Strategic institutional development in the South: A case study of Ho Polytechnic, Ghana.

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Introduction

Among the major challenges confronting the tertiary education system in Ghana today are the increasing numbers of students and the consequent pressure of enrolments on teaching and learning facilities that are not expanding fast enough, inadequate funding, quality assurance, relevance of training programmes to the changing needs of students, industry and society, and the impact of globalisation and cross-border provision of higher education. Strategies and policies for institutional growth and the development of new programmes of study or the introduction of new teaching methodologies are therefore influenced, and often driven, by these imperatives and challenges. Other challenges include respect for the norms, guidelines and regulations of the various supervisory agencies of the ministry of education.

In order to appreciate the considerations that determined the major strategic thrusts of the Ho Polytechnic development plan and the implementation approach, it is important to understand the place of the Polytechnic within the higher education system in Ghana and the regulatory framework within which it operates.

The tertiary education system in Ghana

The higher education system in Ghana is defined to include all postsecondary school institutions of learning. At the moment, however, only the universities, university colleges and the polytechnics constitute the tertiary education sub-sector. Ghana currently has seven public universities and nine private university colleges, not counting the 20 or so private theological and tutorial colleges that have satisfied the requirement to operate as tertiary-level institutions. Tutorial colleges mainly coach and prepare students for external examinations conducted by foreign institutions that lead to the award of diplomas or professional qualifications of these foreign institutions. Regulated private participation in tertiary education effectively began in 1993 with the promulgation of the Law that established the National Accreditation Board (NAB). The NAB is the independent government agency for quality assurance in tertiary education. Specifically, the Board is responsible for the accreditation of both public and private institutions with regard to the requirements for their proper operation and the maintenance of acceptable levels of academic or professional standards in their programmes of study and the determination of the equivalences of diplomas and other qualifications, whether Ghanaian or foreign.

Polytechnic education at the tertiary level is a recent development. Prior to 1993 when the Polytechnic Law was enacted, the polytechnics operated as technical colleges that offered mainly sub-tertiary courses and qualifications. Ho Polytechnic is one of the ten polytechnics that the country now has, one in each of the ten administrative regions of the country. All of them are state-owned and are vocational in orientation, offering career-focused programmes in the sciences, technology and business management leading to the award of the Higher National Diploma (HND). The HND is a 3-year postsecondary qualification that is centrally certified by the National Board for Professional and Technician Examinations (NABPTEX). This Board is the legally mandated examining body for polytechnic examinations and is responsible for developing the HND curriculum, review of syllabuses, conduct of examinations and the award of diplomas.

The mission and mandate of the polytechnics as spelt out in the Polytechnic Law are to:

- Provide tertiary education in the field of manufacturing, commerce, science, technology, applied social sciences, applied arts and such other areas as may be determined by the ministry of education
- Encourage study in technical subjects at the tertiary level, and
- Provide opportunity for development, research and publication of research findings.

There is an absence of clarity in the roles of the universities and polytechnics. Although the polytechnics do not yet offer degree qualifications, the admissions criteria for HND courses are similar to those for entry into degree programmes at the universities. In practice, however, the universities are the first choice institutions for further studies by the majority of school leavers, the polytechnics coming in only as second best. Consequently, it is in general the students with lower grades who enter the polytechnics. For this reason, the public perceives the polytechnics as second-rate universities rather than different and equally important institutions that play a complementary (not inferior) role to the universities in national development. The situation is not helped by the fact that the minimum academic qualification for lectureship positions in either the university or the polytechnic is a Masters degree. And because salary levels are higher at the universities, the preferred choice of institution for potential lecturers at the tertiary level is again the university.

Government funding of the institutions is also skewed in favour of the universities. In 1998, the government spent $918 on a university student as against only $230 for a polytechnic student. Although this figure has now marginally increased to about $300, it is still well below the figure for the universities (Afeti 2002). The relationship between the polytechnics and universities is therefore characterised by unhealthy rivalry and competition: competition for students, teachers and government grants.

The governance and management structure of tertiary institutions in Ghana is based on an elaborate committee system of administration with the Governing Council of each institution as the highest statutory organ that oversees the activities of the institution and

is responsible for the appointment and dismissal of the head of institution, the determination of the educational character and mission of the institution, and for matters relating to finance and development. Matters of an academic nature are, however, the responsibility of the academic boards of the institutions. The Governing Councils include persons appointed by the government, persons from industry and civil society, student leaders and representatives of the associations of workers and teachers.

The minister for tertiary education has ministerial oversight responsibility for all tertiary institutions. In discharging this responsibility, the minister is advised by the National Council for Tertiary Education (NCTE), which also exercises a supervisory role over all tertiary institutions, including the allocation of government funds to the institutions and the development of norms and standards relating to quality assurance of the programmes of study and effective management of the financial resources of the institutions. Public universities and polytechnics in Ghana, therefore, have identical systems of governance and are subject to a regulatory framework that is similar in many respects.

According to the Executive Secretary of the NCTE (Effah 2004), total enrolment in the public universities in 2004 was 63,576 compared with 24,353 for the polytechnics. The statistics also show that out of the total tertiary enrolment of about 95,000 students, only about 38% offer courses in science and technology. In fact, the science & technology to business & humanities enrolment ratio works out to 34:66 for the universities and 41:59 for the polytechnics in the 2003/2004 academic year. These ratios are in sharp contrast to the Government policy of achieving an enrolment ratio of 60:40 at the tertiary level. It is also worth noting that the tertiary enrolment ratio or the proportion of the population in the 18 – 24 age group that is actually enrolled in a tertiary education institution is only 3%, compared with the average figure of 4% for Sub-Saharan Africa and about 55% for the more developed countries of the North. And yet about 60% of qualified applicants do not gain admission into any tertiary institution in Ghana because of inadequate physical and academic facilities.

State of development in Ghana

According to a recent report published by the United Nations Development Programme (UNDP 1999), a third of the Ghanaian population of about 20 million live below the poverty line of $1 per day. The national per capita income is only about $450 and life expectancy is about 60 years. Only 4% of rural households get their potable water from indoor plumbing systems and only about 2% of all households have access to a WC or flush toilet. Transport infrastructure in the rural areas is poor, access to potable water supply is limited and the provision of primary healthcare and quality basic education is inadequate and inequitable. Only 39% of the agricultural land of 13.5 million acres is under cultivation and only 0.2% of the total is under irrigation, meaning that agricultural production is mainly rain-fed. Even more worrisome is the fact that about 30% of the agricultural production is lost annually as a result of poor post-harvest handling and inadequate storage facilities.

Economic indicators published by the Institute of Statistical, Social and Economic Research (ISSER) in 1999 show that Ghana's economy is largely dependent on the agricultural sector (45% of GDP), followed by services (32.1%) and industry (29.4%). The report also reveals that the following activities are the fastest growing sub-sectors of the national economy. The transport and communications sub-sector registered an annual growth rate of 5.4%; finance, insurance and banking at 5.1%, trading, restaurants and hotels at 6.9%, mining at 4.9%; manufacturing at 3.8%; construction at 5.4%, and tourism at 6.7%. Over the past five years, the economy has been growing at an overall annual rate of about 5%.

Having painted the broad picture of the national economic and development landscape as well as the tertiary education environment within which the Ho Polytechnic operates, we can now discuss the processes leading to the development and implementation of the institutional strategic plan and policies and how these are being influenced by international donors and partners, globalisation, market forces and new forms of education delivery.

Developing the institutional strategic plan

The Ho Polytechnic (previously known as the Ho Technical Institute) was established in 1968 and upgraded to tertiary status in 1993. Courses and programmes are currently offered to the Higher National Diploma (HND) level in engineering, business management, applied science and technology and fashion design. The student population is about 2500 for 120 academic and 100 administrative and technical support staff. The Polytechnic is located in the city of Ho, from which it takes its name. Ho is about 160 km north east of Accra, the capital of Ghana.

Over the past ten years, the Ho Polytechnic has made remarkable progress towards achieving its objectives as a technological institution. This progress has been accentuated by the development and implementation of an institutional strategic plan that was launched in 2002. At the time the polytechnic was upgraded in 1993, it was not too difficult to determine the core academic and management structures that must be put in place. In effect, *what* to do was not a problem; it was *how* to do the things that must be done that presented the greatest challenge.

How can the polytechnic respond to the development imperatives of the country? How can the polytechnic satisfy the thirst for higher education of the large numbers of school leavers? What measures can we put in place to ensure greater quality and market-relevance of our training programmes? Providing answers to these questions and implementing workable options will inevitably involve change and innovation. Since change is difficult, it is always advisable to address the barriers to change within the framework of an institutional strategic plan that clearly spells out the vision, mission and goals of the institution, and *how* to achieve them.

The barriers to change include the absence of a shared vision, the fear of creating disaffection, the weight of tradition, and lack of exposure of the participants in the change

management process. Parochial self-interest and misunderstanding and lack of trust are some other reasons why people may resist change. When staff and students have the same mental picture of the future of their institution, it is easier to obtain support for implementing institutional development policies.

Since change may result in the curtailing of some longstanding but unfair privileges of some participants in the change process, change managers in tertiary institutions are often afraid of antagonising staff members and student leaders, local politicians and other influential people in the community. But such fears can be overcome when the proposed changes are seen as part of the institutional development policy or strategic plan rather than isolated and uncoordinated initiatives that are targeted at particular individuals or designed to settle personal scores or satisfy personal ambitions and egos. A strategic plan can also support the frame-breaking approach to change management in which the change manager has the courage to do away with doing things the "traditional" way, if and when necessary.

In developing our strategic plan, we also took into account the issue of relevance of our programmes of study from the perspective of the trainees, the demands of the job market, the government and private employment sectors, and the wider community as a whole. Concerns about quality were addressed from the angle of teaching staff qualifications and professional experience, the quality of the teaching and learning facilities, student-teacher ratios and academic (or unit) costs per student.

In order to ease the pain of change and garner support for a smooth implementation of the institutional development policy, we provided several incentives and rewards as change levers. This included motivating staff to acquire higher academic and professional qualifications, and offering soft loans to staff to purchase cars for their personal use.

We also recognised that lack of exposure can negatively impact on the management of tertiary institutions in developing countries. Leaders and senior management staff of tertiary institutions who have little awareness of the world around them and of ground-breaking educational initiatives elsewhere will suffer from a poverty of ideas that will hamper their ability to initiate innovative programmes of their own for the continual renewal and transformation of their institutions. Our strategic plan, therefore, made provision for staff exchanges and study tours abroad as part of measures to strengthen our human resource base.

In summary, our institutional vision and mission statements reflect the mental picture of what we want our institution to be and how we plan to be what we want to be.

Vision and mission of Ho Polytechnic

The vision of the Ho Polytechnic is:
A reputable technological institution contributing actively to national development by providing career-focused education and skills training to the highest level possible and

exploiting opportunities for conducting practical research in close collaboration with business and industry.

Our mission statement is much more elaborate. The mission of the Polytechnic is to:

- Maintain a conducive teaching and learning environment to promote the training of highly-skilled and competent manpower imbued with entrepreneurial skills in partnership with other institutions and industry
- Provide opportunities for and conduct practical research to advance economic growth
- Provide expert service to satisfy societal needs, and
- Pursue the diversification of funding sources to support institutional activities.

While carrying out this mission, due regard will be paid to gender sensitivity, the needs of the physically challenged and respect for the environment.

The strategic thrusts of the development policy

Stemming out of our vision and mission statements, we have identified eight major strategic objectives. These are:

- Strengthen the human resource base of the institution
- Administer and manage efficiently the human, financial and physical resources
- Produce highly-skilled manpower for national development in the fields of manufacturing, commerce, applied science and technology
- Acquire adequate academic and physical infrastructure
- Facilitate access to science and technology education, especially for females
- Increase the internal income-generation capacity of the Polytechnic and diversify the sources of funding
- Provide expert advisory services to support local technology
- Maintain a healthy, manageable student population and cost effective student-teacher ratio.

Policy implementation and international donor assistance

Both the development and implementation of our strategic plan have been significantly influenced by the activities, support programmes and financial assistance of three major international donor partners and organisations. These are: The World Bank (International Development Association – IDA), The Japan International Development Agency (JICA), and The Netherlands organisation for international cooperation in higher education (NUFFIC).

IDA - TEP

In 1992, the World Bank agreed to support the Ghana Tertiary Education Project (TEP) with an IDA credit facility over a five-year period that was originally intended to end on 31 December 1997, but which finally closed in January 1999. The project objective was to help improve quality and relevance of the programmes of study of the universities and polytechnics through the provision of academic facilities including books, journals,

laboratory materials and workshop equipment, staff upgrading and physical infrastructure development.

The Ho Polytechnic benefited immensely from this IDA assistance. New classroom buildings were constructed and old ones rehabilitated. Innovative staff development programmes were designed and implemented, including the provision of financial sponsorship for about twenty teachers to pursue advanced studies in reputable South African institutions of higher learning and for others to follow tailor-made courses and pedagogical training at a local university in Ghana. In spite of these obvious successes, the outcome of the TEP was rated as "barely satisfactory", mainly because of the failure to achieve a key goal of the project's development objectives, which was to achieve financial sustainability of the tertiary education system. The attainment of this crucial objective was compromised by the uncontrolled growth of student enrolments on the one hand, and the inability of the ministry of education and the institutions, on the other hand, to increase academic fees or institute effective cost-recovery measures because of organised student resistance and the lack of political will.

JICA

From March 2000 to October 2001, following the signing of a technical cooperation agreement between the Government of Japan and the Government of Ghana, JICA conducted a Study for the development of a Master Plan to strengthen technical education in Ghana. The goal of the Study was to investigate ways in which technical education in Ghana could be restructured for sustainable growth so as to be less dependent on government funding as well as achieve flexibility in human resource development so as to respond more effectively to the changing demands of the labour market. The project's development outcome was a blueprint or Master Plan for the technical education sector, comprising essentially the polytechnics and technical institutes.

The Ho Polytechnic, as a member of the counterpart team, played a major role in the project formulation and implementation. The project identified six priority programme areas of study to be offered at the polytechnics, namely food processing and post-harvest technology, wood processing, manufacturing technology, hospitality and tourism, information and communications technology, and business information technology. These disciplines were selected on account of their relevance to the current market situation and their potential to support the most rapidly growing sectors of the national economy and the brighter job prospects of graduates specialising in these areas.

The most important outcome of the JICA Study was the recommendation to introduce competency based training (CBT) into the curriculum and teaching methodology of the polytechnics. In this regard, the objective of the Study has been attained but no institutional development activity on CBT has yet taken place. Apparently, this will be the object of a follow up technical cooperation project.

IDA – TALIF

The most recent World Bank (IDA) support to the tertiary education sector in Ghana is the Teaching and Learning Innovation Fund (TALIF), which operates under the Education Sector Project of the Ministry of Education.

The general objectives of TALIF include:

- Improving the quality of teaching and learning
- Sharpening the relevance and skills content of polytechnic education
- Improving the efficiency with which tertiary institutions manage their academic programmes
- Expanding access to strategically important postgraduate programmes, and
- Tackling the problem of HIV/AIDS

The TALIF funding structure is itself an innovative departure from the traditional funding mechanisms adopted by many donor agencies. TALIF is designed to provide financial support only in response to proposals from tertiary institutions seeking to improve the quality of teaching and learning in their academic departments. Proposals are assessed both at the institutional level through a peer review mechanism and at the level of the National Council for Tertiary Education (NCTE) by an apex Academic Review Panel organised by the NCTE. Successful proposals then qualify for funding under strict conditions of disbursement and clearly defined performance indicators and measurable results.

Since the project started with the first call for proposals in 2004 and the subsequent review processes, the Ho Polytechnic has received approval for the funding of a major proposal to install a V-Sat Internet connectivity backbone and a campus wide wireless Ethernet system that would provide Internet services to the entire polytechnic community on a 24-hour basis.

The chances of success of a proposal are greater if the proposal seeks to address a stated objective in the institution's strategic plan. On the other hand, the responsibility is on the institution to write investment-worth proposals, a situation that could put at a disadvantage less endowed tertiary institutions or institutions that lack the necessary human capacity to do so, since all proposals are subjected to the same rigorous assessment criteria.

NUFFIC

In October 2004, NUFFIC awarded a grant to a Dutch consortium, DLV Agriconsult, for a project to "Strengthen Agricultural Engineering Education at Ho, Wa and Bolgatanga Polytechnics for Rural Development and Poverty Reduction" under a bilateral agreement signed between the Government of Ghana and the Royal Netherlands Government. The project will end on 30 September 2008.

The Ho Polytechnic was actively involved in the project formulation and tender evaluation process. As a result, project implementation has started off on a sound footing with a deep mutual appreciation of the project objectives, regarding in particular the

capacity building imperatives of the polytechnics, and the modalities for an efficient collaboration in meeting the institutional development objectives of the polytechnics involved in the project.

A remarkable aspect of this project, as captured in the project outline, is the apparent alignment of the project objectives with the JICA recommendation to introduce competency based training or CBT into the polytechnic system. Over the past two decades or so, CBT has been receiving renewed attention world-wide as a teaching and learning methodology that can effectively respond to the skills needs of industry. CBT is a systematic learning process that requires the learner to demonstrate specified competencies or show proof of ability to perform specified professional tasks. CBT is built on identified job competencies or professional tasks that are relevant to the needs of industry or a particular occupation.

In the CBT system, therefore, industry prescribes the competency standards and assessment guidelines for evaluating the student's competence. The educational institution or training provider is responsible for developing appropriate learning strategies, assessment materials, as well as the professional and academic resources needed to effectively deliver training that will meet the requirements of the industry-specified competencies. The CBT methodology therefore involves a strong symbiotic relationship between industry and training providers. CBT also enables people to enter and remain in the workforce in existing jobs, upgrade their skills or acquire new skills for another job.

This project therefore responds in a very powerful way to an important aspect of the institutional vision of the Ho Polytechnic, which is to increase collaboration with industry and enhance graduate employment prospects.

Key lessons learned and recommendations

The experience of Ho Polytechnic with several international donor organisations and partnership programmes has generated valuable insights, which can help strengthen collaboration with donor and project implementation agencies and increase the chances of project success. The following are the key lessons learned and some useful recommendations for improving donor relationships with recipient institutions in a changing tertiary education landscape in developing countries:

a) Financial sustainability of the tertiary education system in many developing countries, including Ghana, will be difficult to achieve in the near future because of the low per capita income of these countries, the lack of political will to introduce realistic cost-recovery measures in public tertiary institutions, and the imperative to develop adequate human capital for national development. International donor assistance is therefore likely to continue albeit in a changing conceptual framework
b) Active participation of the recipient institution itself in project formulation, tender evaluation and project implementation is essential. This will confer on the institution a stronger sense of ownership of the project

c) Donor organisations and funding agencies are more likely to achieve quicker consensus on funding priorities with tertiary institutions that have in place an institutional development policy or strategic plan
d) Capacity building of all management staff in management techniques and academic leadership should be incorporated in all tertiary education project outlines for funding
e) Parallel funding of the same project by two donor organisations should be avoided unless absolutely necessary. Even then, it should be confirmed that the project can be broken down into components and that each component can be financed independently of the other. If this is not done, the different modalities and requirements for obtaining "no objections" and the peculiar corporate practices of two separate donors can stall or negatively affect project implementation schedules
f) Broad consultation among donor organisations operating in a particular country should be encouraged in order to avoid duplication of initiatives
g) Staff development and upgrading are necessary for capacity building. Study tours and short-term training programmes abroad often provide excellent opportunities for exposing young teachers to new, illuminating experiences and should be encouraged
h) Project accounting procedures can become cumbersome, especially where frequent currency fluctuations occur, rendering reconciliation of fund disbursements difficult. Financial reporting should therefore be as simple as possible
i) Clear milestones and performance indicators must be agreed at the project formulation stage or preferably during the inception phase, when the implementing agency must have had the opportunity to scan the local environment for a better understanding of the cultural dynamics and socio-economic factors at play.

In conclusion, successful projects, from the point of view of attainment of institutional development goals, are those that recognise and appreciate the aspirations and cultural sensitivities of the recipient partner within the broad ideological and regulatory framework of the donor organisation.

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