

we are trying to learn the whole organization or departments: the way it is structured: the ways the various variables relate to each other and the way groups behave in an organization set up.

Purpose of Organization Theory

The purpose of organization theory is to explain the component parts of an organization and their relationships so that some prediction can be made about how they are likely to behave under certain conditions. It is a way that scholars try to see and think about organizations based upon patterns and regularities in organization design. It is a theory that studies organizations, their structure and the relationships between its various parts. It focuses on organizations as entities in themselves i.e. the whole organization.

1.3.0 Organizational Theory, Organizational Behaviour, Management Theory and Organization Psychology

(a) What is Organizational Behaviour?

Organizational behavior refers to the behavior of people in organizations. It tries to understand the behavior, attitudes and performance of people in organizations. In addition it discusses human psychological processes that can affect behavior in organizations. For example it tells us how a system of rewards affects a person's behavior and performance in organizations.

Organizational behavior derives its concepts from political science, psychology, anthropology and social psychology

Organizational behaviour as a theory seeks increased understanding of human behaviour in organizational settings. It seeks to find out how individuals behave the way they do and how one can change their behaviour

the form of the truck for the farmer who needs to know nothing about the manufacturing process.

These utilities overlap. To some extent there can be a trade-off of utilities. In other words, more or less of some utilities can be traded for more or less of other utilities. For example economic utilities might be used with political utilities. In similar version, a political utility can be used as a way of making an economic utility.

(xi) Organisations also store utilities Organisations permit society to create and store advances in knowledge and technology and to pass them along to succeeding generations; thus with organisations, it is not necessary to re-invent the wheel or other technological, social and cultural advances. This permits rapid and higher level of technological advancement as succeeding generations start from a higher level.

(xii) Organisations enable human beings to enjoy consumer surplus.

Consumer surplus is the difference between the total utility the consumer receives from a quantity of a good and the total price he pays for that quantity. Let us explain this further. The law of diminishing marginal utility postulates that the first unit of a good has more utility than the second unit of a good. For example suppose the utility of the first glass of milk to a hungry customer is kshs 30 while the utility of the second glass is kshs 28 and so on as depicted in the table below. Customer surplus is the difference between the price he/she pays for the glass of milk and the utility of that glass of milk to the consumer.

2.3 The Classical Theories

The classical theories were developed in three streams/approaches namely:

- (a) The Administrative theory
- (b) The theory of Bureaucracy
- (c) The Scientific Management Theory

2.3.1 Administrative Theory:

This theory was largely developed by Henri Fayol (1841 – 1925) who was a French industrialist. He described a number of management principles that go towards capturing the entire flavor of the administrative theory of management. Some of those principles are:

- *Division of work (or specialization)* One should work at activities in which he/she has comparatively higher skills. This should lead to higher productivity.
- *Authority and responsibility* Authority is right to give orders. Each person should have an appropriate authority to go with the given responsibility. Responsibility is the task to be accomplished.
- *Discipline* There must be respect and obedience to the rules and objectives of the organization.
- *Unity of Command* To reduce confusion and conflicts each member should receive orders from and be responsible to only one superior.
- *Unity of direction* An organization is effective when members work together towards the same objective.

- Fayol recommend rational selection of and training of workers together with professional training for managers.

2.3.2 The Theory of Bureaucracy:

The theory of bureaucracy was developed by sociologists who took a relatively scholarly descriptive point of view. The most famous of those sociologists was Max Weber (1864 – 1920) who was a German Sociologist. He published most of his works towards the end of the 19th Century. Max Weber identified the following as the main characteristics of bureaucracy:

- Labor is divided so that the authority and responsibility of each member is clearly defined.
- Offices or positions are organized in a hierarchy of authority resulting in a chain of command.
- All organization's members are to be selected on the basis of technical qualifications through formal examinations or by virtue of training or education.
- Officials are appointed not elected.
- Administrative officials work for salaries and are career people.
- The officials are separate from owners
- The officials are subject to strict rules and controls regarding the conduct of their official duties. Those rules are impersonal and uniformly applied to all people and cases.

The above specifications by Max Weber were necessary because during this period and before, most organizations were managed on a “personal” family like basis. Employees were loyal to an individual rather than to

- Improved results in organizations will come from the application of the scientific methods of analysis to organizational problems. In other words, the scientific management approach holds that scientific solutions to problems of management of organizations are superior to those of other approaches.
- Scientific management focuses primarily on work itself and not on the particular person doing the work.
- Each worker is assumed to be a classical economic man-interested in maximizing his monetary income. The complications of emotional and social actions and reactions of persons in organizations are not emphasized.

The basic principles of scientific management as expounded by Fredrick W. Taylor are as follows:

- Develop a science for each element of man's work in order to maximize the organizations output.
- Scientifically select and then train, teach and develop the worker.
- Management should heartily cooperate with the workers so as to ensure all the work is being done in accordance with the principles of science.
- There is almost equal division of the work and responsibility between management and the workers. The management should take over all work for which they are better fitted than the workers, and the workers should do the work for which they are better fitted.
- **Application of the piece rate principle:** This is the principle by which workers are paid by piece rates on the basis of standards set by

financial/materialistic. These assumptions were not realistic and man was motivated by more than his basic needs as later proved by the neo classists

2.3.6 What prescription did each theory have for how to best structure organizations?

- ❖ *The Scientific Management Theory*
 - ❖ Scientific way to do work
 - ❖ Scientific selection of personnel
 - ❖ Financial incentives
 - ❖ Separation of management and workers

The theory of Bureaucracy

Contribution to organization theory

- well defined hierarchy of authority
- A clear division of work
- A system of rules covering rights and duties and duties of each position
- A system of procedures dealing with work situation
- Recommended impersonality of inter personal relationship
- Selective/promotion be based on technical competence.

Criticisms

- (i) Lack of empirical evidences
- (ii) Assumed people are machines
- (iii) Ignored practical situations

The Hawthorne Experiments concluded that:

- (i) An industrial organization is a socio technical system. The socio part is the human aspects that need to be taken care of in order to increase workers' productivity and the technical system is the physical aspects that also need to be improved.
- (ii) Employee attitudes and morale are also important as determinants of productivity.
- (iii) Other factors include worker's personality and supervisor's behavior. These two also affect worker's attitude and morale.
- (iv) A worker's social group has a prevailing effect on his or her attitude and productivity.

Criticisms of the Hawthorne studies

- (1) The philosophical basis

By emphasizing the social needs of human being rather than the economic needs and self-interest, these studies conflict the philosophical basis of economic theory.

- (2) Methodology

The study methodology lacks the basis for generalizations.

- (3) Findings

The cause – and – effect relationship conclusions lack general support and scientific verifiability.

Contribution

The Hawthorne Studies have however made the following contribution to Organization theory

- What the organisation should be doing, the reason it exists and the values that underlie its existence
- Aims normally written down in a policy manual in a charter or in the annual report.
- Goals emphasised in public pronouncements by the top officials of the organisations.
- Goals that describe a value system.
- Goals that serve the purpose of legitimising the organisation to the various parties such as customers, taxpayers, suppliers and employees.

Official goals are therefore the general purposes of the organization as put forth in the charter, annual reports, public statements by key executives, and other authoritative pronouncements

b) **Operative goals** on the other hand represent the real aims of the organisation. They:

- Designate the end results sought through the actual operating policies of the organisation.
- They tell what the organisation is actually trying to do regardless of what the official goals say are the aims.
- Describe desired operational activities and are often concerned with the short run

Operative goals are therefore the ends sought through the actual operating policies of the organization; they tell us what the organization is actually trying to do regardless of what the official goals say are the aims.

An example of an official goal is the one often stated regarding prisons. The prisons in most countries are said to have the official goal of rehabilitating the prisoner. However in actual practice the operative goal is to provide custodial care and to punish the offender.

Official goals perform an important role in organizations. They give the organization a favorable image and thus provide a source of legitimacy and hence justify its activities. However, most organizations end up practicing operative goals rather than official goals because:

- i) Organizational members lack knowledge of what the organization's official goals are.
- ii) Perceptions about how best to accomplish official goals differ between the different organizational participants.
- iii) Stated official goals cannot be achieved for financial and other reasons.
- iv) The operative goals of an organization are the outcome of complex exchanges between individuals and groups pursuing a diversity of aims.
- v) While the official goals of an organization may remain unchanged over time, the operative goals of an organization at different points in time may well vary substantially as a sequence of the exchanges between the individuals.
- vi) Some organizations also purposely avoid articulating specific goals so as not to attract potential competition or become a focus of opposition groups.

3.3 Functions of organizational goals

Viewed in broad perspective organizational goals perform several important functions which vary according to time and circumstances among other things. Organizational goals perform the following functions:

a). **Guidelines for action** By describing future desired results, goals serve as guidelines for action, directing and channeling efforts and activities of organizational participants. In this regard, goals provide focus, and direction for organizational activity by prescribing what should be done.

b). **“Constraints”** To the extent that goals prescribe what “should be” done, they also serve to prescribe what should not be done. An organization that commits itself to certain goals reduces the amount of discretion it has, to pursue other outcomes. For example, an organization that commits itself to maximizing immediate stock holders’ dividends in effect reduces the amount of financial resources available for expanding production capacity or investing in research and development of future products. Thus, by their nature, goals function to constrain the activities of organizational participants.

c) . **Source of legitimacy** Goals also provide a source of legitimacy for an organization by justifying its activities and indeed its existence to such groups as customers, politicians, employees, stockholders and society at large. Prominent examples of organizations and their stated official goals that provide legitimacy include:

Hospitals – provision of medical services aimed at cure, and prevention of diseases.

Prisons and mental hospitals – therapy and rehabilitation

Churches – divine worship and spiritual salvation

Universities – teaching, research and public service

c) Stakeholder approach

In this approach efficiency is measured from the perspective of the organizational stakeholders. A stakeholder is any group within or outside an organization that has a stake in the -organization's performance. Creditors, suppliers, employees, and owners are all stakeholders. Each stakeholder will have a different criterion of effectiveness because it has a different interest in the organization. Each stakeholder group has to be surveyed to learn whether or not the organization performs well from its viewpoint. The following table shows each stakeholder and its criterion;

Table 2: Stakeholder and its criterion

<u>Stakeholder</u>	<u>Effectiveness criteria</u>
1 Owners	Financial return
2 Employees	Work satisfaction, pay
3 Customers	Quality goods and services
4 Creditors	Creditworthiness
5 Community	Contribution to community affairs
6 Suppliers	Satisfactory transactions
7 Government	Obedience to laws tax payment

Shortcomings of using the stakeholder approach

- i) This approach is complicated as it seeks to satisfy many stakeholders at once
- ii) It also ignores the major stakeholders
- iii) It is also a subjective

iv) *Formalisation*- the amount of written documentation in the organisation that describes the procedures, job descriptions, regulations policies of these organisations.

v) *Specialisation*- the degree to which organisational tasks are subdivided. (This is also referred to as the division of labour.) If specialisation is extensive, each employee performs only a narrow range of activities.

vi) *Standardisation*- is the extent to which similar work activities are performed in a unified manner. In a highly standardised organisation work content is described in detail, so similar work is performed the same way across departments or locations.

vii) *Hierarchy of authority*- describes who reports to whom and the span of control for each manager. Span of control refers to the no. Of employees reporting to a supervisor. Hierarchy of authority is the no. Of hierarchal levels.

viii) *Centralisation* – refers to the hierarchal levels that have authority to make decisions when decision-making authority is kept at the top, the organisation is decentralised. When the decisions are delegated to lower levels of the organisation, then the organisation is decentralised.

ix) *Structural Complexity*– refers to the number of activities or subsystems within the organisation (horizontal complexity) the number of levels in the

- ❖ to represent the organization to the external environment

Examples of departments which perform boundary spanning role include strategic planning, public relations.

- ❖ **Differentiation.** This is the difference in cognitive and emotional orientation among managers in different functional departments and the difference in formal structure among these departments. When the external environment is complex and rapidly changing organizational departments become highly specialized to handle the uncertainty in their external domain. For example, when the University of Nairobi faces a highly hostile political environment, it establishes a specific department to deal with the complex political environment

- ❖ **Integration.** Integration is the quality of collaboration between departments. When environments are highly uncertain, organizations form integrators to increase coordination among departments. These integrators include liaison officers, management committees, task forces, or integrators.

- ❖ **Planning and Forecasting.** When the environment is stable, the organization can concentrate on current operational problems and day-to-day efficiency. Long-range planning and forecasting are easy to do because environmental demands in the future will be the same as

- **Interlocking Directorates.** The individuals appointed to the board of the organization are also members of other key stakeholders in the external environment.
- **External Recruitment.** Hiring, for example retired generals from the air force to connect an organization manufacturing air force equipment to the air force
- **Advertising.** Organizations also advertise their products to customers
- **Public Relations.** This is aimed the at public merely to cast the organization in a favorable light

❖ **Controlling Environmental Domains of the External Environment.** This entails three techniques:-

- i) **Change domains.** An organization may decide to produce the products.
- ii) **Lobbying activity.** This involves influencing government officers or politicians to make or repeal laws and regulations in the organizations favor.
- iii) **Trade Associations.** The organization may form forces with other organizations in the industry that have similar interests, by pooling resources together to take care of their interests, These organizations can afford to pay people full-time to carry out activities such as lobbying legislators, influencing regulations, developing new relations, campaigns and blocking competition

Data analysis

The initial study of data found that firms varied widely in such things as span of control, number of hierarchical levels, administrative ratio and amount of verbal communications. Thus her data did not show any proof to the “one best way” principle of management.

However a further look and analysis of the data and information showed a relationship between organisation structure and technology. Woodward developed a scale and organized the firms according to technical complexity of the manufacturing processes. Technical complexity represented the mechanization and predictability of the manufacturing process. Her scale had ten categories that were grouped into three production types as summarized in Annex 1 attached and discussed below.

Group 1: Small Batch and Unit Production

These firms tended to be job shop operations that manufacture and assemble small orders to meet specific needs of customers. Custom work is the norm. This technology relies heavily on the human operator. It is thus not highly mechanized and predictability of outcome is low. Examples included many types of made to order manufactured products, such as specialized construction equipment or custom made electronic equipment.

Group 11: Large Batch and Mass Production

This manufacturing process is characterized by long production of standardized parts. Output often goes into inventory from which orders are filled because customers do not have special needs. Examples would include

7.5.2 James Thompson's Task Interdependence

- Another pioneer in the technology- typology arena was James Thompson. Unlike Woodward's, Thompson's work was not based on field research. His contribution was theoretical – he drew from a variety of sources and proposed new ideas and frameworks about organisations. In Thompson's view, organizations are open systems and technology reflects the environment outside the organization as well as internal task activities. He proposed three categories of technology that reflect relationships with clients as well as internal transformation process. These categories are:
- Mediating technology: Mediating technology involves the mediation or linking of clients from the external environment. Typically these clients cannot deal with each other directly because of costs or complexities involved in face to face transactions. A stockbroker for example mediates between sellers and buyers, so does a real estate firm. Employment agencies bring together clients who are jobless with clients who have job openings. Banks and retail stores also mediate between clients in the environment.
- Long Linked Technology: the concept of long-linked technology refers to the combination in one organisation of successive stages of production, each stage of production uses as its inputs the production of the preceding stage and produces inputs for the following stage. Organizational activities occur in sequence in long linked technologies: the output of operation 1 becomes the input of operation 2, the output of operation 2 becomes the input of operation 3 and the finished product is then available to customers. Large-scale organisations that use assembly-line

technology in its R&D department, a long linked one in its assembly line, and a mediating technology in its financing department.

Thompson also does not deal explicitly with the issue of complexity or variability of technology in a given case (Robbins – 2000). For example some long linked technologies are quite complex and allow variability and exceptions (e.g assembling different automobile models with colour and other options) while others are less complex.

7.5.3 Charles Perrow's Knowledge Technology

Charles Perrow tried to look at the limitations of Woodward namely the fact that Woodward studied only manufacturing firms. Since manufacturing firms represent less than half of all organizations, technology needs to be operationalised in a more general way if the concept is to have meaning across all organizations.

Perrow looked at knowledge technology rather than production knowledge. He defined 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 change in that object”. He identified two dimensions of technology viz:

- **Task variability** – this considers the number of exceptions encountered in one's work. These exceptions will be few in number if the job is high in routines. Jobs that normally have few exceptions in their day-to-day practice include those on an automobile assembly line or as a fry cook at McDonald's. At the other end of the spectrum if a job has a great deal of

steel or auto mobiles or refine petroleum belongs in routine category. A bank's teller's job is also an example of activities subsumed under routine technology.

- **Engineering technologies** have a large number of exceptions, but they can be handled in a rational and systematic manner. The construction of office buildings would fall in this cell, as would be the activities performed by tax accountants.
- **Craft technologies (Cell 3):** deal with relatively difficult problems with a limited set of exceptions. This would include shoe making, furniture restoring, or the work of performing artists.
- **Non-routine technologies:** are characterized by many exceptions and difficult to analyse problems. Examples of non-routine technologies would be strategic planning and basic research activities. In summary, Perrow argued that if a problem can be studied systematically using logical and rational analysis cells 1 or 2 would be appropriate. Problems that can be handled only by intuition, guesswork or unanalyzed experience requires the technology of cell 3 or 4. Similarly if new, unusual, or unfamiliar problems appear regularly, they would be in either cell 2 or cell 4. If problem are familiar, then cell 1 or 3 are appropriate.

Perrow also proposed that task variability and problem analyzability were positively correlated. By that he meant that it would be unusual to find instances where tasks had a very few exceptions and search was clearly unanalyzable or where tasks had a great many exceptions and search was well defined and easily analyzable. So that the four technologies can be

combined into a single routine, non-routine dimension. This is shown in the figure 2 as a diagonal line.

Figure 2. Perrow's Technology Classification

Task variability

		<u>Few Exceptions</u>	<u>Many Exceptions</u>
<u>Ill defined</u>	<u>Craft</u>		C 4 non-routine
	<u>Well defined</u>	Routine 1 Routine	2 engineering

Technology and Structure

Perrow argued that control and co-ordination methods should vary with technology type. The more routine the technology, the more highly structured the organization should be. Conversely, non-routine technology

study also proved consistent with Perrow's predictions; work that was high in routineness was associated with high formalization.

Evaluation Of Perrow's typology

At the general level, i.e. where technologies can be differentiated on the basis of routineness and where more routine technologies are associated with higher degrees of formalization and centralization – there is evidence to support Perrow's theories.

Annex 1: Woodward's classification of 100 British firms according to their system of production

Group 1: Small Batch and Unit Production Technology

- Production of simple units to customer's orders
- Production of technologically complex units
- Fabrication of large equipment in stages
- Production of small batches

Group 2: Large Batch in Mass Production Technology

- Production of components in large batches. Subsequently assembled directly
- Production of large batches assembly line type
- Mass production

Group 3: Process Production Technology

ii) The Confrontation Meetings

Confrontation meeting is a type of focused exercise in which the management group meets with employees to discuss and come to grips with problems that have arisen in the organization. A consultant is included in the meeting to help slash the issues that face the organization at any particular moment. A confrontation meeting usually begins with the consultant introducing the subject matter in general terms, emphasizing the need for communication, mutual trust and understanding and the need for members and management to share responsibility for accomplishing organization goals. In such meetings, discussions on organization's operating problems are held, and solutions proposed.

(iii) Sensitivity Training (or T-Group training)

This method or technique is a group experience designed to provide maximum possible opportunity for the individuals to expose their behavior, give and receive feedback, experiment with new behavior, and develop awareness and acceptance of self and others. It provides managers with sensitivity for themselves and others and with skills necessary to more effectively guide and direct changes in social arrangements and relationships. It develops in managers the sensitivity understanding and skills to participate effectively both as group leaders and members. It also enables managers discover and develop tested principles and improved methods of human relations training

Sensitivity training is arranged usually away from the job, no activities or discussion topics are planned and the focus is on the here and now issues. The participants are encouraged to portray themselves in the group rather than in terms of past experiences or future problems. The consultant or

(iv) The bureaucratic culture

In this type of culture, symbols, heroes and ceremonies support cooperation, tradition and following established policies, and practices as a way to achieve goals. The organization succeeds by being highly integrated and efficient. There is a high level of consistency, conformity and collaboration among members.

Strategic focus is internal rather than external and the external environment requires stability rather than flexibility.

9.6 Relationship between environment, and strategy to corporate culture

Strategic focus	Environmental need	
	Flexibility	Stability
	Internal	Mission
	External	Bureaucratic

9.6 Changing organization culture

Cultures do change. As the external and internal factors that affect or influence culture change, so culture will change. However, because culture is locked up in people's beliefs, values and norms, cultural change will be slow and may not change in the same fashion or speed required to keep up

one's debt, then at appropriate times (when their assistance is needed most) reciprocity can be invoked and requests for repayment made.

(vii) The use of 'dirty tricks'

This refers to strategies that most people view as deceitful, underhanded and dishonest – ones that violate the ethical principles of human beings. Included among dirty tricks are such steps as:

- a) Falsely attributing blame for negative outcomes to others (holding them responsible for events they did not produce).
- b) Announcing one agenda for meetings, but then following a totally different hidden one thus preventing opponents from being adequately prepared.
- c) Restricting the flow of information to others or providing them with "misleading facts".
- d) Spreading false rumors about their personal lives, lack of commitment to the organization etc.

Although the above tactics are highly objectionable they are quite effective and are commonly used by unscrupulous persons in their perpetual quest for power.

11.6 Some general guidelines on the ethics of organizational politics

As noted above some of the tactics in acquiring power in organizations can be quite ethical while others are quite unethical.

Some tactics are manipulative, dishonest and in some cases even illegal.

Others are quite reasonable and even desirable such as coalitions and co-

CHAPTER 12: ORGANIZATIONAL CONFLICT COMPETITION AND COOPERATION

12.2 Definition Conflict

Conflict refers to the interactive, opposing behaviors between two or more people, groups or larger social systems having incompatible goals. Conflict is usually experienced as troublesome if not disruptive. Conflict ranges from disagreements, debates, to physical confrontation, murder, and or annihilations (elimination) i.e can be presented in the form of a continuum) Conflict may be overt or covert, perceived or actual, non-verbal or verbal, active or passive, manifest or latent.

12.3 What happens during competition / conflict?

in general the following development can be expected in groups competing for goals that only one group can attain, such as winning a contest or attaining a particularly attractive award of some trend.

- (1) A WE –VERSUS – THEY constellation of attitudes and feelings forms
Both groups take pride in the group's accomplishments and make favorable evaluation of "our" group in contrast to favorable or less negative evaluations of characteristics of other groups.
- (2) Each group has distorted perceptions and judgments about the other group Favorable information about the other group is either ignored or interpreted in favour of one's own group
- (3) The performance of one's own group is over estimated, and the performance of the other group is underestimated

criticism or defend the person attacked. Recriminations may proliferate for a while, with some disorganizing and splintering occurring. Sometimes the splintering leads to group dissolution.

6. The losing group has little empathy for the winning group. They see the celebration of the other group as excessive and they resent their self congratulatory behavior.

12.7 Function of conflict

1. Conflict and competition are the vehicles for surfacing and resolving disagreements and different points of view
2. Conflict can help redefine a group's or organization's mission and can also help review group norms
3. Some levels of conflict can also provide an energizing and vitalizing dimensions to organizational life
4. Conflict can also
 - Lead to production of better ideas
 - Lead to search for new products
 - Lead to better clarification of news.
5. Conflict can also lead to group solidarity and cooperation against the other group
6. Conflict can lead to morale and increased productivity

12.8 Dysfunctions of conflict

1. Can lead to physical harm or even killings
2. Can lead to destruction of property
3. In a work environment conflict can make people too upset to work
4. Can lead to break down or distortion of communication

12.14 If cooperation is so beneficial, why don't people, groups or units cooperate?

- The main reason is that the goals sought by the groups or individuals cannot be shared for example if two people are seeking the same promotion, they cannot cooperate to attain it. In many cases therefore, competition or conflict is the result.
- The other reason is that many valued goals in organizations (e.g status, power promotions etc,) are in short supply and are sought by many more persons or units than can hope to attain them: cooperation is scarce, whereas competition and conflict are the norm.
- The other reason is that in many instances the individuals or groups may find that they have an alternative to cooperation. They can either choose to cooperate to achieve mutually desired goals, or they can work on their own to achieve the desired goals.
- **Reciprocity:** people treat others the way they are treated rather than treating others the way they would have others do to them.
- **Communication:** in many situations where cooperation could develop, but it does not, its absence is blamed on failure to communicate.
- **Group size:** as the number of individuals rises, the level of cooperation drops. Several factors contribute to this outcome.
 - ❖ The greater the number of persons, the greater the possibility that one will be totally selfish, exploitative or simply uncooperative.
 - ❖ As groups increase in size communication among their members, becomes more difficult.