

Topic- Stages of Control

Depending on the stages at which control is exercised, it may be of three types:

- (1) control of inputs that are required in an action, known as feedforward control:
- (2) control at different stages of action process, known as concurrent, real-time, or steering control: and
- (3) post action control based on feedback from the completed action, known as feedback control

Feedforward Control. Feedforward control involves evolution of inputs and taking corrective action before a particular sequence of operation is completed. Thus. It attempts to remove the limitations of time lag in taking corrective action. Feedforward control monitors inputs into a process to determine whether the inputs are as planned. If inputs are not as planned corrective action is taken to adjust the inputs according to the plan so that the desired results are achieved within the planned inputs. It is just like hunting a duck. A hunter will always aim ahead of a duck's flight to compensate for the time lag between a shot and a hoped-for hit. To be effective, feedforward control should meet the following requirements:

- 1 Thorough and careful analysis of the planning and control system must be made and the more important Input variables identified.
2. A model of the system should be developed
3. The model should be reviewed regularly to see whether the input variables identified and their relationship still represent realities.

4. Data on input variables must be regularly collected and put into the system
5. The variations of actual input data from planned inputs must be regularly assessed, and their impact on expected results is evaluated.
6. Action must be taken to show people problems and the measures required to solve them.

Concurrent Control. Concurrent control is exercised during the operation of a programme. It provides measures for taking corrective action or making adjustments while the programme is still in operation and before any major damage is done. In the organisational context, many control activities are based on this type of control, for example, quality control during the operation, or safety check in a factory. Here, the focus is on the process itself. Data provided by this control system is used to adjust the process.

Feedback Control. Feedback control is based on the measurement of the results of an action. Based on this measurement, if any deviation is found between performance standards and actual performance, the corrective action is undertaken as shown in Figure 27.2. The control aims at future action of the similar nature so that there is conformity between standards and actuals. This is required because, sometimes, feedforward or concurrent control is not possible to apply, for example, many personal characteristics of an individual which go into behavioural processes are not measurable, hence feedforward control is difficult to apply. In the business organisations, top management control is mostly based on feedback. To make feedback control effective. It is essential that corrective action is taken as soon as possible.