

4.2 Performance auditing

4.2.1 Introduction

Performance auditing is currently gaining tremendous support in South Africa. It is highly regarded internationally and countries such as Canada, Britain and Japan are leaders in research in this area. The main reason for its existence and growth is that performance auditing gives management of organisations peace of mind (assurance) that the scarce and limited resources are employed and utilised optimally. Management of organisations need a process to identify how resources can be optimally used without a decrease in profits or a lapse in the quality of service delivery.

Although different terminology is used in respect of this type of assurance engagement in the private and public sectors, the underlying engagement objectives are the same, namely the optimal use of scarce resources – minimise input to maximise output. Generally the term “performance auditing” is used in the public sector whereas “operational auditing” is used by the private sector.

However, several other terms are used nationally and internationally. A few of the most commonly used terms are as follows:

- 1 economy, efficiency and effectiveness auditing (these terms are sometimes used in the United States of America);
- 1 performance auditing (this term is used by the public sector in the United States of America, Canada and the Auditor General of South Africa);
- 1 value-for-money auditing (this term is used by the public sector in Britain);
- 1 management auditing (directed more at the auditing of specific management techniques of the organisation and performed mainly in the private sector);
- 1 efficiency auditing;
- 1 benchmarking, with differentiation between strategic, operational and client strategies; and
- 1 operational auditing (this term may be used either to include all the above terms or to describe the auditing of technical aspects, for example, marketing, manufacturing, etc.).

For the purposes of this chapter, the term **performance auditing** will be used and all the above terms are included in the discussions.

4.2.2 Definition of performance auditing

Performance auditing can be summarised as those engagements contributing to the improvement of implementation and compliance with organisational policies, procedures

and regulations. Corrective and preventative actions can be taken, which improve the economy, efficiency and effectiveness of operations.

Performance audit engagements are conducted mainly with the objective to:

- 1 identify and improve poor work practices;
- 1 verify that operations are performed in compliance with policies, instructions and regulations, which results in achieving the desired effectiveness and efficiency of operations;
- 1 assist management with assessment of quality control activities adopted in the organisation; and
- 1 evaluate the effective, efficient and economic implementation of operational systems and processes in the organisation.

Performance auditing can be defined as an independent process performed to evaluate and report on the management actions implemented to ensure the economical acquisition and the efficient and effective utilisation of resources, according to pre-determined formal criteria.

The elements in the definition of performance auditing is explained below.

4.2.2.1 Management actions

Management actions pertain to all the objectives, rules and regulations set by management in order to ensure the economical acquisition and the effective and efficient utilisation of resources. These can be classified into the following broad categories:

- 1 policy procedures, which refer to defined management principles, scope or limits within which decisions can be made – for example a procurement policy;
- 1 planning procedures, which include any proactive process of setting objectives and establishing the manner in which such objectives will be achieved – for example strategic planning and budgeting;
- 1 organisational procedures, which refer to the manner in which people are structured within the organisation with regard to allocation of responsibilities, delegation of authority and reporting structures – for example having six employees in the finance department that report to the financial manager, whom in turn reports to the chief financial officer, with each level of employee having certain delegated responsibilities and powers;
- 1 co-ordination procedures, which refer to the actions taken by management to ensure that the interests of all applicable stakeholders are taken into account – for example, the human resources department and the applicable department where a vacancy exist, both form part of the recruitment process and steps should be taken to ensure that certain functions are not duplicated by both, or not performed due to

one department being under the impression that the other is performing the function; and

- 1 monitoring procedures, which refer to any independent evaluation or review management action, for example – the head of each department periodically reviews actual expenditure against the budget to ensure that over- or under expenditure does not occur.

Aspects that will be addressed during a performance audit engagement consist, amongst others, of the following:

- 1 Have policy objectives been determined and defined?
- 1 To what extent have policy and other objectives been implemented?
- 1 Are decisions based on sufficient and reliable financial and other information?
- 1 Do instructions to personnel coincide with policy, procedures and objectives and are they clearly understood by all relevant parties?
- 1 Is proper planning being executed, for example, to ensure adequate resources?
- 1 Have the costs of alternative methods been taken into account?
- 1 Do the reporting structures, span of control, delegation of authority and the allocation of responsibilities support effective and efficient organisational communication?
- 1 Have the interests of all stakeholders been taken into consideration?
- 1 Do monitoring and control activities take place regularly?

4.2.2.2 Economical

This term refers to the acquisition of resources of the applicable quantity and quality at the applicable point in time from the applicable place at the lowest possible cost (*can we do the same for less money?*).

4.2.2.3 Efficiency

This term refers to the ratio between the inputs and outputs of an organisation or function (*can we do more for less money?*). There are two possible views, namely:

- 1 maximise outputs (inputs unchanged); and/or
- 1 minimise inputs (outputs unchanged).

4.2.2.4 Effectiveness

This term refers to the extent to which set objectives have been achieved (*have we achieved our policy objectives?*). Effectiveness, with respect to performance auditing, can be divided into 12 sub-elements, namely:

- 1 **Management directive and guidance** is the measure in which the objectives and activities of an organisation are clear to the employees and are mirrored in the organisation's planning, structures, delegation of competency and the decision-making process.
- 2 **Relevancy** is the measure in which activities are meaningful in terms of the needs of various stakeholders.
- 3 **Applicability** is the measure in which the design of an activity is logical, in view of the specific objectives that must be achieved.
- 4 **Achieving of results** is the measure in which the set objectives have materialised.
- 5 **Acceptability** is the measure in which the activity fulfils the needs and requirements of those for whom it was established.
- 6 **Secondary impact** is the measure in which other important results, albeit intentional or unintentional, positive or negative, have occurred.
- 7 **Costs and productivity** apply to the relationship between costs, inputs and outputs.
- 8 **Adaptability** is the organisation's ability to adjust to change, where factors such as markets, competition, available funding or technology are raised.
- 9 **Financial results** are the linking and accounting of income and expenses, and the recording and evaluation of assets, liabilities and owner's equity.
- 10 **Work environment** is the measure in which the organisation establishes a positive working environment, offers opportunities for development and performance, and promotes association, initiative and safety.
- 11 **Safeguarding of assets** is the measure in which the most important assets such as resource provision, valuable property, key personnel, agreements and significant information records are safeguarded to protect the organisation from danger and losses that may threaten success, creditworthiness, continuity and existence.
- 12 **Monitoring and reporting** is the measure in which the most important aspects of the performance of the organisation's strengths are identified, carefully monitored and reported on.

The relationship between the three elements is illustrated in figure 4.3 by using the example of Mr X from Gauteng who has to attend a meeting in two days' time in Cape Town.

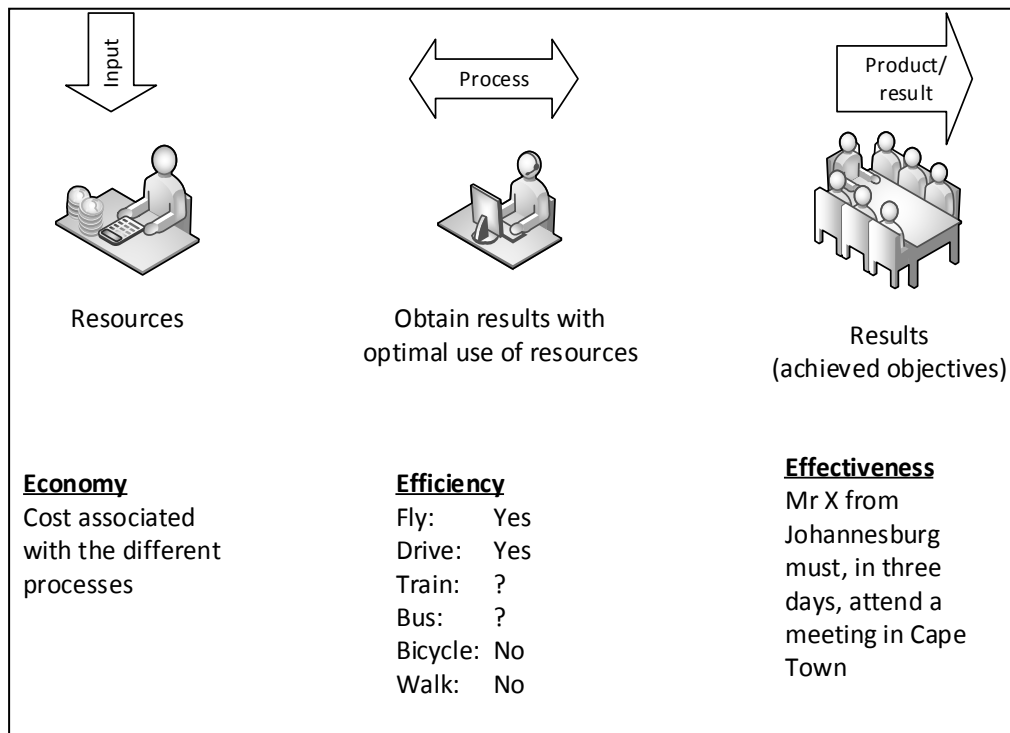


Figure 4.3: Schematic representation of the relationship between the “three Es”

Class discussion 6

Discuss the three key elements of performance auditing relating to the purchase of garden equipment for a municipality.

4.2.2.5 Resources

Resources consist of all things that are required in order to achieve objectives and mandates. Examples of resources are goods, finances, human resources, consultant services and raw materials. Wastage of resources can have a significant impact on the economy, efficiency and effectiveness of operations. Refer to table 4.2 for examples of resource wastage.

Table 4.2: Examples of wastage of resources

Resource	Wastage	Example
Material	<ul style="list-style-type: none"> • Poor planning of purchases • Insufficient storage space • Damage to material 	Perishable raw materials to the amount of R1 million were purchased without having sufficient space in the fridges – resulted in the loss of 50% of the materials
Personnel	<ul style="list-style-type: none"> • Too many personnel for a particular task • Poor planning of tasks • Productivity low due to morale 	Six machine operators were appointed where the industry norm is four
Equipment	<ul style="list-style-type: none"> • Insufficient planning of utilisation • Poor purchasing • Lack of maintenance 	Only one machine is available for the manufacturing of goods, which was last serviced five years ago
Capital/cash	<ul style="list-style-type: none"> • Accounts sent out late • Poor management of capital 	Customer accounts only forwarded one months after shipment may result in cash flow problems as well as loss of interest
Administration/control	<ul style="list-style-type: none"> • Too many/expensive control procedures • Unnecessary administration of task(s) 	Policy requires that raw materials be inspected by the quality assurance officer, the supervisor and the floor manager before production can commence.

4.2.2.6 Criteria

Criteria consists of pre-determined criteria, standards, procedures and policies, etc. Any internal audit process is performed by measuring actual activities (“what is”) against the criteria (“what should be”). Within the context of performance auditing, the criteria includes all the management actions that should be in place to ensure economy, effectiveness and efficiency. The internal auditor evaluates the results and material deviations are conveyed to the auditee in the form of an internal audit report. The development or identification of the criteria is a task that must be properly performed before the detailed field-work commences. Any later changes to the criteria may only occur with proper motivation.

In the case of financial or compliance audit engagements, these criteria and standards already exist (generally accepted accounting principles for financial audits, and policies and procedures for compliance audits). Since performance auditing is a relatively new discipline and each organisation’s performance criteria differ, few or no formal criteria are

in writing. The auditee is therefore not always aware of the extent of the audit engagement, the standards that will be measured or even the engagement costs involved.

4.2.3 Considerations

A few additional important considerations should be taken into account with regard to performance auditing. These are discussed below.

4.2.3.1 Performance auditing compared to other types of auditing

A performance audit engagement can be differentiated from a compliance and financial audit engagement in many ways. The main differences are summarised in table 4.3.

Table 4.3: Performance auditing compared to compliance and financial auditing

Aspect	Performance auditing	Compliance / Financial Auditing
Scope/objective	Aimed at evaluating economy, efficiency and effectiveness	Aimed at evaluating governance, risk management and control processes within an operational and financial environment
Time	Not necessarily based on a financial year – time span based on the objectives of the internal audit engagement	Normally based on a specific financial year or period
Standards	No formal set of standards	Standards are more formalised
Focus area	Not necessarily only focused on the activity/operation under review (broader focus)	Normally only focused on the activity/operation under review

Class discussion 7

Distinguish between compliance auditing, financial auditing and performance auditing for garden equipment for the municipality.

4.2.3.2 Role players

Internal auditors and the Auditor General perform performance audit engagements. Because this type of internal audit engagement consists of a tremendous amount of detail, it sometimes happens that, besides the normal knowledge of internal auditing and accountancy, the internal audit team should also have knowledge of other subjects, for example, systems analysis, industrial engineering, performance knowledge, computer

application and management consultancy. If necessary, the internal auditor will use consultants where expert knowledge is lacking. The internal auditor must take care not to present him- or herself as an expert in an unknown field and should at all times remain independent from the engagement.

4.2.3.3 Private sector and public sector

Performance auditing was initially developed for the public sector and the question arises as to whether it can be meaningfully applied in the private sector. As the private sector's main objective mostly relates to profit and the creation of shareholder wealth, it can be argued that the profitability of private sector organisations provides a built-in performance measure and that the execution of performance audit engagements are obsolete. However, the annual financial statements of private sector organisations are usually insufficient for measurement of especially the economy and efficiency of the organisation's operations. Although it can be argued that a private sector organisation that generates profits, is effective, it can likewise be argued that the profitability and therefore the effectiveness of such an organisation can still be improved through a performance audit engagement.

Management may benefit from the implementation of suggestions arising from a performance audit engagement and may improve its own performance. Various stakeholders may also benefit from receiving independent information on the organisation's economy, effectiveness and efficiency. Table 4.4 illustrates the applicability of performance auditing in both the private and public sectors. The examples mentioned in the table relate to the manufacturing process with regard to the private sector and the delivery of refuse removal services with regard to the public sector.

Table 4.4: Applicability of performance auditing within the private and public sectors

Private Sector		Public Sector	
Principle	Example	Principle	Example
Cost decrease (Economy)	Raw materials purchased at a lower price	Cost decrease (Economy)	Water purification chemicals purchased at a lower price
Improve production process (Efficiency)	Less input material needed to produce the same output	Improve service delivery process (Efficiency)	New chemicals allows for water purification achieved in half the usual time
Meeting the objective of producing quality	Quality of product is consistent as measured against the achievement of sales targets	Meeting the objective of delivering quality services to citizens (Effectiveness)	Producing more clean water to meet all citizens' daily demand

products (Effectiveness)			
-----------------------------	--	--	--

4.2.3.4 Advantages and disadvantages

Performance auditing focuses on the optimal use of resources without jeopardising achievement of the organisation's objectives. It should be noted that objectives differ for different organisations, even within a specific industry, for example, an upmarket retail-clothing organisation will pay more for resources (economy and efficiency) to sell quality garments (effectiveness) than a retail clothing-organisation with the motto "we dress the people". For both these organisations, performance auditing holds many advantages, such as:

- 1 The exclusion of ineffectiveness and wastage.
- 1 Limitations of traditional internal auditing are broadened.
- 1 Problem areas are identified with possible suggestions for improvement.

Although performance auditing has many more advantages than disadvantages, there are a few weak points, namely:

- 1 The conduct of a performance audit engagement may be very expensive due to:
 - the time involved; and/or
 - the use of specialists and/or consultants.
- 1 Management and the auditee may have unrealistic expectations.
- 1 Performance auditing is not always cost-effective, for example, the audit may reveal no improvement.
- 1 The audit may fail if it is not completely or correctly performed due to:
 - the limited knowledge of the internal auditor;
 - limited resources;
 - insufficient management information; and
 - few or no specified criteria.
- 1 It is difficult to measure effectiveness.
- 1 The exercise may also encounter resistance against change from the employees and/or management.

4.2.4 Process, considerations and audit techniques

Theoretically, the performance audit engagement consists of an observation of industrial and management aspects and the indication of economy, effectiveness and/or efficiency related problem areas or potential improvement for a specific area. In practice, management usually knows where the problems are or where improvements are needed, and

the performance audit engagement is performed to identify the finer details. Certain audit techniques and procedures are highlighted below.

4.2.4.1 Considerations prior to the internal audit process

Apart from the usual planning phase of a compliance-type of audit engagement, the internal auditor will have to investigate a few additional aspects before commencing with the performance audit engagement.

1 Elements of an organisation

All the elements of an organisation must be studied, researched and investigated before the internal auditor can determine the approach to follow. The chief audit executive will usually investigate the elements on an *ad hoc* basis and all future performance audit engagements will be modelled on the information. If an element(s) change(s), the audit committee should inform the internal audit activity.

The most important elements include:

- (a) vision and mission – what does the organisation wish to achieve;
- (b) strategy – transforming vision into reality (*how* does the organisation plan to materialise the vision?), thus objectives and plans by which to achieve goals;
- (c) styles – the method of performing activities, for example, management style;
- (d) structure – how the organisation is structured to implement strategy, namely, simplicity, clear identification of objectives and tasks, individual responsibility, authorisation and accountability, divisions, size and location of field sites;
- (e) systems – the method by which daily activities are planned, organised, controlled and managed;
- (f) general policies under which the organisation is operating;
- (g) general description of problem areas;
- (h) personnel – ways in which people operating the system function, for example, recruitment, training, performance measurement and supervision;
- (i) expertise – utilisation of knowledge, skills and competencies;
- (j) nature, significance, location and administration of assets; and
- (k) type of system – fixed (usually predictable) or adaptable (unpredictable and requiring continuous monitoring of variables).

1 Identification of focus areas

The first step is to identify auditable business focus areas, such as departments, divisions, branches, processes, functions, activities, projects, programmes, risks, etc. Performance audit engagements may examine a number of different areas of an

organisation and there are steps that would indicate the choice of the type of audit approach or focus areas. A start would be to select focus areas by concentrating on areas where (not a complete list):

- planning is poor;
- poor performance and high cost exist;
- no or little internal evaluation takes place;
- the legislative body, counsel or public have a specific interest;
- an internal audit engagement has not been performed in recent times;
- resources are utilised poorly;
- delegation is either extraordinary restrictive or exhibits too great a degree of latitude;
- results of previous internal audit engagements indicate deficiencies;
- services have been expanded or new ones are being rendered;
- level of budgeted and actual expenditure is material; and
- materiality and risk are high.

Class discussion 8

Identify focus areas for the purchasing of garden equipment for the municipality.

The following is a guideline as to the steps to follow when identifying a focus area:

- (a) The relevant management team must identify the focus areas. However, the internal auditor may be asked to assist in this regard, especially when management is unsure where the most value will be added.
- (b) A preliminary investigation must be performed in order to determine the suitability of the focus area and to establish an estimation of the costs involved.
- (c) Other factors that must be considered include:
 - accessibility of the personnel of the auditee;
 - accessibility to relevant information;
 - other resources needed; and
 - management's co-operation.
- (d) The staffing of the project must be carefully planned. Personal skills and characteristics required by internal auditors specifically include:
 - knowledge, skills and competencies related to the internal audit engagement;
 - interviewing and communication skills;
 - diplomacy and interpersonal skills;
 - industry knowledge;
 - knowledge and understanding of performance audit techniques; and

- analytical and inquiring attitudes.
- (e) Aspects that must be discussed before the project is accepted include:
 - the problem that must be addressed;
 - the areas that must be investigated;
 - the timeframe of the internal audit engagement;
 - the personnel that may be approached for information and assistance; and
 - the form of reporting (progress and final) and parties to be informed.
- (f) The following general internal audit aspects must be considered and agreed with the auditee:
 - the scope of the audit engagement;
 - the intended degree of assurance; and
 - reporting considerations.
- (g) Once the criteria and standards to be measured have been determined, it must be documented and management's agreement must be obtained.

1 Discussion of the audit costs and support from management

The internal audit engagement costs must be estimated on the basis of the preliminary investigation. Since this type of internal audit engagement is unpredictable, it is possible that it could be much more expensive than a compliance or financial audit engagement. Comprehensive information must be made available to management who have to provide final approval to proceed with the engagement.

Without strong support and co-operation from management, it will not be possible to complete a performance audit engagement successfully. The ideal is that the line management in a particular section or department must identify the areas that must be investigated, as they are usually aware of problem areas or areas that could be improved. The primary purpose of this step is to ensure that both the internal auditor and management know what is expected during the execution of the engagement.

4.2.4.2 Audit techniques

Although most of the audit techniques that are used in other forms of internal audit engagements (refer to the textbook *Internal Auditing: An Introduction*) can also be used when conducting a performance audit engagement, there are a few additional specific techniques. These will be discussed briefly.

1 Audit profile triggers

During the planning phase, internal auditors make use of audit profile triggers to assist them in identifying relevant aspects that must be investigated during the engagement. Audit profile triggers consist of a list of relevant aspects with regard to a focus area. The

objective of audit profile triggers is to align the audit objectives and procedures to the objectives of the focus area. Parties that may be involved during the composition of such a list are senior management, line management, consultants and employees. Table 4.5 provides a proposed framework of audit profile triggers. The examples used for each trigger relate to the manufacturing section of a private sector textile manufacturing company.

Table 4.5: Framework of audit profile triggers

Aspect	Explanation	Example
Organisation	How the function is organised	Factory has three supervisors and sixty machine operators
Objectives	Objectives of the function	To manufacture enough textile stock to meet customer demands
Authority	How authority is delegated	Each machine operator reports to his/her allocated supervisor
Accountability	Who is accountable to whom and for what	Supervisors report to factory director

Aspect	Explanation	Example
Resources	The resources provided for the function	Six textile manufacturing machines
Instructions	Procedure notes, system manuals, operating instructions	Manufacturing processes are documented in a procedure manual
Compliance	Adherence to procedures and operating instructions	Supervisors ensures compliance to procedure manual and violations are not tolerated
Monitoring	Systems and procedures for testing and measuring performance	Number of products manufactured per day
Control	Actions implemented to keep to planned activities	Machines are checked and serviced regularly
Effectiveness	Achieving targets, objectives and goals	Measure actual finished products against manufacturing targets
Efficiency	Optimum use of resources	Determine the optimal number of machine operators required to produce manufacturing targets
Security	Protection against risks	Physical access to the factory is limited to authorised personnel only
Legality	Compliance with obligations imposed by law	Minimum wages and basic conditions of employment with regard to machine operators
Risks	Risks related to the function	Machinery not functioning properly
Opportunities	Further possibilities for contributing to corporate objectives	Investigate the availability of new enhanced manufacturing technology

Idea: *Internal Audit, Venables and Impey*

1 Investigations

An investigation is the gathering of information from individuals. It may be used during the planning phase (identify areas that must be included in the engagement) or the performance phase (gathering of evidence). Each investigation will therefore be unique with specific characteristics. Depending on the nature of the internal audit engagement, investigations may be conducted on individuals from different levels of the organisation, internal or third parties, and operational or administrative personnel. Examples include employees, suppliers, clients or related businesses. Investigations may assume various forms (refer to table 5.6 for a few examples).

Table 4.6: Comparisons between types of investigations

Criteria	Written (post)	Telephonic	Interview
Cost involved	Low	Average	High
Coverage obtained	High	Average	Low
Reaction rate	Low	High	High
Flexibility	Low	High	High
Administration time	Quick	Average	Slow
Difficulty	Low	Average	Average

Irrespective of the method used, the information must be compiled in writing and a conclusion, and if applicable, a finding must be constructed.

1 Analysis

Analyses may be used to either identify problem areas or serve as proof of uneconomical, inefficient and ineffective activities. Some of the analyses discussed below are complicated and the internal auditor may deem it necessary to use a specialist to assist in the process.

- **Value analysis** consists of the process by which unnecessary costs are identified.

Example: The factory rented for the manufacturing process is very large and space is not utilised optimally. A smaller factory will be acceptable. The difference in rent is a form of waste.

- **Functional cost analysis** consists of the identification of expenses according to a specific function (area of work). It may be linked to performance, in contrast with most organisations where expenses are linked to obligations, for example, employees, material and overheads.

Example: It takes a machine operator three minutes to position the fabric correctly on the machine. The performance of each employee as well as the section as a whole may be measured against this standard.

- **Cost reduction programmes** consist of the identification and evaluation of potential savings against the cost of bringing about these savings.

Example: Raw materials purchased are checked by a quality assurance officer and faulty products are removed before manufacturing commences. Faulty raw

materials identified and returned to the suppliers amounted to R923 000 for 20XX and the salary of the quality assurance officer is R470 000 per annum.

- **Input-based studies** consist of measuring the extent to which scarce resources are used to achieve objectives by comparing inputs with outputs. The main purpose of this form of analysis is to measure efficiency.

Example: The number of machine operators (60) is compared to the number of products manufactured per day (120). The efficiency ratio is then determined at 60:120 or 1:2.

- **System-based studies** entail the studying of organisational or functional structures, personnel and system procedures to provide management with sufficient and accurate information in order for them to make decisions. The investigation consists of the in-depth study of the following elements:
 - nature of each activity;
 - the costs;
 - the organisational or functional structure;
 - the performance of procedures;
 - individual tasks and work load of personnel;
 - documentation of activities; and
 - productivity of the function or individuals.
- **Inter-organisational comparisons** are the use of acceptable scientific methods and information to make comparisons with other similar organisations.

Example: Number of personnel required to operate a specific machine. This information is compared to that of other similar organisations that use the same machinery.

- **Objective analysis** is the technique used to determine whether the policy of the organisation has been converted to operational objectives so that results may be compared with the planned organisational objectives and plans.

Example: Policy of the maintenance of machinery

Operational objectives:

- To ensure that the functional operation of machinery is reviewed at least once a week

- Planned regular servicing of machinery according to the expected life span of each machine
- System review** is the process by which operational procedures are continuously revised to determine whether they are relevant and suitable to achieve the objectives.

Example: The manufacturing processes are continuously reviewed to determine whether they are still relevant in terms of the organisational objectives.

Class discussion 9

With regard to the purchase of garden equipment for the municipality, identify three techniques that can be used by the internal auditor during the performance audit process.

4.2.5 Planning of a performance audit engagement

Once the focus area has been decided on, it should be decided how to approach and plan the internal audit engagement. As with any other internal audit engagement, the IIA *Standards* state that internal auditors must plan each internal audit engagement (refer to the textbook *Internal Auditing: An Introduction*). The only difference between compliance or financial audit engagements and a performance audit engagement is the point of departure when developing internal audit objectives and criteria. Several approaches may be used. The most commonly used approaches are briefly discussed below.

4.2.5.1 The elements of the definition as point of departure

The approach that is used most is that of compliance to the three basic elements of performance auditing, namely, economy, efficiency and effectiveness (refer to figure 4.2 for a schematic representation of the elements of the definition). Table 4.7 provides an explanation of the three elements with reference to the leave system of an organisation.

(a) Economy

This refers to the terms and conditions under which an organisation obtains its resources, including personnel, material and fixed assets. An economical operation obtains the above resources at applicable quality and in the right quantity at the best possible overall costs.

(b) Efficiency

This is the relationship/ratio between goods supplied and services rendered, and the resources used to deliver them. An efficient operation:

- delivers the maximum output for a given amount of resources; or
- uses a minimum amount of resources (input) for a given output.

The underlying objective is therefore the increase of productivity and the decrease in unit costs.

(c) Effectiveness

Effectiveness refers to how well an entire organisation, a programme, or an activity achieves its set objectives, defined goals or other intended effects.

Table 4.7: The three “Es” for a manufacturing process

Economy	Efficiency	Effectiveness
<ul style="list-style-type: none"> • Machinery • Number of machine operators • Information technology • Raw materials 	<ul style="list-style-type: none"> • Usage and maintenance of machinery • Manufacturing process • Optimal use of information technology • Maximum finished products (output) for given raw materials (input) 	<ul style="list-style-type: none"> • Profit • Production targets • Policy objectives • Number of faulty finished products <p>Information technology improves operations</p>

4.2.5.2 The task as point of departure

This approach is based on the fact that any activity or task that is performed in an organisation consists of four required elements, namely personnel, items, equipment and documents. These elements are necessary in order for the organisation to properly perform its activities. When developing engagement objectives, the internal auditor focuses on each of these four elements. The four elements are illustrated in figure 5.4. Table 5.8 outlines the *task* in respect of the manufacturing process.

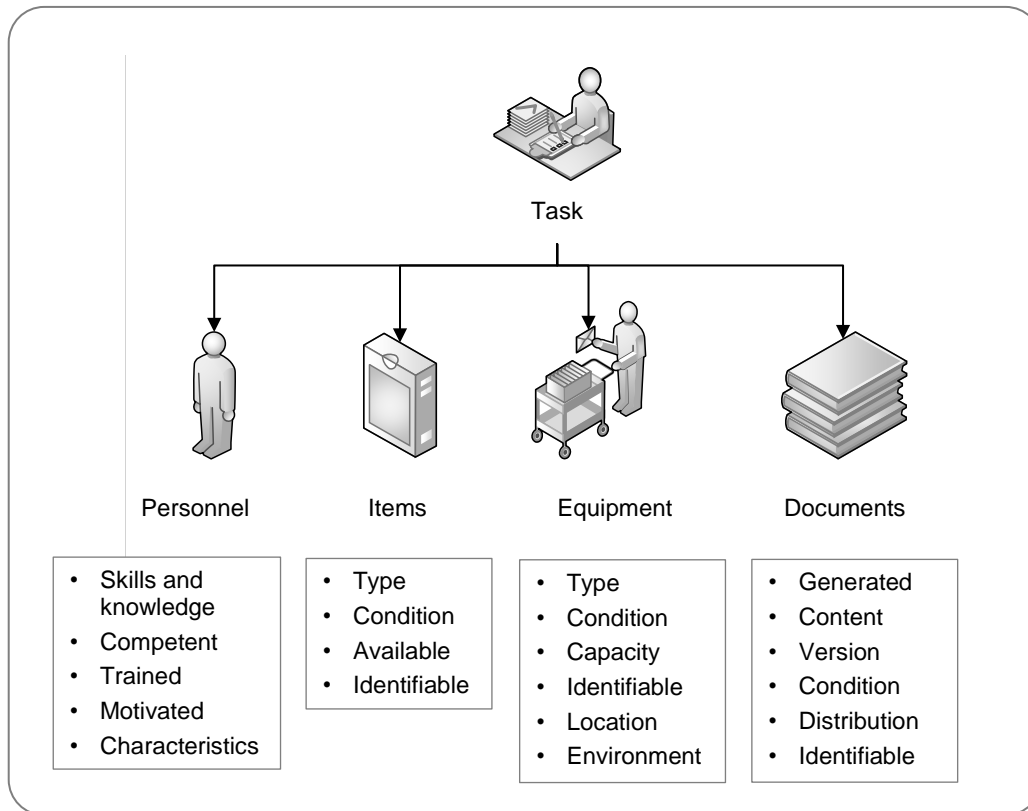


Figure 4.4: Schematic presentation of the four elements of a task

(a) Personnel (human resources)

Appropriately qualified personnel must be appointed for the task. Where necessary, or where circumstances change, for example, conversion to a new computerised system, the personnel must be properly trained. The employee who is responsible for the performance of a specific task must be identified. He or she must have the correct competencies for the task and must be appropriately motivated in order to ensure that outputs will be of the highest quality.

(b) Items

This is a comprehensive term and refers to consumable items, raw material and the final products that have been manufactured. For any task that must be performed, the correct quantity of items of the correct type must be available. These items must be stored in such a manner that they will be in an acceptable condition for when

they are required. All items must be identifiable in some or other manner, whether it is with a label on the item itself or on the container, or by means of documentation accompanying the item.

(c) Equipment

The correct type of equipment with the required capacity for the performance of the task, must be acquired. The equipment must be in the correct condition, which implies that an appropriate maintenance programme must be followed. Equipment must be properly identifiable, unless the nature of the equipment leaves no doubt as to the identification thereof. The equipment must also be in the correct place at the correct time. Applicable environmental factors, for example, lighting, the absence of dust, vibrations, noise, etc. for the effective use of the equipment, must be present.

(d) Documentation

Documents are a written medium by which information is conveyed. A document describes, defines, specifies and reports on activities, the requirements to be able to perform the activities and the results of the activities. Although the term “documents” is used, it implies that drawings, procedures, specifications, computer programs, accounting records and source documents such as invoices and microfilms, are included.

Documents that are generated must contain the correct information and must be presented in the correct condition. “Correct information” implies that documents must have the information required by the party to whom the document is handed. It should, however, be borne in mind that too much or unnecessary information may cause the document to lose its purpose or effectiveness. “Correct condition” implies that documents must be readable and must be stored and handled in a proper manner. The documents must be distributed to the correct individuals and must be appropriately identified, by indicating what each document is about and what it is related to.

Table 4.8: Four tasks for the manufacturing process

Personnel	Items	Equipment	Documents
<ul style="list-style-type: none"> • Labour input • Labour output • Competency/skills • Training 	<ul style="list-style-type: none"> • Raw materials • stock control • availability • usability • supplier • Finished products 	<ul style="list-style-type: none"> • Machinery • maintenance • optimal use 	<ul style="list-style-type: none"> • Production reports • distribution • exceptions • Productivity reports

4.2.5.3 Performance indicators as point of departure

Performance indicators are quantified measures that have been designed to reflect the resource input with the output. This is explained by means of examples in table 4.9 reflecting on the leave system of an organisation.

Table 4.9: Performance indicators for the leave system

Indicator	Example
Costs	Salaries/wages of machine operators Electricity used Maintenance costs
Productivity	Number of finished products per employee Number of finished products per machine
Time objectives	Number of finished products manufactured per hour
Volume	Number of finished products manufactured per day
Quality	Number of customer complaints per month Number of returned goods
Demand	Number of finished products required per month to meet customer demands
Availability	Number of instances where stock-outs occurred Number of orders that could not be processed due to stock-outs

Class discussion 10

For the purchasing of garden equipment for the municipality, compare the three approaches that can be followed to plan a performance audit engagement.

4.2.6 The performance audit process

It is important to note that although some guidance is available, no formal performance audit standards and/or procedures exist. However, some aspects of the internal audit process will also be applicable to a performance audit engagement. For example, any performance audit engagement will most likely have a planning phase, an execution phase and a reporting phase. It is difficult to compile a complete performance audit process; therefore the discussion below is merely aimed at providing some guidelines.

4.2.5.1 Planning phase

During the planning phase the specific focus area as well as the scope of the internal audit engagement is determined and discussed with management. This will normally be in the form of a contact meeting and engagement letter. The internal auditor should obtain sufficient knowledge of the client and the focus area with regard to the economical acquisition of resources and the effective and efficient utilisation of resources. Knowledge sources depend on the focus area and scope of the internal audit engagement, but mostly include documentary sources as well as testimonial sources. Testimonial sources are mostly based on interviewing the key personnel of the focus area.

Documentary knowledge sources include *inter alia*:

- 1 the website of the organisation;
- 1 strategic documents, such as the vision and mission of the organisation, strategic plan, business plan and operational plans;
- 1 budgets and budget reports;
- 1 annual reports and financial statements;
- 1 organogram and applicable delegations of authority documentation;
- 1 policies and procedure manuals pertaining to the focus area;
- 1 procurement policies and procedures;
- 1 system descriptions; and
- 1 operational reports.

Based on these knowledge sources, the internal auditor identifies symptoms relating to uneconomical, inefficient and/or ineffective acquisition and/or utilisation of resources. A symptom can be defined as the physical indication of something that is wrong. In the context of performance auditing, a symptom is therefore defined as the physical indication that a problem might exist with regard to the economical acquisition of resources and/or the effective and efficient utilisation of resources.

Example – effectiveness: If the profit targets of the manufacturing process were not achieved, it can be described as an effectiveness symptom.

Example – efficiency: If the ratio between the number of machine operators and the number of finished products manufactured are below the industry standard, it can be described as an efficiency symptom.

Example – economy: If raw materials were not acquired at the lowest possible cost, it can be described as an economical symptom.

The internal auditor further investigates to determine the cause of the identified symptoms. The cause of a symptom can be defined as an inadequate management action

(refer to management actions – section 4.2.2.1). The identified symptoms and causes will be further investigated during the execution phase.

The last part of the planning phase involves the formulation of audit criteria (refer to section 4.2.2.6), obtaining approval for the criteria and drafting an engagement work programme. The following sources can be used, amongst others, to determine criteria:

- 1 **Symptoms and causes identified in the planning phase** – The symptoms identified during the planning phase can be translated into auditable criteria. For example, raw materials that were not acquired at the lowest possible cost (symptom) caused by inadequate procurement policies that do not prescribe a quotation process (cause) can be translated into an audit criterion as follows: “The procurement policy should adequately prescribe the circumstances in which a quotation process should be followed.”
- 1 **Historical data** – This can be used to determine whether certain aspects of an organisation have improved or deteriorated. The advantage of this method is its simplicity. However if, in the past, the organisation was not effective, economical or efficient, simply comparing the current state to the historical information will not yield reliable results.
- 1 **Objectives and policy developed by management and budgets** – Management may determine certain objectives or norms. The applicable section or division within the organisation should strive towards the achievement of these objectives and policies.
- 1 **Sound, recognised management principles** – Certain management principles that could be considered logical and applicable for the organisation may be applied for the compiling of criteria, for example, authorisation for the purchasing of fixed assets above a certain amount may only occur via the committee, after three quotations have been obtained.
- 1 **Comparative performance measuring** – There may be several similar sections or departments within or outside the organisation, for example, where an organisation has three distribution plants across the country and comparable information is developed for these three plants.
- 1 **Operational standards** – These can be determined by specialists and/or the internal auditor. This is the most effective way in which to perform the engagement but it is time consuming and also expensive. Standards within the industry may also be used for example the International Organisation for Standardisation (ISO) standards. A certain set of standards which are applicable for the industry may either be researched or developed by the internal auditor or may be obtained from certain institutions such as the Central Statistical Services, stakeholders and the Global Audit Information Network (GAIN) of the IIA.

- 1 **Discussions and agreements** – The specific criteria that must be present are discussed and agreed upon. This negotiation usually takes place between the internal auditor and the management of the focus area being audited.
- 1 **Other** sources include:
 - contractual terms;
 - expected future performance;
 - authoritative literature;
 - pronouncements of professional organisations;
 - legislation;
 - policies and procedures of an organisation; and
 - common sense.

The characteristics of engagement criteria should (at least) be:

- 1 generally acceptable (internal and external);
- 1 clear to all parties;
- 1 valid and consistent according to applicable standards;
- 1 current;
- 1 achievable for all parties involved;
- 1 easily available or determinable; and
- 1 flexible.

4.2.6.2 Execution phase

The execution phase involves the following three activities:

- 1 performance of the engagement work programme and testing of the approved audit criteria;
- 1 follow-up on the symptoms and causes identified in the planning phase (determine the effects of the symptoms); and
- 1 identification of new symptoms and causes.

4.2.6.3 Reporting phase

During the reporting phase, the symptoms, causes and effects are documented along with corresponding recommendations as audit findings in a formal internal audit report. The report consists *inter alia* of an introduction, objective and scope discussion, as well as the findings relating to economy, efficiency and effectiveness. The report is firstly submitted in draft format to the appropriate level of management in order to allow for management comments. Once these comments have been documented and management

has agreed upon the measures and actions that should be implemented, the report is finalised. An example of a performance audit finding is discussed in table 4.10.

Table 4.10: Example of a performance audit finding pertaining to the manufacturing process

Element	Example in manufacturing process
Symptom:	The procurement of raw materials is not economical, as these materials are not acquired at the lowest possible costs. Raw materials have been purchased from the same supplier for the last ten years without obtaining any additional quotations.
Cause:	Inadequate procurement policy, as the policy does not require a formal three quotation process for any purchases.
Effect:	Waste of financial resources, as other suppliers which may provide raw materials of the same quality at a lower cost, are not considered for purchases.
Recommendation:	The procurement policy should be reviewed and updated to prescribe that a three quotation process should be followed for all purchases.

Class discussion 11

It was determined that lawnmowers bought were not used by the municipality due to employees not possessing valid driver's licences as these lawn mowers are classified as small vehicles. As a result, these lawnmowers are being stored in a warehouse while the lawns of the municipality's public parks remain unattended to.

For this example draft the reporting elements for each of the *Three E's*.

4.3 Questions

QUESTION 1

You are the new chief audit executive (CAE) at BuildIT Construction Limited (hereafter referred to as BuildIT), a medium-sized construction company. You were appointed recently, as the company only established an internal audit activity two months ago. You have obtained the annual risk assessment for strategic purposes which was finalised shortly before your appointment. After you reviewed the risks that were identified and ranked, you discovered the company's major risk areas pertain to customer service, revenue management and the safety of construction workers.

Based on the strategic risk assessment the audit committee approved that internal auditing commence the annual internal audit plan with a performance audit engagement on the revenue management processes.

BuildIT offers the following two major services to its clients:

- Service Programme 1: Construction staff members are placed with other construction companies and individuals that do not employ their own staff members. These other companies or individuals are then billed with the daily charge-out rate of a specific staff member.
- Service Programme 2: Clients can also approach BuildIT to manage the construction of entire building projects.

One of the internal auditors in your department obtained the following information with regard to Service Programme 1:

- BuildIT employs 40 construction workers on a full-time basis. Each construction worker receives a monthly salary of R4 500.
- You requested productivity reports from the revenue manager as well as the construction manager, but they replied that such reports do not exist. Therefore, the following figures were obtained from the human resources department for the last 12 months:

Employee Number	Average days worked per month	Employee Number	Average days worked per month	Employee Number	Average days worked per month	Employee Number	Average days worked per month
001	4.5	011	15.8	021	17.2	031	8.2
002	15.0	012	4.2	022	14.1	032	10.1
003	12.1	013	7.0	023	3.5	033	9.5
004	16.5	014	8.4	024	7.3	034	3.2
005	13.1	015	10.5	025	14.1	035	4.3
006	11.0	016	20	026	5.9	036	3.2
007	9.5	017	17.2	027	7.0	037	6.2
008	16.6	018	13.1	028	7.3	038	17.1
009	15.2	019	12.0	029	14.3	039	9.0
010	13.1	020	14.1	030	16.2	040	13.5

- Construction workers are charged out to clients at R500 per day.
- You obtained the average days worked by construction workers in the industry from the following three competing companies:
 - Company 1 – 16.5 days
 - Company 2 – 18.1 days
 - Company 3 – 14.4 days

One of the internal auditors in your department obtained the following information with regard to Service Programme 2.

- BuildIT is currently busy with the following eight construction projects:

Project Number	Project Description	Project Location	Project Amount
001	Construction of the Joost van der Westhuizen rugby stadium.	Next to the Bronkhorstspuit dam.	R9,9 million
002	Construction of the Jubilations Mall.	Soweto.	R8,9 million
003	Construction of the St Lucia estuary boathouse.	St Lucia Estuary, KwaZulu- Natal.	R1,8 million

Project Number	Project Description	Project Location	Project Amount
004	Construction of two bridges over the Vaal river.	Sasolburg and Vereeniging.	R3,1 million
005	Construction of New Kids Primary School.	Nelspruit.	R2,8 million
006	Construction of Willow Hill Office Park.	Sandton.	R6,5 million
007	Construction of the new Tshwane power station.	Brooklyn, Pretoria. Next to the Austin Roberts Bird Park.	R8,2 million
008	Construction of the Finding Nemo Aquarium.	North Beach, Durban.	R1,2 million

YOU ARE REQUIRED TO:

- 1 Discuss the 5 elements of economy by relating the elements to the recruitment of construction workers.
- 2 Provide 1 example of an efficiency ratio from the case study.
- 3 Formulate 1 performance audit reporting item (finding) relating to the efficiency of the construction workers' revenue management process (including a recommendation).

QUESTION 2

In view of the fact that the provision of housing is one of the critical priorities of the South African government, the Auditor General has decided to conduct a performance audit on the provision of housing at a provincial Department of Housing covering the period 1 January 20X9 to 30 June 20X12. The national Department of Housing oversees the provincial departments in the various provinces.

You are the internal audit manager responsible for the performance audit engagement to be conducted by the Auditor General and decide to conduct research on the housing environment by reviewing the following:

- 1 the annual reports of the national Department of Housing for the 20X9/20X10, 20X10/20X11 and 20X11/20X12 financial years;
- 1 the annual reports of the provincial Department that is chosen;
- 1 the progress reports by Mr Ntshangase, the executive director for the housing programme at the provincial Department;

- 1 the strategic plan for the period 20X10 to 20X12 of the provincial Department; and
- 1 the minutes of the executive management meetings of the provincial Department.

Perusing the annual reports for the national Department of Housing, you learn that in 20X3 the provision of housing to the poor was identified as one of the main priorities of the government. During the period 20X3 to 20X7 approximately 500 000 houses were built nationally and during the following four years approximately 1.2 million houses were built.

According to the annual reports of the provincial Department the mandate of the Department is *to provide access to housing via the provision of land, tenure, services and houses*. To obtain more background on the mandate of the provincial Department, you decide to interview Mr Ntshangase. He explains to you that a so-called Peoples Housing Project (PHP) has been established to support the first three programmes in the strategic plan, namely Formal Housing, Incremental Housing and Social Housing.

The PHP is a joint project between the provincial government and the community in that members from the community can apply for subsidies from the Department but have to contribute to the building of their houses by either making a monetary contribution or by making their services available during construction. Mr Ntshangase referred to the latter as “sweat equity”. The success of the PHP is measured in terms of the contribution that it makes to the first three sub-programmes.

The PHP has the following objectives:

- 1 to enhance the capacity of communities and local authorities through participation in the PHP;
- 1 to promote the availability of affordable housing tenure and essential services;
- 1 to promote integrated development; and
- 1 to improve the relationship with customers and create a platform for civil society participation.

After interviewing Mr Ntshangase, you obtain a brochure that explains that the PHP is administratively supported by the local municipalities through Housing Support Institutions (HSIs), and by the community through Housing Support Centres (HSCs), which have been established to assist communities in obtaining building materials. Analysis of the management meeting minutes reveals the following challenges with regard to the PHP:

- 1 a lack of capacity at the primary stakeholders, namely the municipalities; and
- 1 a lack of responsibility on the part of the HSCs.

You review the PHP project files and notice several service level agreements between the provincial Department, the HSIs and HSCs for the Formal Housing sub-programme, but not for the other two sub-programmes. Only a few progress reports are included as part of the project documentation.

A search of newspaper articles identifies the following concerns regarding the PHP:

- 1 the poor construction quality of the houses;
- 1 the lack of sufficient monitoring of the success of the various programmes;
- 1 the complex and lengthy planning process;
- 1 the lack of funding for subsidies;
- 1 the inadequate and incorrect consumer information; and
- 1 the complex, slow and bureaucratic subsidy process.

The strategic plan for the provincial Department indicates the following:

Sub-programme	20X10		20X11		Objective 20X12	
	Objective	Achieved	Objective	Achieved	Objective	Achieved
Formal housing & stands	53 000	47 000	55 000	47 200	57 000	37 893
Incremental housing	21 350	20 300	21 500	20 500	21 600	12 744
Social housing	1 650	658	1 700	1 500	1 900	1 159
Rental accommodation	1 500	1 200	1 550	1 500	1 900	1 646
Social housing institutions	5	3	6	5	7	6

Formal housing

According to the Annual Report for the 20X12 financial year the provincial Department underperformed in terms of service delivery. Instead of 57 000 only 37 893 stands and houses were built.

Incremental housing

Analysis of the strategic plan reveals that the objective of incremental housing is to strengthen and accelerate the PHP. However, according to the 20X12 Annual Report, incremental housing underperformed by 59%, with a budget output of 21 600 units and only 12 744 actual units.

Social housing

Social housing deals with the delivery of houses through the institutional housing subsidy. The programme's overall performance for the 20X12 financial year was only approximately 39% of the planned targets. The lack of performance was largely due to:

- the limited human resource capacity;
- a lack of support from the social housing institutions; and
- delays with implementation by local authorities as a result of:
 - insufficient capacity; and
 - the feasibility studies to be performed for all new procurement policy projects to identify constraints, determine the risks related to these constraints and to address the delays during the planning and design stage of the projects.

The Medium Term Expenditure Framework (MTEF) included the following:

Sub-programme	20X10 Rm		20X11 Rm		20X12 Rm	
	Budget	Actual	Budget	Actual	Budget	Actual
Formal housing	126	126	126	75	126	95
Incremental housing	110	99	110	112	108	116
Social housing	50	50	54	54	56	75
Rental accommodation	1 166	1 166	1 123	1 123	1 167	1 176
Social housing institutions	50	50	75	45	99	76

Analysis of the MTEF highlights that there is:

- under-spending of the budget as indicated above, possibly supporting the fact that there is a lack of capacity to implement the programme;
- a lack of consistency in annual performance, possibly indicating instability of the programme in terms of capacity and support; and
- overspending of the budget for the incremental housing sub-programme in 20X11 and 20X12, possibly indicating poor budgetary control or insufficient funding. Although this problem appeared for the first time in 20X11, it was not addressed in 20X12.

You requested business plans for the various sub-programmes but were only able to obtain proposals and approved proposals.

YOU ARE REQUIRED TO:

- 1 Discuss the elements, as well as the relationship between these elements, of the input-output model to performance auditing.
- 2 Discuss how compliance and performance auditing are related.
- 3 Discuss the main difference between compliance and performance auditing.
- 4 Discuss the relationship between management measures and causes.
- 5 Identify one effectiveness symptom from the case study, discuss the effectiveness of the housing programme, and support your answer with sufficient reasoning.
- 6 Formulate one possible cause for each of the management measure categories related to the symptom identified in (5) above.
- 7 List the five attributes of economy and provide one appropriate practical example of each based on the case study.

