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RESEARCH ARTICLE

Determinants of Educational Projects Completion Time in Secondary Schools in Kenya

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Abstract

The purpose of the study was to investigate the determinants of the project's completion time in public secondary schools in Kenya. In particular the study sought to investigate school based determinants of project completion time and investigate Non-school based determinants of project completion time. The study adapted a descriptive survey design and was guided by the systems theory. The researcher used stratified random sampling procedures to select the 15 public secondary schools and 90 teachers in Eldoret East District in Kenya. The target population consisted of 38 public secondary schools in the district, including 31, 6 and 1 district, provincial and national schools respectively. Questionnaires were administered to the teachers in the 15 selected schools. The data collected was analysed using descriptive statistical techniques. The study established that training of principals on project and financial management, the level of education of B.O.G members, school category, and the length of stay of principals, high enrolment and sponsors support were the major school-based determinants of project completion time. The non-school based determinants of project completion time were inadequacy of funds, payment delays, poor collection of levies, cost of the project, multiplicity of the project, setting up of right priorities, using locally available materials, improving project supervision , increasing the development fund, and the government. The findings of the study are useful to the stakeholders in secondary public schools to enhance efficiency, accountability and performance in the management of school projects. Further, the findings forms a basis for policy makers to introduce deliberate guidelines and policies on project management especially this time when opportunities need to be expanded for greater access in secondary education.

Introduction

In September 2000, world leaders, Kenya included, came together at the United Nations, New York, for a historic Millennium summit. They signed the millennium Declaration in which they pledged to free their fellow human beings from poverty, hunger, gender inequality, environmental degradation, and HIV/AIDS, while improving access to education, health care and clean water for all by 2015.

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In many ways, education contributes towards the realization of all the Millennium development Goals (MDGs). For example, it is generally acknowledged that schooling offers one an opportunity to break from the vicious cycle of poverty.

Secondary school education occupies an important part in the development strategies of the world. The returns for both individuals and society make investment in secondary school education a worthwhile and profitable venture. According to the Sessional Paper Number 10 of 1965, education is a means of producing manpower for economic growth

and development. The same paper saw education as a means of narrowing disparities (GOK, 1966).
Support for improved participation in secondary education directly contributes to economic growth through enhanced social externalities of increasing numbers serving as a productive labour force. Further, there is global and country specific evidence about the positive impact of education on poverty reduction and inequality (World Bank, 2008).
Secondary education is also shown to contribute to economic growth for the current and next generation as measured by the well-documented link between educational attainment and personal earnings (World Bank, 2008).

There is now convincing evidence that young people in Africa, who complete basic education (primary and secondary) are at reduced risk of HIV/AIDS as a result of the educational input (World Bank, 2006). It is also associated with improved health, equity and social conditions, and buttresses democratic institutions and enhances civic engagement (World Bank, 2005). This is a direct indication that expansion of educational places for the people of Africa will have a very positive effect on their lives.
Education is accorded high priority in the Government of Kenya (GOK)'s national development strategy which is set out in the Vision 2030 and the Medium Term plan for 2008-2012. The vision for development is a globally competitive and prosperous Kenya, with competitive and adaptive human resource base to meet the requirements of a rapidly industrializing economy. The financing and provision of education is a major element of the GOK development and poverty reduction strategy, and is fundamental to the success of the Government's overall development strategy.
Following the implementation of Free Primary Education (FPE) in January 2003, there have been increased enrolments in primary schools with consequent pressure to increase the absorption capacities of the secondary education sub-sector. This pressure has further been accentuated by the low transition rates from primary to secondary whose places have not expanded proportionately despite FPE. For this reason, the GOK through the Ministry of Education (MOE) set up a task force in 2007 to advice on how secondary education can be made more affordable. In effect, the terms of reference revolved around issues of financing secondary education and the challenges of the implementation of the proposed tuition waivers (Malenya, 2008).
In January 2008, despite the challenges brought about by the Post 2007- election violence, the GOK of Kenya officially launched the free secondary tuition policy and is now in its first phase of implementation (Malenya, 2008). The implementation of Free Secondary Education (FSE) was a landmark that put Kenya among the ranks of few African countries that have rolled out a twelve-year universal education in line with international protocols signed in 1990 at Jomtien, Thailand and in 2000 in Dakar, Senegal.
The findings by the state owned Kenya Institute of Public Policy Research and Analysis (KIPPRA) envisage a number of projections that will directly result from the full implementation of the free secondary schooling. Among those projections which are in another form challenges expected to face this sub-sector include those related to admission, quality, teachers, facilities, funding and transition. On facilities the KIPPRA report estimates that:

- The country will need 8600 additional classrooms.
- In addition, other infrastructure will have to be developed such as new day schools, expansion of already existing infrastructure such as increase in the number of streams.
- The estimated cost of these additional infrastructural needs is expected to rise beyond Kshs 4 million in the second year of implementation.

While lauding the benefits that will come with FSE, the KIPPRA study indicated that the undertaking will be a big task for the country in initiating and sustaining the programme while at the same time ensuring quality and not hindering the other sectors of the economy (KIPPRA, 2008).The scarcity of resources available for the GOK when drawing her budget alongside the diminished donor support leads to a cut throat competition between the various economic sectors.
According to the same KIPPRA (2008) report, in the initial year of FSE, there will be demand for more school places with new form one admissions expected to be more than double the current real transition of 40% to about 80%. This scenario translates to an unprecedented requirement for facilities to accommodate the increased numbers of learners. The task of availing these facilities requires a combination of factors. Major projects in every corner of the country need to be put in place to ensure that the required facilities are available at the right time.
The government hopes that for the successful implementation of the Kenyan education Sector Support Programmes (KESSP) the role of parents and communities in resource mobilization, decision-making and resource utilization is crucial. This will require that the roles and responsibilities are aligned and specified. Parents are expected to contribute

towards the education of their children, government participation through tuition fee intervention notwithstanding (M.O.E, 2006).

The Institute of Policy Analysis and Research (IPAR), in submission to the Ministry of education's taskforce on affordable Secondary Education in Kenya observes that most public schools lack physical facilities and concerted efforts must be taken to build them if the new policy is to be effective (Kibira , Akoter, Riechi, Barasa , Oyugi, Omolo, Muthama & Mukasa, 2007). Going through the public secondary schools, one quickly notices most of them have embarked on ambitious projects to expand their physical infrastructure to catch up with the ever- increasing demand for places and provision of quality, modern, and relevant education for the 21st century. Unfortunately some of those projects are stalled before completion or have progressed for a long time without completion. Some of the stalled projects are an embarrassment on the landscape of the public schools in Kenya, and at best may be condemned.

Further delays in completing the projects compound problems and postpone the achievement of education objectives. Each completion at current costs would require much more than previously intended. There is a need to complete these projects with the pressure mounting due to the introduction of free 12 –year tuition for the country. Some building projects are very critical for the effective delivery of educational goals and for the purpose of increasing access in the secondary level of education, which is critical for the country's development.

The managers of education have in the recent past tried to expand and diversify sources of funds to put up facilities in secondary schools. Such sources of funds include the disbursements from the Constituency Development Fund (CDF) to schools in the form of project support, the devolved funds to the local authorities, harambees and the parents' contribution in the form of development levies. Further, other supportive groups such as the old students' organizations and the sponsors have been closely encouraged to participate in the expansion of the educational facilities.

Consensus over the players in the building construction projects in Kenya's secondary schools has been raised from various angles. In a special report in the Sunday Nation, projects funded by the constituency fund in Nyanza are reported to have stalled although some are certified complete. Schools that are listed as having benefited from the funds also complain that work was done halfway. In some cases, not all the funds allocated for a given project was received in full, and it is not clear where the rest of the money went. Worse still, the completed projects in some instances showed a shoddy construction job resulting in immediate repairs (Mayoyo, 2008).

It is noteworthy that the education reforms by the government of Kenya are carried out under adverse macro-economic conditions and Inter-sector competition for resources from other relatively important claimants such as health, social infrastructure, housing and sanitation amongst others (Todaro, 1992). With the fast reforms, Kenya faces serious development challenges, notably in the secondary school level sub-sector in relation to access, equity, management and efficiency. In the process of expanding access, there is a dire need to complete as many buildings as possible in the established secondary schools, especially classrooms, laboratories and workshops which are essential for the provision of curricula needs of the Kenya education system especially at secondary level. The quick completion of such urgently needed buildings is a matter of concern (World Bank: 2007).

In an article entitled "Improving access to secondary schools in Kenya", a simulation model illustrates how the demand for secondary education was to grow. In the model; secondary school- age population is expected to rise from 3.0 million in 2003 (base year) to 3.6 million in 2015. In 2003, only 17 percent of the youth eligible for secondary schooling were in school (Ngware, Onsomu, Muthaka , Manda, 2006).

The model further projected that demand for secondary education in terms of enrolment in absolute numbers was to increase from 845, 428 in 2003 to 1.8 million in 2008 and close to 2.7 million in 2015, other factors being constant. This translates to an annual growth rate of 10% and accumulative growth rate of 200% over 12 years. This requires additional resources in terms of classrooms, and personnel among others (Ngware et. al, 2006).

Considering the envisioned growth in secondary enrollment and assuming a class size of 45 students, the number of classrooms required is projected to increase from 22,914 classrooms in 2003 to 33026 in 2008, 41,649 in 2010, and 56,313 in 2015 (Ngware et. al, 2006). These projections show an expected increase in the number of building projects to take place in various places in the country. It may be in the form of new schools starting, or the expansion of the existing schools.

The foregoing is an indicator that there is an enormous demand for building projects in almost all corners of the country and thus understanding the determinants of projects completion time is very necessary. Uasin Gishu District Development Plan 2002-2008 recognize the importance of providing of physical infrastructure through rehabilitation,

improved and effective management of the existing infrastructure facilities. In the medium term, they propose to focus on measures aimed at improving both quality and quantity of facilities that are likely to generate economic impacts on the economy (GoK, 2004). The plan states that buildings and housing among other infrastructural projects must be improved to revive the economy and help reduce poverty in the district.

In Eldoret East district reports show that within the duration of two years more than four new secondary schools were inaugurated in different parts of the district. It is further reported through document evidence that the existing schools increased the number of streams to cater for the ever increasing number of primary school level finalists in the same period (GoK, 2008).

Justification of the Study

Efficiency is minimization of project costs, availing of project materials and timely reporting of project progress to stakeholders. Also the efficiency is auditing the project funds to avoid the present scenario where audits are carried almost 2 years after the closure of the financial year. Overall the degree to which inputs are converted into outputs should improve in project implementation. Further, the findings forms a basis for policy makers to introduce deliberate guidelines and policies on project management especially this time when opportunities need be expanded for greater access in secondary education.

With the expected leap to achieving the MDGs and the vision 2030, the findings of the study helps in identifying the key variables to control in order to achieve greater expansion in the secondary sub-sector of education. It is hoped that the findings of study forms a basis for further research on the determinants of project completion time in schools. This should lead to the generation of more ideas on efficient management and expansion of school facilities in public secondary schools and other educational institutions in developing countries.

Objectives of the Study

The study was more specifically seeking to:

(i) Investigate school based determinants of project completion time;

(ii) Investigate Non-school based determinants of project completion time;

Research Design and Methodology

This study adopted a survey design and was conducted in Eldoret East District in Uasin Gishu County of Kenya. Survey designs are used when the objective is systematic or description of facts and characteristics of a given population or sample of the population or area of interest factually and accurately (Kothari, 2007). It gathers data at a particular point in time with the intention of describing the nature of the existing conditions, identifying the standards against which existing conditions can be compared and determining the relationship that exists between specific events (Orodho, 2005:42, Cited in Kombo and Tromp, 2006).

Survey research design was used because the population studied was too large to observe directly and was to enable the researcher to use questionnaires as a method of data collection. The survey research is therefore useful because of the economy of taking a sample of the population to generalize results for the whole population. The research design also enabled the researcher to explore the existing status of projects at various completion levels in public secondary schools. Furthermore, document analysis enabled the researcher to establish the project status within the district as per the records in the DEBs office and the constituency offices.

Measures

This study aimed at identifying the factors, both school based, and non-school based that influence project completion time in secondary schools. The researcher stratified the schools into district and provincial schools as per division. There was one division without a single provincial school. Since the number of provincial schools was small, the researcher selected purposively selected three provincial schools for this study. Two provincial schools were randomly selected from Ainabkoi Division and one from Kaptagat Division. This selection ensured some proportionate equity for the two divisions was achieved. The remaining twelve schools were selected using stratified random sampling from district schools in proportion to their distribution among the divisions. This technique was to assist the researcher to ensure that different categories of schools are proportionately represented. All the principals of the fifteen selected schools were purposively selected to participate in this study. Simple random sampling technique was used to select 90 teachers from the selected schools. Only teachers who had stayed in the school for at least four years were included in this study. The choice of teachers was necessary to cover information that is equivalent to the 4-year secondary school cycle in the Kenyan education system.

The researcher used two questionnaires to obtain information from the sample. The questionnaires were administered to teachers and school principals

who were requested to fill them. The data obtained was analyzed and interpreted.

Findings and Discussion

Responses on School Based Determinants of Project Completion Time.

This section reports the teachers' responses on the school-based reasons for failure to complete projects in time. This is consolidated in Table 1:

Table 1: School Based Determinants

Determinant	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Low enrolment	10(11.1)	26(28.9)	14(15.6)	20(22.2)	7(7.8)
Boarding schools than day schools	16(17.8)	27(30.0)	10(11.1)	11(12.2)	13(14.4)
School category	27(30.0)	18(20.0)	16(17.8)	7(7.8)	9(10.0)
Length of stay of the principal	34(37.8)	13(14.4)	14(15.6)	11(12.2)	5(5.6)
Sponsor's support	30(33.3)	15(16.7)	14(15.6)	7(7.8)	11(12.2)
Level of education of Board Members	42(46.7)	21(23.3)	7(7.8)	6(6.7)	1(1.1)

The table reveals that 40% of the teachers stated that the low enrolment in schools was the major reason for failure to complete the projects in time. This, of course is associated with the concept of economies of scale and that the lesser the number of students enrolled means less funds collected for development projects. There were 30% of the teachers who pointed out that low enrollment in schools was not the reason for the failure to complete the projects in time. The rest of the teachers remained neutral while others had no projects in progress in their schools. This finding confirms the many studies that show the benefits of the economies of scale cited in Ayot and Briggs (1992).

It can be indicated from Table 1, that a majority (47.8%) of the teachers included in this study agreed that boarding schools support project completion than day schools. This accounted for 55.8% of the teachers who had projects in progress in the schools.

However, 26.6% of the teachers did not agree with the statement that boarding schools support project completion than day schools. To them, there was no relationship between the boarding status of a school and the project completion time.

Table 1 further shows that 50% of the respondents (teachers) were of the opinion that school category do determine the project completion time. This implies that there was a significant relationship between the school category (district, provincials) and project completion time. On the other hand, 17.8% of the teachers did not agree that school category could affect project completion time. The rest of the teachers were neutral. Concerning the length of stay of the principal in the school, 52.2% of the teachers agreed that this is a determinant of project completion time while 17.8% disagreed.

The Table also shows that 50% of the participants (teachers) in this study asserted that support from the school sponsor affect project completion time. This may mean that if the sponsor give support to the project, either in terms of funds or labour or offer technical assistance, then the projects would be completed within a relatively shorter period of time. Another 20% of the teachers rejected sponsor's support as the reason for failure to complete the projects in time. Like Chandra's (2005) ascertain a project cannot be divorced from its sponsor.

Finally, Table 1 reveals that a substantial percentage (70%) of the teachers agreed that the level of education of members of Board of Governors (BOG) is a major reason for failure to complete the projects in time. The probable reason for this is that the B.O.G is the top management of schools and their decisions are made or formulated by them. Therefore if their level of education is high, we expect high quality of decisions made and vice-versa, this will in turn affect the project completion time. It should be noted that only 7.8% of the teachers did not support the level of education of members of B.O.G. as a reason for failure to complete the projects in time.

Other than attaining some level of basic education, members therefore need training to make their services relevant as per the suggestion by Waweru

(2007), Wanderi (2008 and Pearce and Robinson (2007).

Responses on Non- School Determinants of Project Completion Time

It should be noted that 85.6% of the teachers who participated in this study said that there were projects that had been in progress in the period they were in the school and were not yet completed. This Section reports the responses of these teachers who said that there were incomplete projects in their schools.
Their responses to the non-school based for failure to complete the projects in time are summarized in Table 2 below.

Table 2: Non- School Based Determinants of Project Completion Time

Determinant	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Funds not enough	23(29.9)	39(50.6)	4(5.2)	8(10.4)	3(3.9)
Poor parents	20 (26.0)	27(35.0)	13(16.9)	9(11.7)	8(10.8)
Misappropriation of funds	34(44.2)	9(11.7)	17(22.0)	8(10.4)	9(11.7)
Interference from outside	15(19.6)	17(22.0)	22(28.6)	17(22.0)	6(7.8)
Complex project	9(11.7)	17(22.0)	16(20.8)	22(28.6)	13(16.9)
Poor management of the project	29(37.7)	22(28.6)	7(9.0)	7(9.0)	5(6.5)

It is instructive to note from Table 2 that 80.5% of the teachers who had incomplete projects in their study were of the view that inadequacy of funds was the main reason for failure to complete the projects in time. This overwhelming support of this factor was expected since finance is a major input in any project. Finance is a major input in any project. All that is used to complete the project should be bought using money. Therefore if there are inadequate funds the project may not be completed in time. Only 14.3% of the teachers did not consider inadequacy of funds as a reason for failure to complete the project in time. It means that there would be other reasons other than this. The rest (5.2%) of the teachers remained neutral. The importance of money/funds was also identified by studies by Chandra (2005) and Eshiwani (1993).
Table 2 also points out that 61% of the teachers with incomplete projects in their schools said that there were parents who were poor and thus not able to pay development fee. This in turn leads to inadequacy of funds and therefore affects the project completion time. However, 22.1% of the teachers did not agree that there were poor parents who were not paying the development fee and thus a reason for failure to complete projects in time. It can also be seen from the Table 10 that misappropriation of funds as a reason for failure to complete the projects in time was supported by over a half (55.9%) of the teachers.
Only 22.1% of the teachers did not support misappropriation of the project funds as a reason for failure to complete projects in time.
Further, Table 2 indicates that 41.6% of the teachers agreed that interference from outside the school has affected the completion of the projects in time. This interference from outside, may emanate from politicians or even pressure groups. Those who did not consider interference from outside the school as a reason for failure to complete the projects in time accounted for 29.8% of the teachers. The Table 2 further reveals that complexity of the projects in time was supported by 23.7% of the teachers. Therefore a majority (45.5%) of the teachers did not see complexity of the project undertaken as a reason for failure to complete the projects in time. Project complexity means a project was too large or with many fittings and fixtures.
On poor management of the project, Table 2 shows that more than half (66.3%) of the teachers agreed that this was the main reason for failure to complete projects in time. However, 15.5% of the teachers did not agree to this reason for failure to complete the project in time, while the rest 18.2% of the teachers neither agree nor disagreed.

Recommendations

The following recommendations were made:

(1) Principals should hold meetings on a regular basis and include all the stake holders right from the inception of a project to evaluation with an intention to enhance efficient completion of projects in the schools and reduction of delays.
(2) Schools should strive to increase student enrollment to optimal levels in order to enjoy the benefits associated with economies of scale and in particular help reduce the unit costs associated with projects.
(3) Funds from the government, local authority, sponsors and NGO's should be disbursed in

time to avoid project delays while District Education Boards should authorize the charging of development funds in time to avoid stalling of projects due to lack of funds.

(4) School managers including BOG members should be trained on project management and financial management skills in order to improve their capacity in project handling in schools.

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