the pattern of allocation of fund to education was such that salaries and allowances of staff took 68.95%, administrative cost 12.75%, expenditure on school materials and equipment 1.43% and others 15.85%. The present study adopts a similar methodology.

Similarly, some studies have been conducted on the measurement of efficiency in education. The analysis of the output of education could give some indication of how efficiently the system functions. Wastage as a result of students dropping out or repeating classes, found mostly at the primary and secondary levels, are obvious instances of inefficiency in the system (Okedara, 1981). UNESCO (1970) also related educational wastage to the incidence of students

dropping out or repeating classes.

The UNESCO publication gave the three methods of measuring wastage as (a) apparent cohort method,' (b) reconstructed cohort method, and (c) true cohort method.

The apparent cohort method uses either cross-sectional data, that is, enrolment in all classes in a particular year or a time series data, which are enrolment in successive classes. The reconstructed cohort method uses the successive year-class-enrolment and repeater model for a given full cycle of cohorts. The dropouts repeaters and promotion rates are calculated. The true cohort method used longitudinal study of a group of pupils from first year to final year. The method is most useful and scientific but too expensive and time consuming.

All the studies reviewed above seem to reach a consensus on, both the use of wastage as an index of efficiency in education and the methodology for measuring the wastage.

Methodology

The 328 secondary schools in the state in 1987 constituted the study population. A sample of 90 schools was drawn; based on the stratified random sampling method. The Local Government Am' (L.G.A.) formed the strata and the number of schools chosen from each LGA was based on the number of schools in the area. The selection of the specific schools in a Local Government Area was based on age, starting from the oldest.

Two questionnaires were used to gather the relevant data for the study. These were Secondary Education Resource Allocation Questionnaire (SERAQ) and Secondary Education Efficiency Analysis Questionnaire (SEEAQ). In addition to these, the records of the Ministry of Education and the State Schools Management Board were duly consulted. The SERAQ was administered on the Director, Planning and Statistics Division. It gathered information on financial allocation to secondary schools, as well as human and physical facilities utilization over the period of 1983 to 1987. The SEEAQ was administered on the principals of the sampled schools. . It sought information on enrolment of student, progression of students, repetition and dropout patterns over the period. The questionnaires were validated by relating the items on them to the constructs or specific variables of the study and through face validation. They were pilot-tested in schools. A test-re-test reliability co-efficient of

0.96 was obtained for SERAQ, and 0.78 for SEEAQ. The data collected were analysed descriptively and both unit cost and cohort analyses were carried out.

Research Questions

The following research questions were raised to guide the investigator in his collection and analysis of data.

- (i) What were the shares of education sector from the total state budgets from 1983 to 1987?
- (ii) What were the sources of public fund used for education in Kwara State from 1983 - 1987?
- (iii) What were the growth rates of the shares of secondary education in Kwara State Expenditure from 1983-1987?
- (iv) What were the growth patterns of allocation of other non-financial resources to secondary education in the state from 1983 - 1987?
- (v) What were the patterns of financial allocation within secondary education in the State from 1983-1987?
- (vi) What were the wastage rates and cost of student wastage in secondary education in Kwara State from 1983 -1987?

Results

The relevant data used in answering research question (1)

He presented in Table 1 below.

Table 1
Allocation to Education in Kwara State Budget, 1983-87

Years	State Budget	Allocation to Education %	Share of Education
1983	154,180,000	99,190,000	39.0
1984	255,270,000	79,720,000	31.2
1985	268,391,000	75,460,000	28.1
1986	304,003,585	63,440,000	20.9
1987	290,333,900	63,700,000	21.9

Source: Treasury Division Kwara State, Ilorin.

The table shows that the financial allocation to education declined gradually from N99,190,000 in 1983 to N79,720,000, N64,600,000, N63,440,000 and N63,700,000 in 1984, 1985, 1986 and 1987 respectively. However, when these financial allocations are considered as percentages of the total State budgets over the years under study, it was discovered that despite the slight fall from 39.0% to 31.2% between 1983 and 1984, thereafter, there was a steady decrease from 31.2% in 1984 to 21.9% in 1987. When compared with the expenditure figures for other nations on education, these figures show that Kwara State of Nigeria had been expending a good part of her meagre resources on the education of her children. A look at Table 2 below shows that the highest percentage of budget spent on education in other parts of the world were: Algeria 25.8%, Indonesia 12.2%, Kenya 16.0%, Mexico 1.7%, U.K. 14.3% and Venezuela 15.9%;

Table 2
Education Expenditure as Percentage of Total Budgets of World Nations

Nation	Years	Percentage of Budget allocated to Education
Algeria	1977	25.8
	1978	17.3
	1979	12.3
Indonesia	1975	12.2
	1976	8.9
	1978	8.7
Kenya	1977	16.0
	1978	15.1
Mexico	1977	11.7
	1978	10.9
Nigeria (Kwara State)	1983	39.0
	1984	31.0
	1985	28.0
	1986	21.0
	1987	22.0
U. K	1976	14.3
Venezuela	1976	15.9
	1976	8.2

Table 3
Sources of Finance used for Education in Kwara State 1983-87

sources	1983	1984	1985	1986	1987
fees		13,485,400	19,892,400	19,187,200	17,600,000
Sales and Earning by Schools	1,000	-	-	-	-
Vocational courses Fees	4,000	15,000	20,000	20,000	10,000
UPE Entrance? Gd.II paper fees	6,000	-	4,800	1,000	5,000
Teacher registration	10,000	10,000	28,920	-	-
Evening Class fees	5,000	6,000	6,000	7,000	7,000
Tender fees	60,000	60,000	60,000	10,000	15,000
Total from within Education sector	86,000	13,576,690	20,012,120	19,225,200	17,637,000
From Federation	143,000,000	115,230,000	116,476,000	136,439,210	168,247,700
Account From other Sectors in Kwara	22,120,000	28,959,910	21,449,000	26,210,310	39,149,200
Total Resources of Kwara	165,980,000	15,776,600	169,771,000	199,959,750	226,033,900

Sources: The Bureau of Budget, Ministry of Finance, Kwara State.

During the 1983 fiscal year, the total financial resources of Kwara State was N165,980,000. Out of this amount, only N86,000 was internally generated from education sector, but the education sector consumed N99,190,00 or 3.9% of the budget. In 1984, the education sector consumed N99,190,000 while only N13,516,690 was generated internally from education which consumed N79,720,000 of the resources for the same year. Also in 1987, the state's financial resources was put at N226,033,000 but consumed the sum of N63,000,000. The major sources of fund used on education were from school fees, vocational improvement course fees, teacher registration fees, evening class fees, Grade II State papers fees, sales and earnings by schools and electricity charges. However, since the focus of this study is on secondary education, it is necessary to find out the trend of allocation to secondary, education and the results are as presented in Table 4.

Table 4

Growth Rate of Share of Secondary Education on Kwara state Expenditure 1983-87

Years	State Expenditure	Allocation to Secondary Education	% Share of Secondary Education
1983	254,180,000	27,758,988	10.9
1984	255,270,000	38,351,581	15.0
1985	268,391,000	38,371,680	14.2
1986	304,003,585	38,276,902	12.6
1987	290,333,900	42,715,212	14.7

Source: Ministry of Education, Ilorin.

This table shows that the share of secondary education in the State' s recurrent expenditure fluctuated from year to year. In 1983, for example, 10.9% of the expenditure went to secondary education. The proportion rose to 15.0% in 1984 but it

fell to 14.2% in 1985. It declined further to 12.6% of the expenditure in 1986 and rose up to 14.7% of the state expenditure in 1987.

This proportion when compared with the total vote expended on the education sector shows clearly that the Kwara State Government had been investing more on secondary education than on other levels of her educational system. It was found necessary and useful to find out the trend in the growth of allocation of other non-financial resources to secondary education in some other components of the secondary school system in Kwara State during the period, covered by this study. Table 5 below shows the growth, pattern in a number of school pupil enrolment resource devoted to secondary education in Kwara State from 1983-87 and staff strength in Kwara State secondary schools, 1983-1987.

Table 5
Growth index of Number, of Schools, Teachers, and Enrolment in Kwara State Secondary Schools 1983-1987

Years	Number of Secondary Schools	Growth Rate %	Enrolment	Growth Rate	Teachers	Growth Rate %
1983	339	100.0	123077	100.0	3788	100.0
1984	322	94.9	133937	108.8	3805	100.5
1985	322	94.9	130801	106.3	6003	158.5
1986	327	96.5	128687	104.6	5308	140.1
1987	328	96.7	125841	102.2	5612	148.2

Source: Ministry of Education, Ilorin.

The resources being considered are number of schools, enrolment of pupils and number of teachers in the State.

The growth rate in number of schools shows a decline of 5.1% between 1983 and 1985. Thereafter there was a rise in growth of only 1.6% in 1986 and an additional 0.1% increase in 1987. The enrolment of students rose by 8.8% in 1984, but declined gradually over the years. The teachers employed at the secondary level in the State increased by 0.5% in 1984. The number grew by 58.5% in 1985. But between 1985 and 1986 there was a fall in growth of 18.4%.

In 1987, there was a growth of 8.1% over the number for 1986. The growth

rate of these other resources become very important to this study because of their implication for fund and for the unit cost. The patterns of resource allocation within the secondary education sector in Kwara State, 1983-1987, are presented on Table 6.

The table shows that there were five major sub-heads of expenditure on secondary education on which the allocation of resources were made. The sub-heads included teachers salaries and allowances, non-teachers salaries and allowances, School Management Board expenses, Administrative cost and Ministry of Education expenses on secondary education. The expenditure on teachers took between 42 and 52 percent of the total resource allocation to secondary education between 1983 and 1987. This was the highest proportion of the allocation. Expenditure of Ministry of Education on secondary education ranked second and it consumed between 21.7 and 52.3 percent of total allocation. Non-teacher cost ranked third, consuming between 12% and 16% of the total financial allocations during the period under study. The expenditure on administrative cost of the schools took between 1.3 and 7.1% and expenditure of the School Management Board took between 1.6 and 2.0% of the total allocation to secondary education in the State over the period. The expenditure of Ministry of Education here included some teacher and non-teacher costs on account of such personnel being under direct control and care of the Ministry.

The last research question concerns the wastage rates and cost of student wastage in secondary education in Kwara State between 1983 and 1987? In answering this question, the apparent cohort analysis approach was adopted. The total enrolment in the schools sampled -were obtained per session. The numbers of repeaters, dropouts and fail outs were also obtained. Fail out here refers to those who graduated from the system without passing at least four subjects at credit level. The enrolment for the various years were related to total expenditure on secondary education in order to compute the unit cost per pupil per year.

Table 7

Wastage Rate and Cost of Student Wastage in Secondary Education in Kwara State 1983-87

Years	Enrolment	Unit Cost	Repeaters	%	Dropout	%	Fail outs	%	Gross Wastage	Cost of Wastage(#)
1983	28578	225.54	1932	6.7	1136	6.7	3223	11.3	22.01	1418872.1
1984	28800	286.34	2336	9.4	1124	9.4	3414	11.8	25.12	2078828.4
1985	31314	293.36	2336	7.5	994	7.5	3195	10.2	20.94	1914174.0
1986	32940	297.44	2052	6.7	1196	6.7	3648	11.1	20.94	2051146.2
1987	33822	339.44	2632	7.8	988	7.8	4171	12.3	23.04	2644577.0

As shown in the table, the enrolment in the secondary schools 1983 was 28,578. Of this number, 1,932 or 6.8 repeated. 1,136 students or 3.9 dropped out while 3,223 students or 11.3 failed out. The total wastage rate was found to be 22.0 for that year. The unit cost per student for the year was N225.54. With the multiplication of this unit cost by the total wastage rate, the total cost of student wastage for 1983 was found to be N1,418,872.1 in the 90 schools sampled for this study. In 1984, 28,900 students were enrolled in all the sampled schools, 2,722 or 9.4% repeated, 1,244 or 3.9% dropped out and 3,414 students or 11.8 failed out. The total wastage rate was 25.1%. The unit cost was N286.34 while the cost of student wastage for that year was found to be N2,078,828.4.

In 1985, 21,314 students were enrolled in the schools sampled 2,336 or 7.5 repeated, 994 students or 3.2% dropped out while 3,195 students or 10.2% failed out. The total wastage rate was 20.8%. The cost of student wastage for that year was N1,914,174.0. By 1986, 32,940 students were enrolled in the chosen schools, 2,052 students or 6.2% repeated, 1,196 or 3.6% dropped out 3,640 or 11.1% failed out while the total wastage rate was 20.9%. The cost of student wastage was N2,051,146.2. Also in 1987, 33,824 students were enrolled in the schools, 2,632 students or 7.8% repeated, 988 or 2.9% dropped out, 4,171 students or 12.3% failed out. The total wastage rate was 23.0% and the cost of student wastage was found to be N2,644,577.0.

On the whole, the total wastage rate in the sampled schools varied between 20.8% and 25.1% over the period studied. The wastage arising from failure of students accounted for the largest proportion of the total wastage followed by the wastage due to repetition while dropouts accounted for the smallest proportion of the wastage. From the result of this study. It seems apparent that over the period covered by this study, Kwara State had been spending between 20K and 25K of every naira spent on secondary education to finance wastage owing to repetitions, drop outs and fail outs of students.

Conclusion and Recommendations:

Based on the finding of this study, one may conclude that education had consumed a substantial proportion of the state's budget over the period studied. Secondary education took a large proportion of this. The wastage rate in the system

ranged between 20.8% and 25.1% over the period studied. Although this wastage, if compared with the recommended cumulative wastage rate for African countries which was put at 41% (Adesina, 1983) cannot be too disturbing. But the fact still remains that the secondary education system did not perform satisfactorily, during the period covered by this study. On the basis of these findings, the following suggestions are made for the improvement of the state's secondary education system.

1. Schools should be encouraged to provide more remedial teaching for the weak students and slow learners after the normal school hours. Parents may be asked to pay some token amount for this programme.
2. The school curriculum should be reviewed to allow more time for students to do independent studies in school each day under the supervision of some teachers.
3. There is also the need to improve on the general supervision and inspection of the schools to ensure quality of instruction in the subjects in order to reduce incidence of repetition, drop-out and failure.
4. Finally, further investigations should be carried out on the modalities for financing the secondary education system at state and national levels so as to assist educational planners and school authorities in managing their resources in order to avoid wastage.

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