NATIONAL OPEN UNIVERSITY OF NIGERIA

MBA 877

Organization Designs & Development
Module 3

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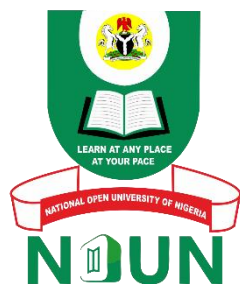
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Unit 1 Managing Organisational Change and Development

1.0 Introduction

In this unit, you will learn how we can manage changes in an organisation, to bring about effectiveness. It is obvious that change is inevitable. Changes impact organisations, especially, in the environment in which they operate.

Organisations are bound to respond to the challenges of change, if they have to remain relevant. So, this unit will consider the factors that initiate changes, and how to respond to them, so that our organisations can be efficient.

2.0 Objectives

At the end of this unit, you should be able to:

- describe organisational change

- identify types of change

- outline factors that trigger change

- evaluate strategies to implement change

- analyse various models for managing change.

3.0 Main Content

3.1 Managing Organisational Change

Change is a dynamic process which involves altering something in some way. Organisations change to what they want to achieve and how they intend to do it. The change could be in response to external circumstances which is reactive change, and some could be deliberate on the part of the organisation, which is proactive change. Some organisations can be conservative in nature thereby allowing little or no change.

Other organisations are flexible operationally, making adaptation easier and regular; while others that are dynamic in outlook seek new opportunities and challenges, constantly. One obvious thing is that change can just happen, and also it can be deliberate and planned-targeting people or structure. In this unit, we are going to consider two types of change discussed below.

1. Planned change

Robbins (1987) defines planned change as that which is planned, proactively and purposefully. This is a deliberate effort in response to the environment. An organisation is an open system which is dependent on the environment; and since the modern business environment is dynamic, any organisation or firm that wants to succeed must create an internal mechanism to facilitate planned change. This will help to keep the organisation viable.

Any organisation that does not respond to changes in the environment, in terms of its operations, or products and services will be overtaken and dominated by its competitors. An organisation will either respond to change or run the risk of a decline in its effectiveness. Consequently, failure to respond to change may lead to insolvency or bankruptcy.

2. Structural change

This type of change depends on target; it can be at an individual level or group level. At the individual level, a manager may target change in employees' behaviour. The strategy could be through training, socialisation and counseling. At group level, organisations can adopt interventions such as sensitivity training, survey, feedback and consultation.

1. Self-Assessment Exercise 1

Identify and explain two types of change.

3.2 Model for Managing Organisational Change

The model of managing organisational change can be broken into a set of steps- as pointed out by Stephen Robbins. Change is triggered by certain forces. These forces are acted upon by change agents. The change agents choose intervention action; in other words, the agents determine what is to be changed. This is preceded by the implementation of intervention programme which can address the fundamental issues of what is to be done and how it is going to be done. The 'what' requires three stages:

- unfreezing status quo

- movement to new state

- refreshing the new state, to make it permanent.

The "how" deals with the way in which the agent chooses to operationalise the change process; and the change- if successful, will enhance organisational effectiveness (Stephen Robbins, 1987).

3.3 Determinants of Change

As we said earlier, some factors initiate change in an organisation. Management may identify opportunities or problems which may serve as catalysts for change. There are several other factors that can trigger structural changes. Let us consider the following factors.

A model for Managing Organization change
by Stephen Robbins
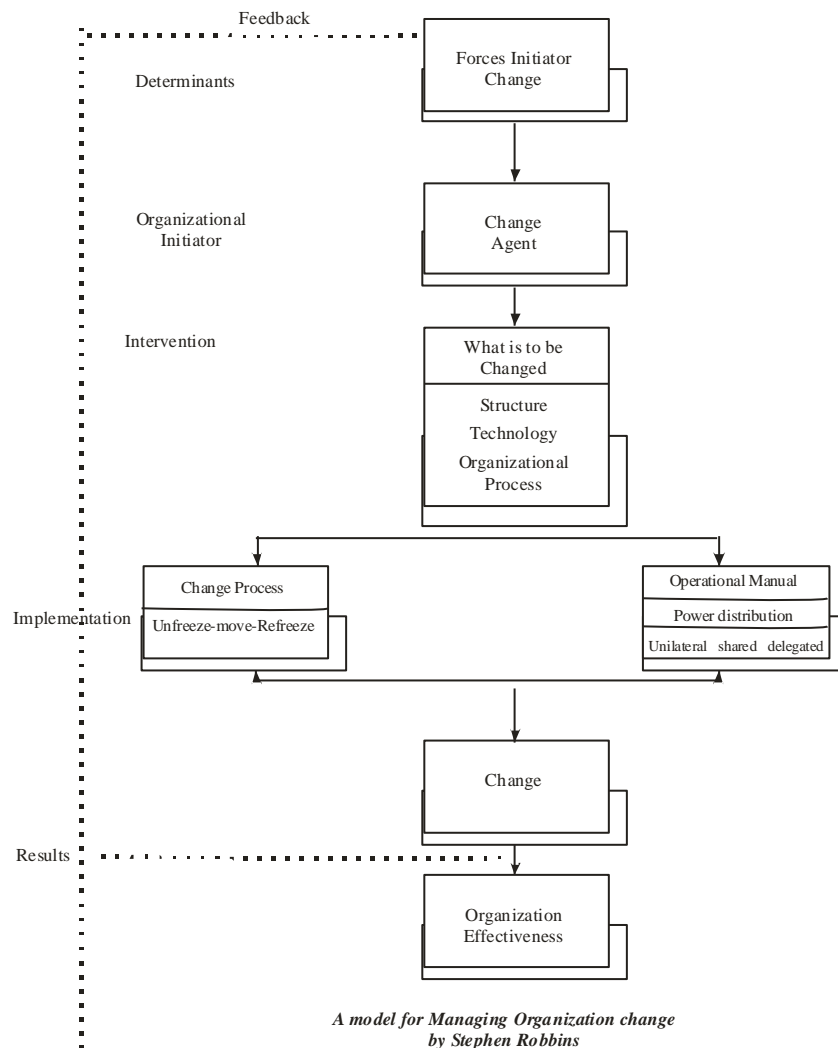
Fig. 1.1: A Model for Managing Organisational Change

1. Change of objectives

When the goal of an organisation changes, the structure tends to change too. The change of goal will determine the structure that will be adapted, whether mechanistic or otherwise, and this, inversely, determines the type of technology to adopt. If the technology is standardised, there will be the need to monitor the environment.

2. Government regulation

This is an important force; government monitors economic activities through regulations to ensure fair play and adherence to standard practice in economic activities within the nation. For instance, in Nigeria, current economic concepts are privatisation, monetisation, commercialisation consolidation and so on. Organisations need to adapt to this new business environment.

3. Merger and acquisition

This does not take place with re-organisation like the ongoing mergers in the financial sectors of the economy. The forms have resulted in duplication of offices and activities, new positions have to be created, due to expansion in the size of the organisation.

4. Rapid change in price or availability of raw materials

Structural change is always introduced when there is instability in the flow of input; this is done to cushion the effect of instability.

5. Decline in profit

When profit drops, management may respond by reshaping the structure; there may be replacement or change to eliminate weaker areas where performance is not up to standard. This can lead to total overhauling of the entire organisational structure, because profit is the underlying factor behind any business venture.

6. Increase in turnover

When the labour turnover of an organisation is high, it can carry out and initiate structural changes. Reward system can be reviewed and various incentives introduced to keep high quality work force.

7.Activities of competitors

When a company finds itself in stiff competition in an area, it may diversify to other areas. It may relocate too.

8. Purchase of new equipment

New technology, which is capital intensive, is taking over from the traditional manual labour. As a result, specialisation is gradually being replaced with standardisation. Change of technology induces change in operations, i.e. technology tends to reduce the number of workers needed for certain operations.

Other factors include unionisation, decline in the morale of employee, scarcity of labour, sudden internal and external hostility. However, Cole A. (1996) has classified these into external and internal determinants. Let us briefly look at them.

External factors that can trigger change include the following.

- Change in demand for product or services of the organisation (which can be as a result of changing consumer preferences, competition, government policies and so on.

- Threatening tactics of competitors (e.g. by aggressively cutting prices or producing an advantageous enhancement to a product or services)
- Arrival of a new comer with a competing product or services.
- Taking over of the business by more powerful enterprise
- Merger of the business with another.
- Failure of the key supplier to meet the organisation's requirements.
- Change in terms of trade (i.e. currency exchange rate tariffs)
- Inability to attract sufficient number of skilled employees.
- Development of new technology now available for application.
- Political changes (e.g. new labour law, changes rates, taxation etc
- These external factors are less predictable than others, and therefore less open to planned proactive change.
- Internal factors move predictable indicator of change and they are as follows.
- Planned changes in strategy as a result of revised mission or goals (themselves largely influenced by external considerations)
- Efforts to introduce cultural changes (e.g. in management styles, collaborative working etc)
- Need to improve productive efficiency/make better use of resources.

- Need to improve quality of product and services
- Need to deploy people (the human resources) where they are most effective.

3.4 Organisational Initiator

These are people in an organisation who are responsible in piloting change process. Change agents differ in organisations. It can include senior executive managers that make up the unit's internal staff development, also specialists and consultants brought in from outside. The change agents, usually, play indirect role between the forces initiating change and the intervention strategy adopted by the organisation. This does not preclude the fact that they don't have their self interest like any other manager. This influence can be rooted from the background where they are coming from.

However, it is worthy of note that as long as effectiveness is appraised in term of who is doing the evaluating, the background and interest of the change agents are critical to the determination of what is perceived as a condition in need of change. Outside consultants can be engaged as change agents. The essence of this is to allow objectivity in the analysis of organisational problems and infuse expert knowledge in solving these problems. Also from the power control view, they could be mere tool just to confirm management's position.

That change agents are hired from outside the organisation does not preclude them from management manipulation. It is observed that more often, they are needed as face image saving device of the management to portray the appearance of impartiality. The external agents, having their self interest in order to retain their contract, have no choice than to provide legitimacy to the self-serving decisions of the management.

Self-Assessment Exercise 3

1. Identify and explain determinants of change.

2. Explain the role of the organisational initiator

3.5 Intervention Strategies

These indicate the choice of strategy which is adopted to effect change process. These can fall into a number of categories, namely- structure, technology and organisational process which reflect the structural outlook, whereas the people strategy is targeted at a change in behaviour.

1. Structure – this is associated with changes affecting distribution

of authority, allocation of rewards, alteration in the chain of command, degree of formalisation, addition and deletion of position, departments, and divisions are all included.

2. Organisational process– this involves decision-making and communication pattern. Robbins infer that if a change agent, for instance, introduces task forces into machine bureau with the intent of improving the transformation between functional units and allowing representative from each unit to participate in decision that will affect any of them, the change agent will have altered the organisation's decision-making process.

Technology – this factor goes beyond the modification in the equipment which employees, socio-technical change and interdependencies of work activities among the workers.

3. Implementation- once forces stimulating change surface, some are likely to take position as change agents who determine what ought to be changed and how it can be changed.

4. The change process- successful change needs unfreezing the status quo, moving to a new state and refreezing the change to make it permanent. Fundamentally, we should recognise the fact that introduction does not ensure that change will produce valid result through the steps associated with change process. For example, the structural re-organisation of a firm in form of merger, acquisition or consolidation, can give rise to certain negative implications on the employees who may only decide to call it quits. This organisational change shows typical example of unfreezing moving–refreshing process.

The status quo, in this case, can be referred to as equilibrium state, to move from this equilibrium to overcome pressure by both individual resistance and group conformity–unfreezing is necessary, this can be achieved in one of the three ways, as stated by Stephen Robbins.

* The driving forces which direct behaviour away from status quo can be increased.

* The restraining, which hinders movement from the existing equilibrium, can be decreased and other alternative to combine the two approaches can be deployed.

* In reorganisation, especially where there is strong unionisation, there could be resistance from workers; to confront this resistance, management may resort to increasing pay and incentives to the individuals etc. to allay their fears etc. This is targeted at reducing resistance and of course increasing the alternative to look attractive if the unfreezing becomes accomplished. The change itself can be implemented and this is where one or two strategies are introduced by the change agent.

Dealing with resistance to change involves the following strategies:

1. Education and communication
2. Participation
3. Facilitation and support
4. Negotiation
5. Manipulation and cooptation
6. Coercion.

Finally, if the change implementation will be valid, the new situation should be refrozen so as to make it sustainable. Without it, the change will be short lived and the implication is that employees will revert to final equilibrium state. Balancing the equilibrium between the driving and restraining forces becomes the major goal of refreezing. Lewin (1951) proposes a system of managing change and the basic mechanisms are as follows as indicated by Amrstrong.

* Unfreezing – altering the present state equilibrium which supports existing behaviours and attitudes. This process must take account of the inherent threats that change presents to people and the need to motivate those affected to attain the natural state of equilibrium by accepting change.

* Changing and developing new response based on new information.

* Refreezing-stabilising the change by introducing the new responses into the personalities of those concerned.

3.6 Change Models in Organisations

1. Force analysis

Lewin also proposed a methodology for analysing change which he called 'field' force analysis and this involves:

- analysing the restraining or driving forces that will affect the transaction to the future state; these will include the reactions of those who see changes as unnecessary or a constituting threat.

- assessing which of the driving or restraining forces are critical.

- taking steps both to increase the critical driving forces and to decrease the critical restraining forces.

2. Change programme-Beckard (1969)

He suggests that change programme should incorporate the following processes:

a. defining the transaction state activities and commitment required to meet the future state;

b. setting goals and defining the future state or organisational conditions desired after change.

c. developing strategies and action plans for managing this transition in the light of an analysis of the factors likely to affect the introduction of change.

3. Approaches to managing change-Thurkey (1979)

Thurkey pointed out the following approaches that should be considered one after the other.

- Directive – this involves the imposition of change in crisis situations or when other methods have failed. This is carried out by exercising managerial power without consultation.

- Bargained – this approach recognises that power is shared between the employer and the employed and that change requires negotiation, compromise and agreement before being implemented.

- Hearts and minds – an all embracing thrust to change the attitudes, values, and beliefs of the whole workforce. This innovative approach (i.e. one that starts from a definition of what management thinks is right or normal) seeks commitment and shared vision but does not necessarily have to be involvement or participation.

- Analytical – a theoretical approach to the change process using models of change such as those described above. It proceeds sequentially from the analysis and diagnosis of the situation, through the setting of objectives, the design of change process, the evaluation of the results and finally the determination of the objective for the next stage in change process.

- Action based – this recognises that the way managers behave in practice bears little resemblance to the analytical, theoretical model. The distinction between managerial

thought and managerial action blurs in practice to the point of invisibility. What managers think is what they do. Real life therefore results often in a ready, approach to changing management. This typical approach to change starts with a broad belief that some problems exist, although they may not be well defined. The identification of solution through trial and error leads to the clarification of the nature of problem and a shared understanding of a possible optimal solution or at least a framework within which solution can be discovered.

4. The way in which people change-Bandura

Bandura describes the following as the way people change:

- People make conscious choice about their behavior

- The information people use to make their choices comes from their environment

- Their choices are based upon the things that are important to them

- The view they have about their own abilities to behave in certain ways

- The likely consequence of their behaviour.

According to Bandura, for those responsible for change management, the implications of this theory are as follows:

- The tighter the link between a particular behaviour and a particular outcome, the more likely it is that we will engage in that behaviour.

- The more desirable the outcome, the more likely it is that we will engage in behaviour that we believe will lead to it.

- The more confident we are that we can actually assume a new behaviour; the more likely we are to change people's behaviour. Therefore, we have to first change the environment within which they work. Convince them that the new behaviour is something they can accomplish (training is important).

- Persuade them that it will lead to the desired outcome.

Self-Assessment Exercise 4

Identify and discuss the various change models.

3.6 Guidelines for Change Management

Now, Armstrong (1995) has suggested the following guidelines. You are to take note of them.

- The achievement of sustainable change requires strong commitment and visionary leadership from the top.

- Those concerned with managing change at all levels should have the temperament and leadership skill appropriate to the circumstances of the organisation and its change strategies.

- It is important to build a working environment that is conducive to change. This means developing the firm as a learning organisation.

- People support what they help to create. Commitment to change is improved if those affected by the change are allowed to participate as fully as possible in planning and implementing it. The aim should be to get them to 'own' the change as something they want and will be glad to live with.

- The reward system should encourage innovation and recognise success in achieving change.

- Change will always involve future success; the failure must be expected and learnt from.

- Hard evidence and data on the need for change are the most powerful tools for its achievement, but establishing the need for change is easier than deciding how to satisfy.

- It is easier to change behaviour by changing process, structure and systems than to change attitudes and corporate culture.

- There are always people in organisations who can act as champions of change. They will always welcome the challenges and opportunities that change can provide. They are the one chosen as change agents.

- Resistance to change is inevitable if the individuals concerned feel they are going to be worse off – implicitly or explicitly. Inept management of change will produce such a reaction.

- In this age of global competition, technological innovation, turbulence, discontinuity, even chaos, change is inevitable and necessary. Moreover, Armstrong concludes that every effort must be made to protect the interest of those affected by change.

Self-Assessment Exercise 5

Identify guidelines for managing change.

4.0 Conclusion

In this unit, it has been made known to you that change is a dynamic process, which any organisation that wants to be effective and efficient, must not push aside; it must be responded to, appropriately. It could be at the individual level or group level. The change could be in response to external circumstances which is reactive change, and some could be deliberate on the part of the organisation, which is proactive change. Some organisations can be conservative in nature thereby allowing little or no change.

You also learnt that change is triggered by certain forces and these forces are what constitute the action the change agent is likely to take. However, the most important in the change agent task is to make the organisation to realise its objectives and ensuring that the organisation once more becomes effective.

5.0 Summary

In this unit, you have been exposed to how to manage change in organisations. Change can be defined as a dynamic process which involves altering, varying or modifying something in some ways. There are two types of change, reactive and proactive change. The unit also considered various models for managing change.

6.0 Self-Assessment Exercise

1. Explain the concept of field force analysis.
2. Identify four ways in which people can change their behaviours.

7.0 References/Further Reading

Armstrong, Michal (1995). *A Handbook: Human Resources Management Practice*. Milford: Kogan Page Limited.

Cole, G. A. (n.d.) *Management: Theory and Practice*.

Stephen, Robbins (1982). *Organisation Theory: Design Structure and Application*. New Jersey, Englewood Cliff: Prentice-Hall Inc.

Unit 2 Technology and Structure

1.0 Introduction

Turning input to output requires a process; this process is the focus of this unit. This process is described as Technology. Technology shows how we can change input to output. Every organisation has at least one technology for converting financial, human and physical resources into products or services. For example, institutions may use a number of instructional technologies, the popular lecture method, the programmed learning method and so forth. In this unit, you will be taught how organisational structure adapts to technology.

2.0 Objectives

At the end of this unit, you should be able to:

- summarise the theoretical perspective of technology

- describe the impact of technology on structure

- define technology.

3.0 Main Content

3.1 Technology and Organisational Structure

All organisations turn inputs to outputs regardless of whether the organisation is into manufacturing, banks, insurances, and service outfits. The process of turning inputs to outputs requires technology. This involves information, equipment, and technique- and so on.

Charles Parrow (1967) defines technology as the action that an individual performs upon an object, with or without the aid of tools or mechanical devices in order to make some changes in that object. Parrows also goes further to identify two underlying dimensions of knowledge technology, which he describes as task, variability and problem analysis ability.

However, the fundamental challenge among the researchers revolves on how one can measure technology. Researchers have suggested ways of classification, although each of these parameters for measuring technology is a bit different from the other and it is likely to produce different results if applied. These are listed as below:

- Operating technique used in work flow activities

- Characteristics of material used in work flow

- Varying complexities in the knowledge system used in work flow

- The degree of continuous, fixed sequence operations

- The extent of information and

-          The degree of interdependence between work systems.

Self-Assessment Exercise 1

Explain the role of technology in organisational structure design

3.2 Theoretical Perspectives of Technology

Let us examine three theories which will aid your understanding of how technology affects organisational structure.

a. Initial Thrust

This concept was championed by Joan Woodward in the mid 1960s to examine technology as a major determinant of organisational structure. Her focus was on production technology which was the major initiative to x-ray organisational structure from a technological perspective. Her objective was to establish if there is correlation between structured form and effectiveness which was to substantiate the theory that there is no optimum form of organisational structure that leads to organisational effectiveness.

In her findings, she gathered data from one hundred manufacturing companies in Southern England (from 250 – 1000 employees). Her data allowed her to compute various measure of structure: the number of hierarchical levels, the span of control, the administrative component, the extent of formalisation etc. A data on the finance of firms (profitability, sales, market share etc.) was gathered, which enabled her to group companies as- above average, average and below average in terms of effectiveness and success.

Her attempt to correlate common structure with effectiveness was abortive. However, when firms were grouped according to their typical mode of production technology, the relationship between structure and effective became apparent. She came up with the categorisation of firms (in terms of technology) into– unit, mass, process and production. She classified these categories with increase degrees of technological complexity to discover which process was the most complex and the less complex.

Woodward (cited by Stephen Robbins (1987) proposes the following observations:

1. There were distinct relationships between these technology classification and subsequent structure of the firms.

2. The effectiveness of the organisation was related to the "fit" between technology and structure i.e. the degree of vertical differentiation increases with technical complexity.

Woodward also established that administrative component varies directly with the type of technology. This indicates that as technological complexity increases so also followed the proportion of administrative and supportive staff personnel. The critical analysis of Woodward's effort, as indicated by Robbins, shows that for each category on the technological scale (unit, mass, process), and for each mid-point that encompasses the position of more effective firms, the firms that conform close to the mid-point figure for each structural component were the most effective.

The result indicates that mass-production technology firms were highly differentiated, they relied on extensive formalisation with little delegation of authority. The unit and process technologies were structured loosely. Flexibility was achieved through less vertical differentiation, less division of labour and more group activities, widely defined role responsibility and decentralised decision-making. Woodward's research establishes a link

between technology, structure, and effectiveness. Firms that approximated theoretical structure for their technology were most effective. Those that deviated in either direction from the ideal structure were less successful. This refers to the fact that effectiveness was a function of an appropriate technology structure fit. Organisations that develop structures that conformed to their technology were more successful than those that did not (Robbin, 1987).

The difference between Woodward's findings and the classical prescriptions of management theorists was explained based on these theorist's experiences with organisations that use mass production technologies. The mass production firm had a clear line of authority, high formalisation, a low proportion of skilled span of control at supervisory level and a centralised decision-making. This principle cannot be generalised since all organisations do not use mass production technology. Woodward research indicated in conclusion that there were no universal principles of management and organisation.

Self-Assessment Exercise 2

1. What is technology?

2. Highlight the concept of initial thrust by Woordward

b. Knowledge-based technology

Charles Perrow proposes the concept of knowledge based technology to provide generalised knowledge of technology to all organisations which goes beyond the scope of Woodward's initial thrust which is limited to manufacturing organisations only. Perrows sees technology as the action that an individual performs upon an object with or without the aid of tools or mechanical devices, in order to make some changes in that object.

He identifies underlying dimensions of knowledge-based technology.

i. **Task variability** – this deals with exceptions found in one's work. Routine jobs have few exceptions; whereas jobs that have great varieties are made up of large number of exceptions, the latter is a feature of top management of organisations.

ii. **Problem generalisation** – this dimension was devised to respond to task exception. It starts from well defined to ill defined problems. Defined problems involved the use of logical and analytical reasoning in search of solution. However, for ill-defined problems, you have to rely on your prior experience, knowledge, judgment, intuition, and probably, guess work, trial and error to arrive at a solution.

3.3 Types of Technology

Perrow points out four types of technology which are derived from construction through task variability and problem generalisation, classified into four cell matrix, as pointed out by Robbins.

a. Routine technology

This represents cell 1 which is made up of few exceptions and easy-to-analyse problems. Organisations that operate mass–production processes belong to this classification.

b. Engineering technology

This includes those in cell 2 made up of large number of exceptions that can be treated in a systematic and rationale manner i.e. construction of office building.

c. Craft technology

This belongs to cell 3 which handles, relatively difficult problems but with limited set of exceptions i.e. shoe making, furniture making.

d. Non routine technology

This is found in cell 4 which is usually made up of many exceptions and problems that are difficult to analyse, i.e. strategic planning and research activities.
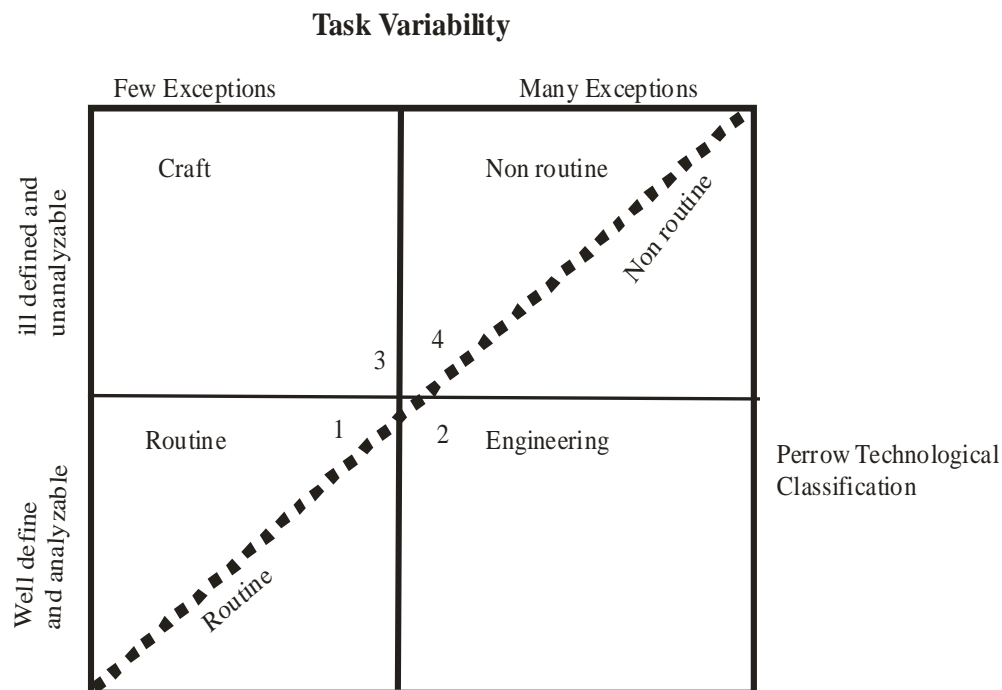
Task Variability

Fig. 2.1: A Schema for Task Variability

Perrow points out that for any problem that can be approached systematically, with logical and rational analysis, cells 1 and 2 will be best recommended. While for intuitive problems, with guess work and unanalysed experience, cells 3 and 4 will be the approach. Unfamiliar problems that appear regularly would either be in 2 or 4, if the problems are familiar, cells 1 and 2 will be appropriate.

He also proposed that task variability and problem analysis were positively correlated.

Structural Characteristics

Cell   Technology   Formalisation Centralisation Span ofCoordination

Control and control

1.Routine High High Wide Planning rigid rule.

2.Engineering Low High Moderate Reports & meeting.

3.Craft Moderate Low Moderate Training wide meeting

4.Non routine Low Low Moderate Group norms narrow and group meeting

Perrow infers that technology determines control and coordination. Highly structured organisation adopts routine technology. Firms with structural flexibility are most likely to adopt non routine technology. He identifies the aspect of structure that could be modified to technology as pointed by Stephen Robbins. These are stated below:

1. The amount of discretion that can be exercised for complexity.

2. The power of groups to control the goals of the unit and the basic strategy.

3. The extent of interdependence between the groups.

4. The extent to which these groups engage in the coordination of their work, and using perhaps, feedback in the planning of others.

The analysis of these assertions is reflected in the above structural characteristics as predicated by Perrow.

James Thompson's contribution to technological structure tends to differ in that he demonstrates that technology is the determinant factor in the selection of a strategy for reducing uncertainty and that specific structural arrangement can facilitate reduction of uncertainty. Thompson's Classification of technology deals with the range of technology in complex organisations.

1. Long-linked technology

The task is sequentially interdependent. The tasks are carried out in sequence A before B, B before C i.e. mass production assembly. This requires efficiency and coordination in operation; however, the major uncertainties that management faces is in the input and output of the organisation.

Example, acquiring raw materials and disposing finished product become management area of concern. The implication of this is that management has to respond to this uncertainty by controlling input and output and one way is to integrate vertically forward, backward or both. This allows the organisation to take care of the source of uncertainty within its limitation.

2. Mediating technology

This is the type of technology that links clients on both the input and output sides of the organisation. The linking unit responds with the standardisation of the organisation's transactions and establishing conformity in the clients' behaviours i.e. banks, employment agencies, telephone firms. These organisations deal with uncertainty by increasing populations served. The more clients they have, the less they depend on the clients.

3. Intensive technology

This reflects a customised response to a diverse set of contingencies. The exact response depends on the nature and variety of the problem, which cannot be predicted accurately. This type is dominant in hospitals, and universities. The operation requires flexibility, and the major uncertainty that managers face is the problem itself. The managers respond by ensuring that various resources are available to confront any contingency.

Structural implication

Thomson's classification is less straight forward than that of Robbins and Perrow. It creates interdependency. Long-linked technology is sequential and must be done in specific serial order. Mediating technology is interdependent; two or more units contribute to a large unit.

Intensive technology creates reciprocal inter-dependence; that is, the outputs of units influence each other in a reciprocal fashion. Each of these interdependences demands certain coordination that will facilitate organisational effectiveness yet reducing cost. Thompson technological perspective reflects the followings.

Mediating technology =low complexity and high formalisation; long-linked technology = moderate complexity and formalisation; intensive technology = high complexity and low formalisation.

Self-Assessment Exercise 3

1. Describe Thompson's classification of technology.

2. Identify four types of technology proposed by Charles Perrow.

3.4 Technology and Structure

Here, let us consider the following.

1. Technology and complexity

Research finding shows that routine technology is, positively, associated with low complexity. The more there are routines in an organisation, the less the training possessed by professionals and the occupational group tends to be fewer.

Invariably, non routine is likely to lead to high complexity. When the job becomes so complex and probably customised, it leads to narrow span of control and increases in vertical differentiation. When responses are customised, the tendency to use a specialist is greater and small span of control will be required by managers, because non programmed variety may become the challenge they may likely face.

2. Technology and formalisation

Results from studies carried out indicate that there is a relationship between routine technology and formalisation. Routine indicates that there is a manual, for rules and job descriptions. This allows management to implement rules and formalised job regulation, because how the work should be done is well understood. It is noted that non routine technology requires control system that permits greater discretion and flexibility. However, the impact of technology is not disputed, Robbins (1997) suggests that when the size is controlled, the relationship tends to vanish. He, however, suggests that the relationship holds for small organisations and their activities at or near the operating core. He points out that as the operating core becomes more of a routine, the work becomes predictable. In this case, the most efficient coordinating device is high formalisation.

3.Technology and centralisation

The relationship between technology and centralisation is dependent on the extent of formalisation. Stephen Robbins points out that both formal regulation and centralised decision-making are control mechanism, and management can alternate it with the other. When there is minimum regulation, routine technology is, likely, to be associated with central control. Decentralisation is likely to associate with routine technology when there is high formalisation. The prediction shows that centralisation can be caused by routine technology on the condition that formalisation is low.

Self-Assessment Exercise 4

Identify and explain the various dimensions of technology and structure.

3.5 Impact of Organisational Structure on Technology

The common theme that differentiates technologies is their degree of routine. By this we mean that technology tends towards either routine or non routine activities. Routine technology is associated with automated and standardised operations. Non routine activities are customised. They include varied operations such as furniture restoring, custom shoe making etc. Also, relationship is found between technology and structure. For instance, routine task is associated with more departmentalised structures. The relationship between technology and formalisation is stronger, it is indicated that routines should be associated with the manuals of rules and job descriptions and other formalised documentation.

Finally, an interesting relationship has been found between technology and centralisation. It seems logical that routine technologies would be associated with a centralised structure, while non routine technologies, which rely more heavily on the knowledge of specialists, will be characterised by delegated decision authority. This position accordingly has attracted some supports; however, a more general conclusion is that the technology – centralisation relationship is moderated by the degree of formalisation.

Formal regulations and centralised decision-making are control mechanisms; management can substitute one for the other. Routine technology should be associated with centralised control, if there are rules and regulations. However, if formalisation is high, routine technology can be accompanied by decentralisation. So, we can predict that routine technology will lead to centralisation, only if formalisation is low.

Self-Assessment Exercise 5

Discuss the impact of technology on organisational structure.

4.0 Conclusion

In this unit, it has been made clear to you that technology refers to how an organisation transfers its inputs into outputs. Various researches have been carried out which show the relationship between technology and structure. These researches have established that there is a correlation between structural form and effectiveness.

Findings also indicate that routine technology is associated with low complexity and strong relationship between technology and formalisation. Finally, the relationship between technology and centralisation is dependent on the extent of formalisation.

5.0 Summary

This unit has exposed you to the impact of organisational structure and technology. Also, you have learnt that technology relates to how input is converted to output. This can involve information, technique, equipment and process. The unit also considered various theoretical perspectives on technology.

6.0 Self-Assessment Exercise 1

i. a. Identify the two major concepts underlining knowledge based technology as proposed by Charles Perrow.

b. Discuss the four types of technology proposed by Charles Perrow.

7.0 References/Further Reading

Joans, Woodward (1965). *Industrial Organisation: Theory and Practice*. England: London University Press.

Robbins, Stephen (1987). *Organisation Theory: Structure, Design and Application*. Englewood Cliff, New Jersey: Prentice-Hall.

Unit 3 Components of Organisational Design and Management

1.0 Introduction

In the previous units, you learnt organisational structure and structural dynamisms of organisational design. This particular unit will deal with the components of organisational design, its environment, and management. It will, critically, evaluate Mintzberg's five structural designs, its merits and demerits and the environment and management. The contribution of Mintzberg to organisational design has stimulated further study to facilitate the understanding of organisational design.

2.0 Objectives

At the end of this unit, you should be able to:

- differentiate between the five configurations of organisational design proposed by Mintzberg

- list the merits and the demerits of each of these five configurations

- identify types of organisations

- categorise different organisations in your environment.

3.0 Main Content

3.1 Components and Types of Organisational Design and Management

According to Mintzberg, there are five types of organisational design; and any of these five parts can dominate an organisation. Moreover, depending on which part is in control, a given structural configuration is likely to be used.

There are five design configurations and each one is associated with the domination by one of the basic parts. Here, the underlisted should be taken into consideration:

1. If control lies with the operating core, decisions, are decentralised, this creates professional bureaucracy.

2. When strategic apex is dominant, control is centralised and the organisation is a simple structure.

3. If the middle management is in control, you will find essentially autonomous units operating in a divisional structure.

4. Where the analyst in the techno structure is dominant, control will be through standardisation, and the resultant structure will be machine bureaucracy.

5. Where supporting staff members rule, control will be via mutual adjustment, and adhocracy arises.

Each of these configurations is not without its advantages and disadvantages. However, it is the condition, structure and management which determine which will be more profitable to the organisation. Below are the five classical configurations put forward by Mintzberg.

3.1.1 Simple Structure

This operates, mostly, in flat organisations where hierarchy is less emphasised. In simple structure, decision-making is centralised on the person at the strategic apex. All reports are channeled to him. The simple structure is not elaborate, and it is characterised by complexity, and little formalisation; since authority is centered on an individual and there is informal decision-making. A typical example of simple structure is entrepreneurship business, in retail store.

The simple structure organisation is mostly applicable under the following circumstances.

- When the organisation is small and in the formative stage of development.

- It requires a simple and dynamic environment

- When the number of employees is few, small sized which implies less repetitive work and in the operating core, standardisation is less attractive.

- In the formative year, new organisation should adopt simple structure, no matter the environment and technical system.

- Simple structure is also associated with simple and dynamic environment especially with flat organisation with centralised decision-making and operation core. The reason is that simple environment can be comprehended easily by a single individual and this will enable the individual to control decision-making. A dynamic environment requires a dynamic structure so that it can react to unpredictable contingencies.

- Where top executives, with intention to hold on to power, resort to simple structure and avoid formalisation to maximise the impact at his or her discretion.

Advantages
- It is simple

- It is fast and flexible and requires no cost to maintain

- There is no layer of cumbersome structure

- Accountability is clear

- There is minimum amount of goal ambiguity because members are able to identify readily with the missions of the organisation. Someone can easily evaluate his or her input in the organisation.

Disadvantages
- Limited capabilities- with increase in size of organisation, thus leading to inadequacy of structure.

- Concentrating power in one person can amount to abuse of power and authority- as power corrupts.

- There is high risk in the structure, since everything is built on one person.

3.1.2 Machine Bureaucracy

Machine bureaucracy is associated with high level standardisation, with routine operating task. The rules and regulations in this structure are highly formalised with task grouped into functional departments. It also has centralised authority with an elaborate administrative structure and decision- making style that follows chain of command.

3.1.3 Professional Bureaucracy

This style of structure is best suited to large organisations with simple, stable environment and technology which contain routine work that could be standardised. For instance, mass production organisation with simple repetitive task i.e. prison, insurance and government agencies.

Advantages

- There is the ability to perform standard activities in highly efficient manner.

- There is the advantage of absolving less talented, and hence, less costly middle and lower level managers.

- There is economy of scale as a result of putting specialists together, and also duplicating of equipment and personnel is reduced to the barest minimum.

Disadvantages

- Obsession with following rules does not give room for modification, even when it is necessary.

- It creates sub-unit conflicts and functional unit goals, which can override the overall goal of the organisation.

- Centralised decision-making due to standardisation and high formalisation which does not allow for innovation and experienced decision makers.

This configuration combines standardisation with centralisation. In this dynamic age, modern jobs require experts. Many organisations are in demand of professionals to produce their goods and services. There is need for an organisational design on social specialisation rather than functional specialisation. The power of this design rests with the operating core because they have critical skill that the organisation needs, and they have autonomy provided through centralisation; examples are hospitals, universities, public accounting firms, and laboratories.

3.1.4 Divisional Structure

Power, in this structure, lies with middle management because structure is made up of autonomous unit. Its coordination is from the headquarters since the division is autonomous. The divisional manager has a great deal of control, and with all the divisional structure, each division generally, is autonomous. The divisional management is responsible for performance, mapping out strategy and operating decision-making authority.

There is also a centralised headquarters providing support services to the division. This typically includes financial, legal and tax services. The headquarters will act as an overseer evaluating and controlling performance. Divisions are autonomous with given parameters.

Environment and management

This structure can be best applied to an organisation with product and market diversity. Where an organisation decides to choose a diversification strategy with focus on producing many products, then, this structure is recommended. It functions effectively under complex or dynamic environments which are associated with non standard process and output.

Simple environment is much favourable to division structure than complex environment. Increase in size encourages division structures. This will help to coordinate functional unit and keep members focused and coordinated in the organisation. Also, technology in division structure is possible when the official technical system can be efficiently separated into segment.

Advantages

- It places full responsibility for product or services in the hand of the divisional managers.

- It provides for more accountability and focus in outcome compared to machine bureaucracy.

- It prevents the headquarters staff from being unduly concerned with day to day operating details, so they can afford to pay attention to long term project.

- Its autonomy makes it an excellent vehicle for training and development. Autonomous unit can be co-ordinated- with minimal effect on the entire organisation.

- Risk is spread by reducing chances that the weak part of the division will take down the other part of the organisation.

Disadvantages

- Inherent coordination problems: it is difficult to transfer personnel frequently between divisions.

- The tendency to have conflicts is high. This is because mutual cooperation between divisions is not enforced and also disagreement could arise between headquarters and divisions.

- There is also the tendency for duplication of resources and activities because each division may have the same department.

Self-Assessment Exercise

Explain divisional structure pointing out the advantages and disadvantages.

3.1.5 Adhocracy

This structure is characterised by high, horizontal differentiation and low, vertical differentiation, low formalisation, decentralisation, great flexibility and responsiveness. Horizontal differentiation is great because adhocracies are staffed, predominantly, with professionals with high level of expertise. Supervision is minimal because professionals have internalised the behaviours which the management wants.

Decision-making in adhocracies is decentralised, this is necessary for speed and flexibility and because senior management cannot be expected to have the expertise necessary to make all decisions. Therefore, adhocracy depends on decentralisation and team of professionals for decision-making.

3.1.6 Matrix Structure

This is a structural design where specialists from specific functional departments work on one or more interdisciplinary teams which are co-ordinated by project leaders. They emerge as a result of co-ordination problem in highly complex industries-such as aircraft manufacturing. It, usually combines a functional form of structure with a project-based structure. This is usually the case in the aviation industry. For instance, in the event of the need to produce a modified aircraft, the work is to be undertaken by a project team, to be co-ordinated by a project manager, who will be held accountable for the team.

He will deal with clients on regular basis. Also, he reports to his own senior manager on the progress of the project as a whole. G. A. Cole points out that this report extends to critical issues, depending on the complexity of the project. He also indicates that the matrix structure combines lateral with vertical lines of communication and authority. Thus, it has the important advantage of combining the relative stability and efficiency of hierarchical structure with the flexibility and informality of organic form of structure. Now, the advantages and disadvantages of matrix structure are considered below.

Advantages

1. It focuses on the requirement of the project group which is a direct contact with the client.

2. It helps to clarify who is responsible for the success of the   project.

3. It encourages functional managers to understand their contributive role in the productive effort of the organisation.

Disadvantages

1. There is tendency of divided loyalties on the part of the members of project teams in relation to their own manager and their functional superior.

2. Allocation of resources may create potential conflict; and also, conflict can arise from the division of authority between project group and functional specialists.

4.0 Conclusion

In this unit, you have learnt that Mintzberg's contribution to organisational design has, no doubt, been considered an historical landmark. Mintzberg classification indicates five parts that are likely to dominate in any organisation; this is dependent on the part that is

controlled. These configurations, as good and academic as they sound, are beset with lots of advantages, and disadvantages. However, it is the management, the condition and situation that will determine which will be beneficial to the organisation.

5.0 Summary

In this unit, you have learnt that there are five design configurations; these five structural designs are simple structure, machine bureaucracy, professional bureaucracy, adhocracy and divisional structure the environment, condition, and probably management, determine which one is more appropriate for achieving the objectives of the organisation.

6.0 Self-Assessment Exercise

Identify and discuss five basic parts that can determine a given structural configuration.

7.0 References/Further Reading

Cole, G. A. (1996). *Management: Theory and Practice*.

Mintzerbeg, H. (1979). *The Structuring of Organisation: A Synthesis Research*. Prentice-Hall.

Obisi, Chris (2003). *Organisation Behaviour: Concept and Application*: Malt House Press Ltd.

Robbins, Stephen (1987). *Organisation Theory: Structure, Design and Application*. Prentice-Hall Inc.

Unit 4 Mutual Impact of Strategy

1.0 Introduction

In this unit, you will be exposed to strategies and its impact on organisational structure. The concept of strategy has been misunderstood; there is a mix-up in the use of goal and strategy. Even though they have a relationship, both are different entirely. Goals are said to be 'end', whereas strategy indicates both 'means and end'. However, you should note also that goal-setting is a part of organisation strategy.

2.0 Objectives

At the end of this unit, you should be able to:

- define strategy

- outline various contributions of scholars on the mutual impact of strategy

- evaluate contemporary strategy-structure dimension

- identify strategy-structure typology.

3.0 Main Content

3.1 Mutual Impact of Strategy on Structure

An organisation's structure is a means through which management achieve its goals. Since goals and objective are derived from the organisation's overall strategy, it is only logical that strategy and structure should be closely linked. Obviously, structure should follow strategy. Should management make significant change in its strategy, the structure will need to be modified to accommodate the change. Oftentimes, as earlier said, a lot of people confuse goal and strategy; though they are related, they have different meanings. Goal refers to 'ends', whereas strategy indicates both 'means and end'. Goal constitutes a part of the organisation's strategy.

Robbins (1987) defines strategy as the determination of the basic long term goals and objectives of an enterprise, and the adoption of courses of action and allocation of resources necessary to carry out these goals. Decisions to expand the volume of activities, to set up distant plants and offices, to move into new economic functions, or to become diversified along many lines of business involve the defining of new basic goals. New course of action must be devised and resources allocated and re-allocated in order to achieve these new areas in response to shifting demands, changing source of supply, fluctuating economic conditions, new technological developments and the action of competitors.

This definition, according to Robbins, does not specify the emergence of strategy either as premeditated or something that just cropped up; however, he presents two ways in which strategy can be viewed. The first view is planning mode- this sees strategy as a plan, an explicit set of guidelines developed in advance. The management decides where they want

to go, and then they develop a systematic and structural plan to get there. The second he calls evolutionary mode; this indicates that it is not a well thought-out and systematic plan, but it evolves over time as a pattern in a stream of significant decisions.

For instance, many organisations have forayed into many business operations different from their primary lines. This is, usually, not planned; it evolves as a result of opportunities available at the moment. An organisation in insurance business stumbles into an estate to be sold by government or individuals, it may decide to acquire the estate with the aim of generating extra profit. So, it can go ahead to develop estate/property management business, aside from its main line of business. Strategy considers both means and ends. The goals and decision-making up an organisation's strategy may be planned ahead of time or may just evolve as a pattern in a stream of significant decisions, however those who think that strategy determines structure see the decision makers as choosing the structure which they have.

Self-Assessment Exercise 1

1. Identify and discuss two ways of viewing strategy.

2. What is strategy?

3.2 Strategy-Structure Relationship

Chandler's studied close to a hundred largest American firms and came out with a conclusion that change in corporate strategy preceded and led to changes in organisational structure. He states that a new strategy requires a new, or at least, refashioned structure if the enlarged enterprise is to be operated efficiently. Unless structure follows strategy, there will be inefficiency.

According to Chandler, the organisations he researched on started with a centralised structure which indicates that their product was limited. As the demand for products grew, a company has to expand. As a result of the increase in the line of the products, the company has to develop another structure to cope with their changing strategies. For example, they integrated vertically by purchasing their source of supply, this makes them less dependent on supplier. To efficiently produce, greater varieties of product groups were created in the organisation. This resulted to a structure that was, fundamentally, different.

The impact of growth and diversification gives birth to autonomous multidivisional structure. The structure that was highly centralised became inefficient and cannot cope with greater complexity that has emerged. Chandler concludes that unless new structures are developed to meet new administrative needs, which result from an expansion of a firm's activities into new areas, functions or product lines, the technological, financial and personnel economies of growth and size cannot be realised. However, Robbins, in his analysis of Chandler's thesis, states that "as an organisation seeks to grow, its strategies become more ambitious and elaborate. From single product line, companies typically expand their activities, within the same industry. This vertical integration strategy makes for increased interdependency between organisational units, and created the need for more complex coordinate device.

The device complexity is achieved by redesigning the structure to form specialised units based on the function performed. Also, if it grows into product diversification, the structure again must be adjusted if efficiency is to be achieved. A product diversification strategy demands a structural form that allows for efficient allocation of resources, accountability and coordination between units. This, according to Robbins, can be achieved through the

creation of a multiple set of independent divisions, each responsible for a specific product line.

Self-Assessment Exercise 2

Explain the strategy-structure relationship.

3.3 Contemporary Strategy-Structure Dimension

Miles and Snow developed four types of strategy based on the rate at which an organisation changes its products or markets. This classification is currently the most popular framework for defining strategy and its impact on structural design.

1. **Defenders –** they seek to maintain stability and have only limited product; with their limit, they create limited niche and domain and fight aggressively to prevent competitors through standard economic actions such as competitive price and high quality products. This result into a structure made up of high horizontal differentiation, centralisation, control, and elaborate formal, hierarchical communication.

2. **Prospectors –** their edge is finding and exploring new products and market opportunities. They place premium on innovation, rather than a quest for profit. Focus is on developing and maintaining surveillance over their environmental condition, trend and event; and consequently, they invest more on personnel who carry out this task of locating opportunities. The structure will be low in formalisation, have decentralised control with lateral as well as vertical communications. Its effectiveness lies in its capacity to respond to demand of tomorrow's world- as stated by Robbins.

3. **Analysers** – this tries to minimise waste and maximise opportunities for profit. Their strategy is to enter into new product market safely. They avoid risk, as much as possible, and have a tendency to imitate the ideas of prospectors. According to Robbins, analysers must have the ability to respond to key prospectors, and yet, maintain efficiency in the product and market areas. Their profit margin is low but they are more efficient than the prospectors.

   Analysers seek both flexibility and stability; they do this by developing a structure that has dual components. A part of this organisation has high levels of standardisation, and mechanisation for efficiency, other parts are adaptive to seek flexibility. Consequently, they seek structures that can accommodate both stable and dynamic area of operation.

4. **Reactors –** this is described as residual strategy. It results from improper pursuit of the former three strategies. Reactors do not respond appropriately to the challenges in their environment. That may result to poor performance and lack of commitment to aggressive future strategy. Top management does not define organisation strategy clearly and may develop organisation structure to fit into the chosen strategy. The organisation lacks set of mechanisms to respond to the challenges of the environment.

   Strategy Goals Environment Structural Characteristic Defender Stability and Stable Tight control; extensive Efficiency division of labour: high degree of formalization Centralised. Analyser Stable and Changing Moderately Centralised Flexible control tight control over current activities Loose controls for new undertakings. Prospector Flexibility Dynamic Loose structure, low division of labour; Low degree of formalisation decentralised

(adapted by Robbins from 'Organisational Strategy: Structure and Process'- written by Raymond, E. Miles, Charles Snow *et al. Academic of Management Review*, July 1978 pp. 652 – 556.)

Self-Assessment Exercise 2

1. Differentiate between the defenders and the prospectors

2. Which of the four types of strategy do you think will enhance efficiency- with barest minimum risk?

3.4 Systems: Theory and Structure

Stephen Robbins (1987) defines a system as a set of interrelated and interdependent parts arranged in a manner that produces a unified whole. He points out that societies, plants, humans and automobiles are systems because they take inputs, transform them and produce some outputs. The unique identification of system is the interrelationship that exists in its parts within the system.

Accordingly, every system is made of two different forces known as differentiation and integration. In a system, specialised functions are differentiated which replaces diffused global pattern. For example, human body is made up heart, lung, liver which have different functions. Likewise, organisation has different departments which are differentiated to perform specific functions. In every system, unity is maintained in order to make it form a whole, through a process of reciprocal process of integration.

In an organisation, this process is attained through coordinated level of hierarchy, direct supervision, rules, procedures and policies. While organisations are made up of parts of subsystems, they are themselves sub systems within a larger system. Note that not only are there systems but there are also sub-systems and supra-systems. The groupings are determined by their analysis.

3.4.1 Types of System

There are two types of systems, namely- close system and open system.

a. Closed system- close system has static or rigid boundary. The boundary is so flexible that the system does not, under any circumstance, interact with the external environment. It does not interact with its environment or with another system. In other words, it does not depend on the environment for its input or neither does it allow its output also in the external environment. Atrophy is a feature of a close system; it is one in which no energy is received from outside source, and in which no energy is released to its environment.

b. Open system – this interacts, constantly, with its environment. It has the characteristics of cycles and dynamic homeostatic. Homeostasis is the maintenance of equilibrium condition by the open system, through constant interaction with its environment. Open system has a flexible boundary which helps it to obtain information from its environment.

Thus, the information above enables the system to gather inputs and process them into output. Every firm takes resources and transforms them into products and services which are disposed of outside the system.

Self-Assessment Exercise 3

Differentiate between close and open system.

3.4.2 Characteristics of Open System

1. Integration and coordination – open system integrates output which is produced through profit coordination of division of labour and specialised role.

2. Homeostatic and maximisation – open system is associated with negative atrophy; in other words, they maintain adequate importation of energy to compensate energy loss and maintain equilibrium it can repair itself, maintain its structure and avoid death.

3. Equal-finality – this identifies the ability of the organisation to achieve its goal through various alternative inputs and transformation process. Organisation produces the same products or services using varied group coordination and integration depending on the process they choose.

4. Feedback and information input **–** they receive information from their environments which allows them to make adjustments and correct any defect in their process.

5. Critical in nature **–** there is a pattern of repetition; the output reinforces new input that allows for repetition

6. Growth and expansion **–** this is inevitable if the system is properly managed. The tendency for growth, consequently, ensures survival.

4.0 Conclusion

In this unit, you have learnt that strategy determines the basic long term goals and objectives of an enterprise. It also shapes the adoption of a course of action and distribution of resources to help accomplish the goals. Strategy is an offshoot of planned and explicit set of guidelines focused in the direction of accomplishment of management objectives.

It has also been made clear to you that strategy can evolve as a result of management's attempt at responding to the challenges of change in the environment; and also, it can be an attempt to exploit opportunities. Studies indicate that change, in corporate strategy, is preceded by change in organisational structure.

5.0 Summary

In this unit, you have learnt the following:

- that goals and objectives are products of overall organisational strategy

- that strategy and structure are closely linked

- that studies on strategy–structure indicate that change, in corporate strategy, is preceded by change in organisational structure.

6.0 Self-Assessment Exercise

Identify and discuss the two ways in which strategy can emerge in an organisation.

7.0 References/Further Reading

Alfred, D. Chandler(1962). *The History of Industrial Enterprise*. Cambridge: MIT Press.

Galbraith, Jay (1977). *Organisational Design*. Philippines: Addison – Wesley Publishing Company.

Raymond, Miles. & Charles, Snow (1978). "Organisational Strategy, Structure and Process." *Academy of Management Review.*

Robbins, Stephen (1987). *Organisation Theory Structure, Design and Application.* Prentice Hall Inc.