In this chapter the researcher has made a modest attempt to discuss the definitions and broad concepts of control mechanisms, management control and strategic control.

CONTROL / CONTROL SYSTEM

Ackoff (1970) describes control as, "the evaluation of implementation decisions, including decisions to do nothing". Dalton (1971) argues that "control implies 1) there is some standard or set of standards, 2) performance is compared with the standards, either on a discrete or continuous basis and 3) as a result of this comparison, corrective actions are taken".

According to Henri Fayol (as quoted in Managerial Control Techniques: Lal Balkaran: The Chartered Institute of Management Accountants, 1989, Pg. 5), "to control is to verify that things are done according to the plan laid out, policies formulated and instructions made in a business. The continuous appraisal and comparison of performance against adopted plans, the investigation of variations, adjustments to inputs and recording of results are the steps necessary to confirm that control is functioning in a business."

In every sphere of life there is a strong element of control which basically means ensuring or adherence to a plan or standard of performance. Even biological processes have elaborate control systems to prevent malfunctioning of its numerous organs. Out of the various discussions it emerges that control implies that a plan is in place and that authority and responsibilities exist to execute the plan and that various mechanisms are operational to fulfill the objectives. Nothing can be controlled without a plan and also no plan can be successful in meeting its objectives if it is not deployed or executed under controlled conditions. Control is therefore an integral part of the total strategic management process.

To be effective a control system has to meet the following criteria:-
1) recognition of a plan or a set of standards after the determination of objectives,
2) measurement of the results obtained,
3) comparison of results with this plan,
4) analysing the causes of all deviations, and
4) taking the relevant corrective and preventive actions to adjust to the plan.
The concept of control or of a control system can be explained by means of the following example given in Figure 5.1 below:

A Simple Control System

For such a system to work effectively, it must have the following attributes:
- a target or standard
- a measurement task
- a feedback signal
- a control procedure
- an adequate resource source
- a corrective action

The example is that for the control of the temperature of a room by means of a heat source such as hot water or warm air. This system has all the characteristics of a control system. There is a target temperature to be met and a process to meet that target. Due to various reasons in the environment there will be inflows or outflows of heat to the room. The temperature of the room is measured and this figure is fed back and compared with the target. The gap is found, if any. In the event of a gap, the heat input to the room, derived from the heat source, is adjusted so that the room temperature again comes close to the target set. This system is quite effective as the consequences are not very great and any deviation can be corrected relatively quickly.
The same earlier model can be applied to the strategic management process depicted by Figure 5.2 below:

A Reactive Control System of an Organisation

Figure 5.2

The performance or results of the organisation is measured and compared with the set of objectives. The gap, if any, is determined. If the gap is too great, strategic options are formulated and appropriate ones selected. These are then implemented, thus affecting the state of the organisation. The point to note is that only the current performance of the system is assessed, and if it is not satisfactory then a strategic decision is taken. This model is however thoroughly inadequate because strategic decisions and plans take time to be implemented and there-after affect the results. This time gap may become crucial in the prevalent dynamically changing environment.

As there are severe consequences if the organisation deviates for a considerable length of time from its set of objectives, this type of reactive control system does not serve the purpose. The system should not only measure the present performance but also must predict possible future performances and take anticipatory actions. In short the system has to be proactive instead of only reactive.
A proactive control system on the other hand predicts the possible future states of the organisation; formulating strategic options, evaluating these options through feasibility studies and then finding out how they impact the organisation's future. In short a strategic planning process is required. Figure 5.3 given below is a further elaboration of the previous figures.

The outer loop of this system is essentially the same as that of Figure 5.2. The difference is that this proactive system includes a forward loop which involves strategic option formulation, feasibility check, resource assessment, a corporate model for predicting possible future states and an uncertainty assessment. This uncertainty gives rise to the uncontrolled inputs. The output from this forward loop is also fed back and compared against the set objectives. These objectives are of course aimed towards the future. This type of proactive control
system model is essential to predict possible future states of the organisation as it is not possible to try out all the alternative strategies on the existing organisation. Also the organisation will be changing with the introduction of the strategies and the changing external environment.

THE CYBERNETIC CONCEPT OF CONTROL

Cybernetics is concerned with the common processes of communication and control in people and machines to attain desirable objectives. It attempts to map the self regulating principles found in human biological systems onto systems of machines. There has been attempts to adopt the self regulating principles found in the human brain to organisations. The cybernetic concept of control is depicted in the Figure 5.4, which goes a long way in explaining the concept of management control also.

Cybernetics is non-specific about the nature of the process being controlled, giving only general principles of control that can be applied in different conditions and situations. The basis of controlled activity is seen as reducing the deviations between actual process outputs (results) and those which are desired (objectives), that is, it focusses on some negative feedbacks. This basic process of error reduction was put forward by Tocher (1970,1976) with the model of a cybernetic control process which indicated four necessary conditions (mentioned below) which must be satisfied before control can be said to exist.

1) the existence of an objective which is desired,
2) a means of measuring process outputs in terms of this objective,
3) the ability to predict the effect of potential control actions, and
4) the ability to take actions to reduce deviations from the objective

The cybernetic model has both a predictive (anticipatory) control and also a reactive (feedback) control. Whereas reactive controls waits for the occurrence of an error and then takes actions to counteract it, anticipatory control predicts the likely occurrence of an error and takes actions to prevent it occurring. Thus control is most effective when the process never deviates from its desired state.
FIGURE 5.4: OUTLINE SCHEME OF NECESSARY CONDITIONS FOR A CONTROLLED PROCESS

1. Change inputs (first order control)
2. Amend objectives (second order control)
3. Amend model of process (internal learning)
4. Change process (systemic learning)
5. Interrogation of model (reality judgements)
6. Generation and evaluation of alternative courses of action
7. Mismatch signal
8. Value judgement
9. Objectives of process

In the context of business, anticipatory controls are essentially the planning system which examines the possible future environmental scenarios before coming to a strategic choice and a plan for action. The more complex the system, the more likely it is that reliance is placed on anticipatory controls as feedback (reactive) controls would take a long time to minimise the error. Ashby (1956) pointed out after a study on biological systems that it is more advantageous to control not by error but by controlling the causes that give rise to the error.

Unfortunately the cybernetic concept of control cannot be applied directly into the analysis of organisational control. Nevertheless the contribution of cybernetics may lie in the idea that error avoidance can explain goal-seeking behaviour. This point of view has been put forward by Morgan (1979) when he states "organisms in nature do not orient themselves towards the goal of survival. Rather they adopt modes of behaviour and organisational forms which help them avoid certain undesirable states." Such an approach certainly seems applicable in explaining much of organisational and economic behaviour, but it must be realised that the feedback process is often highly imperfect.

According to Vickers (1967) "in the management of human organisation feedback is often absent, ambiguous, uninformative and the cybernetic concept of control points to a complementary process of mental simulation which enables management to function in such conditions."

The process of mental simulation is essentially that of attempting to predict the possible outcomes of alternative courses of action. It should be noted that cybernetic control model allows the possibility of adaptation and learning.

Management control from this cybernetic perspective has been defined by Lowe (1971) as a "system of organisational information seeking and gathering accountability and feedback designed to ensure that the enterprise adapts to changes in its substantive environment and that the work behaviour of its employees is measured by reference to a set of operational sub-goals (which confirm to overall objectives) so that the discrepancy between the two can be reconciled and corrected for."
MANAGEMENT CONTROL

Anthony (1965) defines management control as “the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organisation's objectives”. This definition emphasises that the function of management control is to facilitate the accomplishment of organisation goals by implementing previously identified strategies.

“Management Control is the process of guiding organisations into viable patterns of activity, in a changing environment” (A.Berry et.al., 1995, Pg.4). Thus managers seek accountability from others and influence their behaviours and actions through monitoring and reviews of performance, so that some overall organisational goals can be achieved. Without some form of control mechanism, organisations would degenerate into a chaos of uncoordinated activities that are unlikely to possess the cohesion necessary to allow continued organisational effectiveness and survival.

There are 3 important elements in respect of management control:

1) The purpose of management control and hence the criteria that a management control system should meet

2) The management control process, including the way in which a manager might wish to use one or more management control systems to help him with that process

3) The information that a manager needs to control effectively and decisions about the amount of such information which can most effectively be carried within a management system

The dimensions of management control

1) The managerial output which has to be planned and controlled may range from concrete items such as units of products to abstract output such as improved teamwork or more effective coordination or job satisfaction.
2) The information that are used to measure the successful generation of planned output will range from objectives (mostly numerically based data) to subjective, (usually if not invariably linguistically based data).

3) The philosophy underlying the control process may range from that manifested, when a manager orders or directs his subordinates to carry out certain tasks to that which is manifest when a manager invites his subordinates to seek advice and assistance from him whenever they feel it would assist them to achieve their previously agreed objectives.

4) The management control system may be called on to operate in any mode ranging from feeding control information back to the manager who directed action to be undertaken in order to facilitate retrospective performance appraisal; to feeding changed views about the future to the subordinate so that he may decide whether advice and assistance are necessary to support the achievement of future performance objectives.

STRATEGIC CONTROL

According to Alan Coad (Strategic Control in Anthony J Berry et al. edited Management Control Theories, Issues and Practices, Macmillan, London, 1995, Pg. 123), "strategic control is concerned with the decisions and actions undertaken by organisational actors in response to perceived environmental patterns in organisational action, past or yet to come."

"Where management controls are aligned with the goals, strategies and critical success factors of the organisation, management control becomes strategic control" (George Luffman et al. 1996). The author further adds "strategic control is the use of a variety of controls at the corporate, business and functional levels to guide, direct, motivate and support managers and employees in the pursuit of organisational goals. Strategic control allows managers to evaluate whether the company's strategy is achieving the organisation's goals."

Managers are required to have strategic control over the organisation and know when and why performance does not match intended objectives. This necessitates setting up of a
Strategic Control: A Conceptual Discussion

system and a set of procedures by which managers know what is required of them and also get instant feedback on implemented actions and their results. The responsibilities for control and corrective actions obviously depend on the hierarchy of the managers and the organisation structure. This strategic hierarchy is then controlled and supported by the people, information technology and processes put in place to guide, direct, motivate and support managers and employees in working in a manner consistent with the chosen strategic plan. The managerial hierarchy is shown in the Figure 5.5 on next page.

The elements of people, information technology and processes are critical to controlling strategy in any organisation. For example, if the top-most management desires the lower level managers and other employees to behave in a way that is consistent with the goals and strategies of the organisation, then these elements must be appropriately aligned to those goals and strategies.

THE STRATEGIC CONTROL PROCESS

The strategic control process involves the interlocking elements of strategic objectives, strategic planning, decision making and controls. The focus of control is on results and ensuring that activities are producing the desired results.

The basic stages of the strategic control process are presented in the Figure 5.6. To be effective, top management must be able to measure actual performance, compare it with the plan, detect deviations, and take corrective actions to minimise the deviation.

Appropriate strategies and plans are derived from the objectives and implemented. Performance is measured and compared with planned results. The review and control process generates information for decisions and necessary corrective actions are taken. Even if the results meet the desired targets, a strategic review (evaluation) needs to be done for the integral improvement of the total process. Then preventive actions can be taken to predict and arrest potential causes of non-conformances. For close-looping of the strategic control process, feedbacks can be given to the implementation stage and also strategies can be changed to suit a particular situation. It may so happen that the objectives themselves may need changing to cope with the constantly changing business environment and market requirements.
HIERARCHY OF CONTROL ACTIVITIES

Corporate objectives

Board of directors
Audit committee

Manager observation

Internal audit

The control environment

Operational Controls

Internal Accounting Controls

* Specific overall goals derived from the business purposes are articulated by top management and board of directors

* Code of conduct to guide officers and employees in their business activities is promulgated

* Overseas management's execution of objectives and policies

* Set control standards

* Review performance

* Provide corrective & reinforcement procedures

* Monitor, test & evaluate compliance with objectives, policies & standards

* Recommended improvements in operating and control procedures

* Ethical climate and management attitude and behaviour is high

* Plan of organisation flows from business purpose

* Integrity and competence high

* Budgets

* Financial resources management.

* Production and inventory control

* Tax planning

Figure 5.5

FIGURE 5.6: THE STRATEGIC CONTROL PROCESS

- Objectives
- Strategies
- Implementation
- Review
- Preventive Actions
- Corrective Actions
- Compare actual with planned results
- Feedback
- Decision making
- Influences
Strategic Control: A Conceptual Discussion

The best type of controls are anticipative in nature, that which predicts possible deviations from the plan by anticipating their potential occurrence. Strategic control therefore constantly upgrades the activities, processes and systems of the entire organisation and improves its continued effectiveness.

Strategic planning and evaluation (review) works hand-in-hand in organisations. The elements are linked in the control process, which includes,
1) setting predetermined standards of performance,
2) measuring actual performance results,
3) comparing plan to actual performance, and
4) taking necessary corrective and preventive actions.

THE IMPORTANCE OF STRATEGIC CONTROL

Strategic control is necessary if the organisation is to achieve its objectives. There are several organisational factors that make control so necessary in strategic management

1) Change. In markets and economic environment can cause plans to become ineffective. New markets can develop, competition increases and new technologies develop which may prove as opportunities or threats to the organisation. However through the strategic control process, managers can detect these changes which can affect the organisation's performance.

2) Complexity in today's organisations require a more formal and accurate approach to planning and control.

3) Decentralisation also increases the need for effective controls. As managers delegate authority and planning, systems must be in place to determine if tasks are being accomplished as planned at the operating level. A control system allows managers to detect problems before they become critical.
CHARACTERISTICS OF STRATEGIC CONTROL SYSTEMS

The development of effective strategic controls include certain characteristics mentioned below. The relative importance of these characteristics can vary, but they can improve most control systems.

1) Accuracy
Performance measurements/results must be as accurate as possible. Inaccurate reporting can cause the organisation to allocate resources unnecessarily towards problems that really do not exist or are too minor in nature to cause for investments. The scarce resources may be needed to attack problems in some other parts of the organisation.

2) Timeliness
Information must be evaluated on a timely basis if action is to be taken in time to correct deviations.

3) Focus on strategic control points
The control system has to be focussed on those “Key Result Areas” where deviations from the plan are most likely to take place or where deviations would lead to the greater loss.

4) Flexibility
In today’s dynamic economic environment, control systems have to detect the possibility of changes. Controls must have flexibility built into them so that managers can react quickly to overcome competitive changes or to take advantage of new opportunities.

5) Acceptance
If the control system has to be accepted by the organisation’s members, the controls must be related to goals/ objectives in a meaningful way. The organisation’s goals/ objectives must be aligned to the individual’s aspirations and desires. Also the control system must be consistent with the organisation’s culture, otherwise it is likely to be ineffective.
STRATEGIC CONTROL THROUGH BUDGETS & PERFORMANCE INDICATORS.

One of the most common and important parts of a strategic control system is budgets. Budgets essentially have financial targets for the entire business, divisions, units, product lines, etc. Budgets define responsibilities and the actual performance is reviewed against the targets. Corrective actions are triggered (on the basis of the gap) by the various levels of management.

In addition to the financial measures of performance, there are other performance indicators that are important to business and are monitored against set targets such as quality of products, response time for customer complaints, machine down-time, training hours, etc. All functions and/or departments report such performance indicators relevant to them, which serve as the source of a management information system. Senior managers review the results of these performance indicators and direct or support the implementation of necessary corrective actions.

OVERVIEW MODEL OF STRATEGIC CONTROL

Although traditional control systems of objectives, measurement, feedback and corrective action are a critical component of strategic control, there are also other control mechanisms that make up a comprehensive, strategic management control system. Figure 5.7 presents a modern, integrated view of the principal elements of strategic control. This figure illustrates that the strategic hierarchy of the organisation, as represented by the mission, goals, and objectives and strategies of the organisation, is in turn translated into programmes for implementation. This strategic hierarchy is then controlled and supported by the people, information technology and processes put in place to guide, direct, motivate and support managers and employees in working in a manner consistent with that strategic plan. These are the elements of the overall management system of an organisation that are most relevant to controlling strategy, that is, the strategic management control system.
Strategic Control: A Conceptual Discussion

External Environment

Values

Mission

Goals & Objectives

Strategies

Programming

Strengths
Weaknesses
Opportunities
Threats

Informal
- leadership
- manager values
- grapevine communication
- empowerment
- organisation culture
- and subculture

Formal
- organisation structure
- roles and responsibilities
- recruitment
- training
- performance evaluation
- compensation system
- channels of communication

People

Information Technology

- management reporting
  ( budgets/financial/non financial)
  - frequency and availability of information (e.g. online vs. monthly)
  - decision support tools
  - statistical process controls

Process and Policy

- business processes
- responsibility centres
- budgeting processes
- transfer pricing
- procedures/guidelines/manuals

FIGURE 5.7: OVERVIEW MODEL OF STRATEGIC CONTROL

Strategic Control: A Conceptual Discussion

PROBLEMS IN STRATEGIC CONTROL

There are a number of problems associated with strategic control system.

Goal incongruence
The objectives of a well defined control system is to align the goals of the individual managers and employees with the goals of the organisation as a whole. If irrelevant data is collected or if standards and targets are inconsistent, people may not be motivated to monitor or review them as part of the control system. Often lower level managers oppose the implementation and the strategic control process if the planning is only "top down" and they have not been allowed to take part in the formulation stage. The control system will only be effective if the members of the organisation accept it as an effective means of achieving the objectives.

Short-term motivation
This comes primarily due to budgetary control as managers become short-term thinkers to meet the budget every month. Often the budget itself becomes the goal that receives primary focus, sometimes to the detriment of longer term performance. In many cases the short-term benefits have to sacrificed for long-term ones.

Inflexibility
Strategic control systems have to be flexible enough to absorb the changes in the environment that require modification in strategies. A rigid control system that does not allow such deviation (with the false assumption that it is keeping the organisation on the set track), may be doing more harm to the organisation's future than readily apparent. Change is inevitable and flexibility of both the plan and its associated control system is an important part of managing that change.

For further discussions and elaborations on the subject of Strategic Control by the various experts in this field, please refer to Chapter 6 on "A Study of Literature"