CHAPTER 10

QUALITY ASSURANCE IN THE DELIVERY OF TVET PROGRAMMES VIA ODL: THE CASE OF A SMALL ISLAND DEVELOPING STATE

Olabisi Kuboni

INTRODUCTION

Small developing countries, with their limited resources and, probably more importantly, their inefficient use of those resources, often find themselves so overwhelmed by the demand to provide services of various kinds that little sustained attention is paid to the quality of what is provided. The sums allocated in successive annual national budgets for the respective service sectors are almost all spent on plant and equipment and staff remuneration. Moreover, to the extent that any thought is given to quality issues, it is almost taken for granted that the standards set by the more industrialised countries will serve as the benchmark for local practice.

The above scenario also represents the situation in the education system in most of these countries, including the technical and vocational education and training (TVET) sector. This chapter focuses on the practice in small developing states where systems for establishing and maintaining quality in the delivery of TVET programmes are either non-existent or in the early stages of development. Trinidad and Tobago is used as the case to address this issue since it has recently set up an agency charged with the responsibility "to develop a system of national training to improve the nation's competitiveness and turn technological and economic change to the country's advantage" (Supersad, 2000). It is against this background that the National Training Agency (NTA) of Trinidad and Tobago was launched in June 1999. (The NTS is discussed in greater detail later in this chapter.)

TVET IN TRINIDAD AND TOBAGO: AN OVERVIEW

The twin-island state of Trinidad and Tobago is located at the southern end of the Caribbean chain of islands, close to the South American mainland. The southern part of the island of Trinidad is approximately 11 kilometres from Venezuela. Its total land mass is about 5128 square kilometres (1980 square miles). Its population is 1.3 million

with some 68% of that total in the 15- to 64-year age bracket. Unemployment stands at approximately 14% of the labour force. The country's economy is based largely on the production of petroleum and natural gas. Successive governments have attempted to diversify the economy away from a reliance on these two products and have paid special attention to tourism and manufacturing. Nonetheless, the economic resource base remains largely restricted to oil and gas.

While technical/vocational education has existed in the country since the beginning of the 20th century, it was not until the 1950s to 1960s that it became fully established within the formal sector beyond the primary level. This development more or less coincided with the country acquiring independent status. Educational reform was high on the agenda of the government of the day, and this entailed, in part, increased emphasis on technical/vocational studies. This new policy orientation was realised on three fronts.

First, the secondary school curriculum was expanded to include relevant subjects, with government itself introducing a new type of secondary school (the modern secondary) in which the teaching of technical/vocational subjects was emphasised. Later, the introduction of the junior secondary/senior comprehensive sector expanded this aspect of the secondary school curriculum even further.

Second, tertiary-level institutions catering exclusively to this area of study were established. And third, the government also introduced youth camps, which targeted school dropouts and unemployed youth, providing them with the opportunity to acquire employable skills.

For the last four decades, therefore, TVET has been a core component of the curriculum of the education system of Trinidad and Tobago. More recently, however, perspectives about the role and function of this area of learning in the national economy have evolved, giving rise to demands for a new outlook on the type of training provided and on the modalities used for such educational provision. The following sequence of factors are considered critical in influencing these demands:

- Notwithstanding the advantages of being a producer of oil and gas, output is small and there continue to be concerns about the country's capacity to sustain itself with this limited natural resource base.
- While, in the prevailing globalised environment, foreign direct investment (FDI) is widely seen as a feature of economic development in all countries, the rationale for its inclusion in less-developed countries underscores the continued weakness of these economies. This view is shared by Kamara (1998), who citing a 1996 circular of the Trinidad and Tobago Ministry of Finance, summarises the reasons for the promotion of FDI in Trinidad and Tobago this way:
    - The need for structural adjustment occasioned by the economic slippages of the 1980s
    - The need for the reorganisation of the public enterprise sector which had been a drain on the treasury
    - The problem of the high external debt
    - The need to raise production and increase employment
- It is widely held that FDI has given rise to increased employment opportunities but that these are not being taken up given the low levels of relevant skills in the national population.

- This demand for a significant increase in the skilled workforce has spawned the proliferation of a new set of educational providers in the TVET field. In addition to the conventional institutions at the secondary and tertiary levels mentioned above, other providers have emerged. These range from specially established government and quasi-government agencies catering to non-institutionalised youth, industrial organisations, community-based organisations, non-governmental organisations (NGOs), and even individuals.
- Diversity in the clientele seeking access to the training is more pronounced now than previously. Most notably is the perception that, proportionately, there has been an increase in the category referred to above as school dropouts and unemployed youth. There is also the perception that many in this group are demotivated. Another category gaining prominence are the mid-career adults seeking to enhance their job skills or to acquire new ones. Those who fall within the category of recent secondary school graduates may be further subdivided into graduates with full qualification at the general education level, those with partial qualification at the same level, and those with higher-level qualification.
- Providing opportunity for skills training is increasingly being seen as an important route for addressing issues of poverty alleviation and relief from social deprivation.
- The extent of the demand both in terms of the size and range of the potential student cohort, as well as in terms of the range of training programmes required, has given cause for concern about the adequacy of current delivery arrangements whether recently introduced, or existing for a long period of time.

QUALITY, QUALITY ASSURANCE AND QUALITY CONTROL

While the notion of quality in education is not new, its rise to prominence recently is due in no small measure to the increased scrutiny being made of the output of educational institutions with a view to assessing its relevance and appropriateness to societal needs. Society is now demanding that graduates of the formal education sector be equipped to function in a more complex and dynamic work environment. Consequently, whatever may have been the connotation of this concept earlier, educational quality in today's world is a measure of the fit between educational output and the requirements of the world of work.

Alongside this perspective, there is also the view that quality does not exist in isolation of its context of use. While this may appear to be a non-contentious statement on the surface, problems can arise if one seeks to determine what the context is. Such an undertaking may require some attempt at resolving conflicting perspectives. What, therefore, are the appropriate criteria for determining an appropriate context for skills training? There are three worth considering.

First, the idea of TVET being industry-driven has been taking centre stage recently, no doubt heightened by the close working association between the NTA (the new training agency established by government) and the industrial sector. Inherent in that outlook is the focus on a competency-based approach to learning, identifying clearly defined areas of learning and setting clear criteria to be attained in order to demonstrate competence in specific job-related skills. Such an approach, advocates contend, can be expected, over time, to produce workers who are multiskilled and who are equipped to deal with the challenges of an economic environment in which job-for-life expectations are a thing of the past.

A second criterion is the notion of lifelong learning with its emphasis on building skills in learning-to-learn, regardless of the area of education and training involved. The third criterion highlights experience as playing a significant role in learning and gives high priority to conceptions that regard learning as the construction of knowledge.

There are important differences in the notion of quality inherent in the three ways of defining context suggested here. Moreover, these differences have the potential to create tension in the event that there is inconsistency between the context in which educational practice is actually taking place and the notions about what that context ought to be.

While the two terms "quality assurance" and "quality control" are frequently used interchangeably at the level of practice, the distinction that the literature makes between them is an important one that cannot be ignored.

Quality assurance is defined as the set of activities that an organisation undertakes to ensure that standards are specified and reached consistently for a product or service. Consequently, it entails taking proactive measures to avoid errors. Quality control, on the other hand, involves reactive measures to correct faulty products and services or, alternatively, to discard them.

Where TVET in Trinidad and Tobago is concerned, the position that underpins the establishment of the NTA is one that emphasises the need to develop systems for the implementation of quality assurance measures.

THE CASE OF THE NTA OF TRINIDAD AND TOBAGO

Given the proliferation in the number and type of training providers, the Government of Trinidad and Tobago set up the National Training Agency (NTA) as an umbrella agency to provide guidance and cohesion for the continuing development of TVET, thus avoiding the inevitable inefficiency that goes with piecemeal approaches to change.

The NTA evolved out of the National Training Board (NTB), which was primarily concerned with identifying areas for training and ensuring that the relevant training was provided (in some instances doing it itself). The NTA for its part has stated categorically that it does not provide training. Rather it sees itself as facilitating and co-ordinating the efforts of training providers to meet the needs of trainees, employers and the economy as a whole. To this end it has set itself six strategic aims, namely:

1. To develop the rationale for a national training plan based on an analysis of which sectors of the economy offer the best opportunity for sustained social and economic growth and development
2. To develop the occupational standards which are required for each of these key sectors and a coherent national framework for vocational qualifications based on these standards
3. To build a rigorous system of assessment based on the competence-based approach to technical and vocational training
4. To provide high-quality guidance and support to trainers and instructors, training providers and awarding bodies.
5. To enhance participation in lifelong learning and opportunities for all using a variety of modes of delivery (including distance learning)
6. To work efficiently, effectively and in partnership with others

Overall, the NTA set itself the task of addressing two separate yet inter-related goals. First, it would seek to bridge the skills gap between unskilled, unemployed members of the society, particularly the youth, and the demand of industry for a skilled workforce. Second, working in collaboration with other NTAs of the Caribbean region, it would seek to establish occupational standards to facilitate the free movement of skills among member countries of the regional trading grouping, the Caribbean Community (CARICOM). (This second goal emerged as a result of the decision by CARICOM to transform itself into a single market and economy (SME), and in that context to remove barriers to the movement of skilled labour within the Community. At the time of writing, this decision was still to be implemented.)

It should be noted that this trend towards greater "portability" of qualifications is not unique to CARICOM. Rather it has its genesis in the wider phenomenon of globalisation and trade liberalisation. Thus, by setting up NTAs to facilitate the attainment of this goal, member states of CARICOM were essentially falling in line with a trend that was already established at the global level.

Quality assurance, as conceptualised and implemented by the NTA is, therefore, intended to provide the framework for attaining these two broad objectives.

Quality assurance, standards, NVQs

In the field of TVET, the terms "quality assurance" and "national vocational qualifications" (NVQs) are almost inseparable, with the latter being widely regarded as the concrete representation of the principles embodied in the former. The entire system of NVQs as practised in Trinidad and Tobago and other Commonwealth countries was adopted from the United Kingdom, which from the mid-1980s had begun to take steps to standardise its own technical/vocational qualifications. Indeed, some of the factors that influenced the decision to set up the Trinidad and Tobago NTA bear a close resemblance to those previously highlighted in the UK context. For example, Grant (2000) talks about the need for an appropriately skilled workforce in a rapidly developing global economy. He also talks about the mismatch between industry needs and the human resource output of education and training institutions.

In Trinidad and Tobago, the route towards the formulation of NVQs begins with the establishment of occupational standards for respective sectors of industry. To facilitate this process, the NTA was instrumental in setting up industry training organisations (ITOs) to work in collaboration with the agency itself to develop standards for the various areas of work in the respective industries. At the time of writing there are ITOs in six sectors: energy, tourism and hospitality, food and beverage manufacturing, air conditioning and refrigeration, information technology, and construction. Collectively, these six ITOs have drawn up 22 draft standards to date. They include standards for welding/fabricating/fitting (Level 1), emergency medical technicians (Level 2), food and beverage service (Levels 1,2,3), masonry (Levels 1,2,3), and information technology (Level 2) (See *www.ntatt.org* for further details.)

The NTA then converts these standards into qualifications — the Trinidad and Tobago National Vocational Qualifications (TTNVQ) — and uses a standard format for presenting them. For example, the TTNVQ for information technology (Level 2) is subdivided into 10 units, with each unit developed around a minimum of one and a maximum of three objectives. Each objective provides the basis for the creation of an element. Thus one unit may consist of a maximum of three elements. Each element provides an outline of:

- *The performance criteria:* a list of activities that must be performed as evidence that the objective was achieved. These are the outcomes to be attained, or stated otherwise, standards that must be met.
- *The range statement:* a list of the specific tasks or activity sub-units that must be carried out and in which the trainee must demonstrate competence.
- *Knowledge and understanding:* an outline of the essential content; that is the content that the trainee must acquire to support performance of the new skill.
- *Assessment of performance:* the data to be collected as evidence that the objective has been attained, as well as the means for collecting these data.

TTNVQs can be developed for five levels of competencies, namely Level 1 (semi-skilled), Level 2 (skilled), Level 3 (technician), Level 4 (professional) and Level 5 (advanced professional). Each qualification represents a competency that must be acquired, hence the term competency-based training, to refer to this approach to training. The NTA adds further that while its current focus is on TVET, the use of this competency-based system is not restricted to technical/vocational studies.

There are two other points to note about the NVQs. First, it is a self-driven, self-regulatory system and, as explained earlier, is generated from within the context that it is to be used. As also noted earlier, the NVQ is developed based on standards established by the appropriate ITO. In this regard, the NTA advises that this practice represents an important point of departure from the dominant mode of assessment that currently exists in the Caribbean region. Specifically, the agency draws attention to the Caribbean Examinations Council (CXC), which develops syllabi and administers examinations at the secondary level, and to some extent at the primary level of the regional educational system. The examination system that CXC administers is a centralisd one, whereas the system for developing and awarding NVQs is implemented at the local level.

Second, NVQs are designed to support assessment rather than teaching. Thus, in particular in an industrial setting, the individual with whom the trainee interacts periodically in the workplace is the assessor who carries out the function mainly by observing the candidate's performance on the job. In emphasising the perceived value of this shift from teaching to assessing, the NTA notes that it is the candidate who signals his or her readiness to be assessed. Moreover, given a focus on competence, there are only two possible outcomes to the assessment exercise: the candidate is assessed as either being competent in the skill, or not competent.

TTNVQ procedures are administered by three sets of personnel. The first, the assessor, is competent in the area being tested and has received training in the techniques and strategies of assessing. As indicated above, assessment is normally done through observation. An internal verifier is responsible for ensuring consistency among all assessors in a single training organisation. Finally, the external verifier functions at the industry level and periodically evaluates the organisation to ensure that it maintains the required standards for assessing trainees. Ultimately, the NTA, acting as an accrediting agency, conducts an audit of the training organisation, paying special attention to areas such as the curriculum, physical facilities, staff qualifications and teaching methods as they pertain to the programme for which accreditation is being sought.

Recently two providers were accredited to deliver one programme each. The Youth Training and Employment Partnership Programme (YTEPP) received approval for the Level 1 programme in welding, fabrication and pipefitting, while the South West

Regional Health Authority (SWRHA) was accredited to provide training for the emergency medical technician (EMT) basic training programme.

Developments of the type are not unique to Trinidad and Tobago. As indicated earlier, the implementation of NVQs in Commonwealth countries came about as a result of the UK initiative to introduce its system to other member countries. Thus, Gnanam's (2000) description of the establishment of the National Qualifications Framework (NQF) of India reflects some core similarities with the Trinidad and Tobago system. However, in spite of these similarities, the two systems differ in two important respects.

First, the system that is just getting off the ground in Trinidad and Tobago is industry-driven, as evidenced by the establishment of ITOs to formulate the occupational standards referred to earlier. Hence, while industrial organisations represent only one type of training provider, there is no doubt that they wield considerable influence in determining the nature of TVET and they are setting the pace for other providers, including the long-established institutions in the formal education sector.

On the other hand, Gnanam describes a situation in India in which universities still hold the dominant position over newer non-traditional providers. Thus he notes, "Presently there is no system to recognise [the] important qualifications that provide career orientation to … graduates with appropriate emphasis on the job-related skills and competencies" (Gnanam, 2000).

A second difference lies in what Gnanam describes as the "unit of accreditation." He explains that different accrediting agencies use different units, and he lists these units as the institution, the programme, discipline-based departments of studies and faculty. As noted above, the accrediting agency in Trinidad and Tobago, the NTA, uses the programme as the unit to be accredited. Gnanam points to difficulties in using the programme as the unit in India given "the large network of institutions offering thousands of qualifications at each level." At the same time, he is very conscious of the problems that may occur when the whole institution is taken as the unit since "it may be considered as too large a unit to be the base for quality assurance particularly for purposes of mutual recognition."

No doubt there are pros and cons whatever unit is selected, and countries need to consider their own circumstances when making this decision.

ISO 9000

Even as countries are using the UK model of quality assurance in TVET, many, including Trinidad and Tobago, are giving consideration to the ISO 9000. The International Organization for Standardization (ISO) was formed on February 23, 1947 to create international industrial standards. Some 55 years later the ISO has evolved into a non-governmental worldwide federation representing national standards bodies of more than 100 countries. The federation, which now has its central Secretariat in Geneva, comprises some 2700 technical committees, subcommittees and working groups, which perform the task of setting standards for a range of products and services.

The ISO 9000 is a series of quality management and quality assurance standards for industry. The series comprises three main types of quality standards, the most all-encompassing being the ISO 9001 which applies if a company is involved in design, development, production, installation and servicing (Harding and Tesolowski, 2000).

While the ISO 9000 was essentially developed for industry, it is increasingly being regarded as a generic tool applicable to all types of organisations, including educational and research organisations. Karapetrovic, Rajamani et al. (1998) identify several ways in which higher education can benefit from applying ISO 9000 standards to its operations. These include:

- Clearer articulation of the rights and responsibilities of students and staff bodies
- Formalisation of objectives in an explicit form
- Usefulness of the quality system in accreditation by government bodies

The possible implications of quality assurance agencies working in the area of TVET are addressed later in this chapter.

COMPETENCY-BASED TRAINING AND OPEN LEARNING

It can be argued that a competency-based approach to TVET incorporates features that are consistent with some of the key principles that underpin open learning. Hodgson (1993) notes that the key feature of open learning is that it seeks to remove all barriers to learning, most notably barriers of time and place of study. She explains further that it seeks to give learners optimum control over their own learning. Of special importance in her description of the concept is the emphasis placed on the needs of the learners rather than on the requirements of institutional structures.

Rowntree (1991) goes even further in specifying the barriers that open learning seeks to eliminate. He lists 10 common barriers as lack of information, unsuitable content, unsuitable methods, the qualifications gap, timing, place, costs, anxiety, domestic pressures and physical disabilities. He then identifies what he perceives as the key characteristics of open learning. These include the ability of learners to take courses to suit their own purpose, to choose content, thus focusing on what they require and ignoring what they do not need, and to choose when and how they will be assessed. Learners are also able to decide on the route of study and to have access to a variety of teaching methods.

There is no doubt that the training approaches discussed above contain some of the features of open learning. There are no entry-level qualifications specified; indeed given the multi-level structure of the NVQs, starting from semi-skilled, very few persons if any would be debarred from attempting to obtain an NVQ. With providers ranging from community-based organisations to formal educational institutions, all persons who so desire should be able to find a provider suited to their particular needs and circumstances. Factors such as age, gender and socio-economic background become less of a barrier in light of the official recognition given to a wider range of providers under the system implemented by agencies such as the NTA of Trinidad and Tobago.

One provider in Trinidad and Tobago whose operations are geared to minimise exclusion and foster greater inclusion is the Youth Training and Employment Partnership Programme (YTEPP). This quasi-governmental organisation offers both community-based and centre-based programmes. The former type is targeted to youths 15 to 30 years of age, especially those in rural and remote areas. Communities are encouraged to decide on the projects to be conducted, and classes are held wherever space can be provided.

Even the more structured centre-based programmes allow for a fair amount of flexibility. For example, the Welders and Fabricators Programme includes a mix of teaching/learning methods, including actual project work in which the trainees are given the opportunity to fabricate storage tanks and steel pipes for oil refineries and petrochemical plants.

Another important open learning feature of the competency-based approach, which is probably only practised in the work environment, is the opportunity given to trainees to decide when they are ready to be assessed.

Which is more important: the learner or the task?

In light of all of the above, can one really equate this approach with open learning? A positive response to such a question may not be completely appropriate. Even though it may appear that the learner is the focus of attention, closer examination suggests that it is the requirements of the task rather than the needs of the learner that is driving the process. It can be argued that the real rationale for breaking down the task into its component parts is to ensure accuracy and efficiency in the performance of the task rather than to facilitate meaningful learning on the part of the trainee/learner. This interpretation of the practice is reinforced by the fact that only two possible outcomes are entertained: the trainee can either perform the skill or not.

Indeed, competency-based learning is firmly rooted in the traditions of behaviourism, which deals only with the way the external environment is organised to facilitate the attainment of an observable outcome. No attempt is made to deal with the learning process that the individual brings to the task. This remains firmly locked away inside the "black box."

Assessing, teaching, learning

While acknowledging that a lot of learning can take place without teaching, the apparently low profile given to teaching in the development and implementation of NVQs may not be totally consistent with the ideals of open learning. As noted above, assessing is the main function of the person with whom the trainee interacts when training takes place on the job. Any other tasks that he or she undertakes are subsidiary to that of assessor. It is likely, though, that in the case of the other types of providers, greater emphasis may be placed on building a curriculum to support teaching and learning. However, because the NVQ is structured to give prominence to the testing function, it is very likely that testing strategies may dominate even outside of the period set aside for assessment. There is reason to have strong reservations about an educational experience that minimises the role of teaching in the learning process or, stated otherwise, that seeks to test without teaching.

Open learning, while not insisting on the presence of a human teacher at all times, recognises the importance of including the teaching function in the learning experience. That teaching function may be embedded in self-study materials, which may be used in conjunction with teaching-learning experiences that require interpersonal interaction. Such interaction may take place in a face-to-face setting or through telecommunications technologies. In open learning there is a clear role for testing, but testing cannot be seen as a substitute for teaching.

What about the curriculum?

Those favouring the current approach may counter the perspective expressed above with the argument that the route from the articulation of occupational standards to the generation of NVQs is underpinned by principles consistent with the practice of curriculum design and development. These principles are probably only minimally applied and the intention is not so much to create a curriculum document but to identify and sequence tasks related to the skill to be acquired in a manner that facilitates ease of perusal by both trainee and assessor. A curriculum document would place the new area of learning within its broader context, would provide a rationale for the new learning and would attempt to analyse the target learners and articulate entry-level knowledge. It would seek to identify overall module goals out of which would come target objectives. It would provide a clear course description and give clear guidelines about how learners are to be evaluated, ensuring that evaluation strategies are suited to the type of learning that students are engaging in. In addition, it would seek to ensure that the strategies used could be expected to yield outcomes that are capable of demonstrating that objectives have been achieved.

Lifelong learning

One of the strategic aims of the NTA is to enhance participation in lifelong learning. Advocates of open learning also subscribe to this notion. One wonders, though, whether the competency-based approach is capable of setting learners on the path of lifelong learning. In the wider literature of learning, theorists and practitioners alike have been exploring the ideas associated with constructivism in an attempt to identify teaching strategies that can enhance learner capability to build knowledge. They argue that it is only when learners are viewed as active participants in the knowledge-building process that the issue of lifelong learning can be considered. There are those who would contend that the behaviourist approach to learning adopted by organisations like the NTA is inconsistent with a commitment to lifelong learning.

International standards and open learning

Whether the benchmark used is the NVQ model of the United Kingdom or the ISO 9000, it is evident that, based on prevailing conceptions, TVET must conform to worldwide standards. In this era of globalisation, and given the dominant position which industry holds in that process through the multinational corporations, it is clear that the "portability" of qualifications would not simply be treated as a valuable option, but as a necessity.

At the same time though, one cannot deny that an adherence to a benchmark that is set at a global level may undermine the essential flexibility that is a hallmark of open learning teaching/learning strategies.

A return to the issue of quality

What then of the issue of quality in the competency-based approach to TVET? As stated earlier, quality does not exist in isolation from its context of use. Further, it was suggested that three possible contexts may be the industry-driven model of TVET that currently prevails, the ideal of lifelong learning and notions of learning that emphasise the role of experiential knowledge and learning as the construction of knowledge. It

would seem that difficulties may arise if policy-makers and those in key decision-making positions make greater claims for the current approach to TVET than it is capable of producing. A clear perspective becomes even more necessary, since TVET is often projected in terms of its contribution to human development.

QUALITY ASSURANCE AND THE MONITORING AGENCY

While acknowledging that the core function of the Trinidad and Tobago NTA is to ensure quality in the implementation of TVET programmes, one may wonder what quality-assurance mechanisms exist to govern the umbrella body itself. Or, to put the inquiry in the words of a popular Trinidad and Tobago calypso, who (or what) will guard the guards? What structural arrangements must an organisation like the NTA put in place to allow it to carry out its mandate efficiently?

The following are proposed requisite components of such a body. (These are intended for a wider audience since some of the components are already a feature in the NTA.)

- *Curriculum development:* to support the work of providers in designing new curriculum and making changes to existing ones
- *Instructional design:* to assist providers in articulating learner needs and designing systems to support varying categories of learners
- *Systems analysis:* to engage all stakeholders in a review and evaluation of current organisational structures with a view to effecting changes as required by changing educational goals
- *Technology support services:* to facilitate access to a well-integrated technological infrastructure to support a range of functions including teaching and learning, administration, student support services and publicity
- *Quality assurance and accreditation:* to set standards to govern the operations of all aspects of the TVET programme
- *Training:* to provide ongoing professional development activities for various categories of personnel
- *Project management:* to ensure the efficient co-ordination of the various elements of the work of the organisation
- *Research and evaluation:* to carry out continual analysis and evaluation of the operations to determine areas of strength and/or weakness in the system and as a forerunner to making recommendations for improvement

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