



Business & Computing Examinations (BCE)

LONDON (UK)

Efficiency and Effectiveness

Efficiency is "the degree of economy with which the process consumes resources; especially time and money". Effectiveness is "how well the process actually accomplishes its intended purpose, mainly from the customer's point of view".

In short, efficiency is doing things right, and effectiveness is doing the right things.

Efficiency and effectiveness can both improve speed, on-time delivery, and various other process baselines.

Some **process efficiency measures** are:

- cycle time per unit, transaction, or labour cost;
- queue time per unit, transaction, or process step;
- resources (cost, labour) expended per unit of output;
- cost of poor quality per unit of output;
- percent of time items were out of stock when needed;
- percent on-time delivery; and
- inventory turns.

Some **effectiveness measures** are:

- how well the output of the process meets the requirements of the end user or customer;
- how well the output of the sub process meets the requirements of the next phase in the process (internal customers); and
- how well the inputs from the external suppliers meet the requirements of the process.

By contrast, **measures of ineffectiveness** include:

- defective products;
- customer complaints;
- high warranty costs;
- decreased market share; and
- percent of activities that customers perceive to be non-value-added.

Some **measures of adaptability** are:

- the average time it takes to respond to special customer requests compared to routine requests;
- the percent of time special customer requests are denied compared to the denial of routine requests;
- the percent of special customer requests that have to be escalated to higher levels of management compared to the escalation of routine requests; and
- the capability to respond to product changes versus process changes.

We should establish baselines for efficiency, effectiveness, and adaptability metrics. In other words, we should determine our current performance levels. Then we should benchmark our best programmes/services and set aggressive goals or targets for improvement. Finally, we should determine root causes of problems and eliminate them or minimise their impact.

Examples of concepts and tools BCE can use are:

- statistical process control, which measures variability in a process;
- trend charts, which measure performance over time;
- pie charts, which depict measurements compared to each other;
- process flow charts, which allow staff to quickly identify serial versus simultaneous processes, items which do not add value (like too much time spent on unimportant issues, unnecessary travel and handling, long queues, etc.), and sub-processes that do not meet the needs of internal customers.

In addition to process concepts and tools, we should learn interrelationship concepts such as teamwork and communication as well as leadership skills in order to streamline relationships as well as processes and activities.

Internal perspective seeks to identify:

- How well the business is performing.
- Whether the products and services offered meet customer expectations.
- The critical processes for satisfying both customers and shareholders.
- Activities in which the firm excels?
- And in what must it excel in the future?
- The internal processes that the organisation must be improved if it is to achieve its objectives.

This perspective is concerned with assessing the quality of people and processes.

Potential goals for the internal perspective include:

- Improve core competencies
- Improvements in technology
- Streamline processes
- Performance excellence
- Quality performance
- Inventory management
- Quality
- Motivated workforce

Metrics that could be used to measure success in relation to the internal perspective:

- Efficiency improvements
- Reduction in costs
- Reduced waste
- Improvements in morale
- Increase in capacity utilisation
- Increased productivity
- Percent (%) defective output
- Amount of recycled waste
- Amount of reworking