Chapter 1: Introduction to agribusiness management - definition, scope and importance; concept of business management (pp. 1-6)

Key Notes:
- Nepal has an Agrarian economy (i.e. 65.6% people involved in agriculture sector, and contributed about 32% GDP)
- Agriculture, Fishery, Forestry, all are included in agriculture (Transformation of solar energy into the consumable form of foods)
- Agricultural goods and services haven't large substituted than industrial goods
- Agriculture needs to be commercialized
- World has become a global village (Global Village Concept—“World”)
- Agribusiness is an indispensable activity for survival of human being (value chain creation approach and upgrading of the firm and plant with niche based potentiality)
- Development is possible solely when agribusiness is effective (i.e. pro-poor growth strategies with agro industries development)
- We should have to know how of how final goods and services are produced

![Diagram: Scarce Resources attempt to satisfy unlimited wants via production and processing (Agribusiness concept)]

What is business?

Different authors have defined it differently. It is a concept easy to understand but difficult to define. Literally speaking business means “bushes”. In simple words business means ‘the state of being busy’. Broadly, business involves activities connected with the production of wealth. It is an organized and systematized human activity involving and purchase of goods and service with the object of selling them at profit. Business concerns with buying and selling goods, manufacturing goods or providing services in order to earn profit.

What is Agribusiness?

- The term “Agribusiness” was first introduced by John Davis & Ray Goldberg of Harvard University in their book ‘A Conception of Agribusiness’ in 1957. Process wise, they defined agribusiness as: “The Sum total of operation involved in the manufacture and distribution of farm supplies, production activities on the farms and the storage, processing and distribution of farm commodities and items made from them”. Thus, it represents three part system made up of:
  1. the agriculture input sector,
  2. the production sector, and
  3. the processing-manufacturing sector.
The capture the full meaning of the term agribusiness, it is important to visualize these three sectors interrelated parts of a system in which the success of each part depends heavily on the proper functioning of the other two.

- Agribusiness includes total input-farm-product sectors that supply from inputs, are involved in production, and finally, handle the processing, distributing, wholesaling and retailing of the product to the final consumer.
  
  \[\text{----------- Downey & Trocke, 1987}\]

- Agribusiness is the coordinating science of supplying agricultural production input and subsequently producing, processing and distributing food and fiber.
  
  \[\text{--------- Roy, 1977.}\]

- We are concluded that Agribusiness includes analysing and working on a whole chain of farms strategically from primary production, through processing and finally to marketing - works on multiple levels. (In another word, value chain and upgrading of farm products are the part of agribusiness). Nevertheless, development focus includes for the strengthening the weaker parts of the chain to become more competitive through (i) capacity building, (ii) improved flow of information, (iii) changed policy framework, and (iv) increased value added in the agribusiness.

**In agricultural inputs (qqt):**

- q: should be available in the market in the right quality eg. Urea should be contained 46% N.
- q: agricultural inputs which farmers are desiring according to their buying capacity (quantity),
- t: should be available in the right time.

Agribusiness involves from “Farm to Fork” (e.g. identification of bottlenecks with agribusiness), and works as multiple level.

- Thus, **agribusiness is branch of agricultural economics**\(^1\) which coordinates the agricultural production, inputs supplies, outputs, processing and distribution of food and fiber.

**Myths of Agribusiness:**

1. **Agribusiness is agricultural production through farming.**

   Agriculture is considered as Traditional Farming. Till now, agriculture is considered as means of livelihoods, way of life rather than business.

   - **Diversification:** Allocation of available resources in different uses. Aims to minimize Risk, Uncertainty.
   - **Commercialization:** Allocation of available resources in single uses. Aims to increase Profit, Incomes.
   - **Diseconomies of Scale:** Stage of reducing/lowering cost if produced used is caused diseconomies of scale. Arises due to (i) insufficient use of resources. For eg. Tractor: 1000 hrs capacity but if it was for 500 hrs due to unavailability

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\(^1\) “Agriculture Economics is branch of economics which is used for solving the economic problem of farming system”

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of land is caused diseconomies of scale. (ii) due to higher number of labors, labor groups, farm association, their facilities and cost of production increases.

- **Economies of Scale**: Resources are utilized maximum in their earning capacity. Average Total Cost (y) = TC/q, where TC is Total Cost & q (=x) is quantity. Now, y = a + bx (Regression function), dy/dx = b. When b=0, at this condition average total cost is minimum, and enterprise run at this level.

![Diagram of ATC and Economies of Scale](attachment:image.png)

2. **Agribusiness is a big business**
   It has a large number of components like, input suppliers, producers, collectors, wholesalers, retailers and consumers (technology, production and process)

3. **Agribusiness is purely a private sector undertaking**
   It is perfectly private undertaking in ancient time, but now it is not so. Since it (agribusiness activity) has been changing according to the government activities and policies, i.e. terms of taxation and subsidies. Agribusiness also plays the roles an increasing 'social welfare (eg. social premium price for Fair Trade Certified coffee in international market). In ancient time it is thought that agribusiness is profit saving organization.

**What is Management?**

Henry Fayok is considered as the father of principles of management. According to him, “to manage is to forecast, to plan, to organize, to command coordinate and to control”.

Mary Parker, “Management is the art of getting things done through people”

Thus, management is an art or science of organization and operation of a farm business in a regular continuum of maximizing profit in a consistent with the satisfaction of family members/consumers, i.e. agribusiness (farm) management.

**Management is view as:**
- A resource – economically
- System of authority – administratively, and
- Class or elite – social
- Management is responsible for organizing, planning, leading and controlling.
Management helps coordinate both the human and material resources towards objective accomplishment through collective effect.

**Four element of management are:**

1. **Towards objective**
2. **Through people**
3. **Via technique**
4. **In an organization**

**Scope of Agribusiness**

Agribusiness management is the managerial economics in agricultural sector that applied to the analysis of agricultural business problems and decision making. Broadly speaking, it is applied economics. Problems involving decision making may be broadly divided into two categories

1. **Operational or internal problem**, i.e. what to produce, choice of size of firm, choice of technology, how to promote sales, how to face the price competition, how to expand the investment, how to manage profit and capital, how to manage inventory, stock of both finished and raw goods, etc.
2. **Environment or external problem**, i.e. related to the overall economic, social and political atmosphere of the firm and country.

Agribusiness has a ‘vertical structure’ composed of input suppliers, farmers, processors, transport operators, financiers, wholesalers, retailers, and consumers. These components participate in the movement of the commodity from the procedure down to the final consumers.

The agribusiness concept is market-oriented (demand-driven approach). This means that the components must function in a way that will lead to satisfaction of consumers need. Market orientation advocates that market be developed for the products that the industry producers or that not product should be produced unless it is marketable.

**Thus, scope of agribusiness can be expressed as:**

- The ‘whole agricultural sector’ (including fishery and forestry)
- The portion of the ‘industrial sector’ which is composed of manufacturers or suppliers of inputs (i.e. for the farm, processing plants, and marketing firms) and processors of products, and
- The portion of the ‘commercial/service sector’ which provides transport or distribution, financing and other services.
Importance of Agribusiness

- Utilization of niche based potentiality according to comparative advantages of agricultural goods and services
- Pro-poor growth strategy in rural farming areas
- Value added and upgrading of agricultural commodity
- Market-oriented (demand-driven business approach)

### Demand Side

- Income growth & Internalization of taste
- Demand for high value added product
- Retailing/market infrastructure change
- Local/foreign investment

### Supply Side

- Traditional commodity production
- Infrastructure enhancement
- Human & scientific skill development
- Production system selection & technology transfer

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Distinctive Feature of Agribusiness

1. **Tremendous variety in kind of business the agribusiness sector**: Agribusiness studies with the large number of components, i.e. agricultural inputs suppliers, supply into the farmers --- collectors/brokers/consumers --- middlemen/wholesalers/sorter/grade/processor/store keeper --- wholesalers --- retailers --- consumers.

   - Larger no. of middlemen in agricultural products than other industrial products. For example, in agriculture sector 10 million transactions around 20 or more middlemen are involved while only one or 2 middlemen are involved in industrial sector for same amount of transaction.

   - Industrial product is produced in single place while agricultural product is collected from diversified places/areas with high employment provision to the people.

   - So, the way in which basic agribusiness is built around several million farm produces. Literally, millions of different business has involved handling the route from the producer to the retail marketer.

2. **Agricultural products have relatively inelastic demand than the industrial products.**

3. **Infinite variety in size of agribusiness** (Agricultural products lack homogeneity). For example: Onion--- High quality (for the high economic level people)---Medium quality (for the low income status)--- Low quality (for the poor people).

4. **Many agribusiness workers exhibit a traditional philosophy of life, which tend to make agribusiness more conservative than some other business**- Agriculture is the way of life and not for profit maximization, means of livelihoods.

5. **Agricultural products are seasonal in nature/low storage life** – bulk amount in certain season: increase cost due to storage cost and lost cost.

6. **Agribusiness deal with vagaries of nature (drought, flood, insects, pest, etc.):** eg. Rice- its production affected by various environmental factors while Biscuit production has certain formula is there and produced accordingly in control environment.

7. **Agribusiness firm tends to be family oriented/community oriented.**

8. **All most all of government policies touch the agribusiness/agricultural production:**

   i. Education policy

   ii. Health policy

   iii. Price policy: floor price, minimum price

   iv. Government monetary policy

   v. Fiscal policy

..................Chapter 1 ends..................
Chapter 2: **Basic concept and definitions of firm, plant, industry and their interrelationship with respect to agricultural production** (pp. 7-10)

1. **Farm**
   A piece of land where various enterprise are produced generally, agricultural commodities are produced. Function of land, labor and capital for producing particular output. Thus, enterprise \( Y = f \) (land, labor and capital).

   Types of farm:
   1. **Family farm:** Household labor dependent and diversified production.
   2. **Commercial farm:** Commercial approach of production, market-oriented and has generally around $2500 sales annually.

2. **Firm**
   In a firm, there is management, someone makes decision. There is some hierarchy and an organizational used.

   Business enterprises are called firm. The function of making fundamental policy decisions in a firm is generally called ‘entrepreneurship’.

   Technical unit of production is a firm.

   Technology is used to produce certain output.

   **Objective of firm:** To increase the output/ to minimize the cost.

   Technology-product \( \rightarrow \) It is limited by the level of technology used and input.

   Input \( \Rightarrow \) Support production process

   Resources \( \Rightarrow \) Provide platform of production

   Distribution/Output \( Y = f \) [Land, Labor, Capita and Management \{LLCM\}]

   - Allocation of total resources/income in different factor of production. Factor of production paid according to marginal productivity (i.e. what portion is contributed by particular topic)

   **Embodied:** visible to eye.
   Occurs in the form of capital goods, assets, eg. Building, machinery

   **Disembodied:** non-visible form.
   Occurs in the management services, eg. Service of doctor, manager

   ![Diagram](image)

   Note: Marginal Productivity \( \text{MP} = \Delta Y/\Delta X \)
Firm is used in both economy\(^2\) and economic\(^3\) aspects.

3. **Plant**

It is another name of a firm, interchangement aspect of it. It is firm or plant.

**Objective of plant:** To provide efficient technology to minimize cost

- Technical efficiency: Physical
- Economic efficiency: Monetary
  - Some technology changes the intercept, eg. crop variety change, cropping system.
  - Some technology changes the slope, i.e. slope only change: \(y = f(x_1/x_2,x_3)\). Where \(y\) = rice production and \(x_1\) = fertilizer. (Fertilizer application in broadcasting and coated form)
  - Some technology changes both intercept and slope, i.e. technology increases marginal productivity \((\Delta Y/\Delta X)\) of all resources.

Thus, plant is also a set of machinery/technology used in production process. For examples, milk processing plant, jam/jelly processing plant.

Plants are the input of firm and by using this input the firm produce certain output and this summation gives industry output.

4. **Industry**

It comprises of several similar firms or plants (Group of similar firms/plants). For examples:

- (i) Agricultural industry
- (ii) Livestock industry
- (iii) Poultry industry (Broiler industry, Layer industry)
- (iv) Agri-feed industry, etc

Agricultural industry, eco-tourism, mining and coaling all are industries. Agricultural industry has millions of farms, 2.6 to 2.7 millions of farm in Nepalese agri-industry.

**Objective of industry:**

1. To achieve/increase physical optima or
2. To achieve/increase economic optima

**Physical optima:** Level of input used that gives maximum output. The country suffering from ‘Malnutrition’, this optima has of importance.

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\(^2\) Economy is a body bounded by certain geographical area or certain situation, eg. Rural economy, Nepalese economy, etc.

\(^3\) Economic refers all the activities which related to economics, eg. Consumption (process of utilizing goods & services having utility), production (process of creating utility), distribution and exchange.
**Figure:** Relationships between total, average and marginal products (Stages of production and rational resource use) Maximum output in point ‘a’ where $MP\left(\frac{\Delta Y}{\Delta X}\right)=0$. (i.e. physical optima).

**Economic optima:** Those countries which achieve self-sufficiency, no malnutrition problem working on economic optima, i.e. level of input used that maximize the ‘Profit’

Marginal Revenue (MR) = Marginal Cost (MC)

if MR>MC firm applies more inputs to maximize profit while MR<MC firm/producer should apply less inputs.

So, profit: --- MR=MC or Total Revenue (TR)-Total Cost (TC) = Maximum⁴

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⁴ Profits are the difference between total revenue (TR) and total cost (TC). Hence, the point where this difference is the maximum will represent the position of maximum profits, and, therefore, of equilibrium. Maximum-profit will lie where the vertical distance between the TR and TC curves is greatest. In the above Figure 2 maximum profit is ‘M’ where PP is the largest vertical distance between the two curves. Hence at the point, the firm is in equilibrium position and earning maximum profits PP by producing OM output. **Break-even Point:** from the figure 2nd, it is clear that at any output smaller than OL, TC exceeds TR and the firm is having losses. At the output OL total cost equal total revenue and the firm is having neither losses nor profits. This point ‘L’ is called "Break-even Point". At the output larger than ON, the TR is less than TC so that the firm is having losses. Point N is again a break-even point. Between OL and ON will lie the optimum point of maximum profits.
Thus, the principle of profit maximization can be discussed in two ways:

1. As a relationship between MC and MR, and
2. As a marginal production ratio \( \frac{\Delta y}{\Delta x} = MP \) in the relation to factor-product price ratio \( \frac{P_x}{P_y} \)

**Interrelationship between firm, plant and industry with respect to agricultural production:**

**Key Features:**
1. Coordination/networking
2. Resources/fund flow
3. Management and decision-making
4. Value adding practices and upgrading

**Figure:** Interrelationship between firm, plant and industry with respect to agricultural production.
Environment is the situation in which agribusiness firm is operated. Agribusiness environment is related to the overall economic, social and political atmosphere of the firm or country.

The environment factors or forces which affect the success of agribusiness are into:

1. Economic environment,
2. Demographic environment,
3. Socio-cultural environment,
4. Technological environment,
5. Political environment, and
6. Legal environment.

It is the resultant effect of those components like government, technology, management, organization and individual (public).

In agribusiness firm there is millions of producers and consumers. So the effect of single producers and consumers is negligible, i.e. they have no single effect on fixing market price, demand and supply.

Equilibrium (E) is the situation which Doesn’t change until and unless the External forces are acted /operated.

Government:

Externality: An activity by one agent causes a loss/gain of welfare to another agent. The loss of welfare is uncompensated, i.e. pollution.
Negative externality: loss of welfare, eg. Pollution
Positive externality: gain of welfare, eg. Neighbor garden
Furthermore, externality is inefficient market allocation (market failure). If efficiency is important political objective, then state (Government) intervention through:

a. Tax
b. Subsidy (price of inputs decrease due to subsidy facilities)
c. Ceiling price (Price level fixed by government above which the producers are not allowed to sell), minimum floor price etc and/or
d. Change the framework condition (eg. property right)
General Environmental Forces Affecting Agribusiness:

Figure: General environmental forces affecting agribusiness. (Sources: Jackson, Slocum, 2002 with some modification)

Impact of economic growth (agribusiness) on environment:

1. Economic activities (comparative advantage)
2. Environmental institution (policy, property right)

Observation: Rich countries often have a more stringent environment policy than poor countries.
Environmental ‘Kuznets’ Curve:

Hypothesis:

Environmental Quality

GDP/Per Capita Income

Better Environmental Quality

Environmental Quality

Growth

Importance of Agribusiness Environment Analysis:

The manager needs to be dynamic to effectively deal with the challenges of the environment. The environment of agribusiness is not static. Some of the following benefits of environment scanning are as:

1. It creates an increased general awareness of environment changes on the part of management.
2. It guides with greater effectiveness in matters relating to government.
3. It helps in marketing analysis.
4. It suggests improvement in diversification and resources allocation.
5. It helps firms to identify and capitalize upon opportunities rather than losing out to competitors.
6. It provides a base of objective qualitative information about the business environment that can subsequently be of value in designing the strategies.

Management System & Managerial Decisions

1. The decision-making process at the level of top management:
   Determine the internal allocation of most of the resources. Two crude are set: The first is a budgetary (financial) criterion, i.e., are the funds available for the realization of the proposed agribusiness project? The second is an improvement criterion, i.e., does the agribusiness project being proposed improve the existing situation beyond doubt?

2. Decision at lower levels of management (Administration):
   Adoptively rational system, i.e., on the floor, day-to-day activities, “blue print” and rule-of-thumb.
**Decision:** Choosing the best course of action (choosing among various sets of alternatives) for accomplishing goals out of available alternatives.

1. **Investment the solution:**
   - Defining problem,
   - Diagnose causes
   - Identify decision objectives

2. **Table of alternatives:**
   - Seek creative alternatives
   - Do not evaluate

3. **Evaluation alternatives & select the best one:**
   - Evaluate alternative
   - Select the best alternative

4. **Implement & Monitor:**
   - Plan implementation
   - Monitoring and making necessary adjustments.

**Diagram:** Rational decision making process (Stronger, Freedman & Gilbert, 1995)

Managerial Decisions:
1. Based on efficiency, i.e. technical and economic efficiencies
2. Based on optima
   - Physical optima, i.e. output maximization (MP=0)
   - Economic optima, i.e. profit maximization (MR=MC or TR-TC=Max.)
   and/or factors combinations, i.e. least cost combination

Least cost combination:
\[
\frac{\Delta X_1}{P_{X_2}} = \frac{\Delta X_2}{P_{X_2}}
\]

**最少成本组合**：

**Iso-quant**: Various inputs combination that can be used to produce a given output (possible inputs combination which produces the same output).

**Iso-cost line**: All possible combinations of two inputs which can be purchased with a given outlay of funds (each combination of inputs has same total cost which indicates the cost of two inputs (X_1, and X_2) combined).

(Note: for details about efficiency, physical and economic optima please refer lecture notes’ Chapter 2 in firm and industry)

………………Chapter 3 ends………………

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5 **Least cost combination**: Slope of iso-quant = Slope of iso-cost line (\(\Delta X_1 / P_{X_2} = \Delta X_2 / P_{X_2}\))

**Iso-quant**: Various inputs combination that can be used to produce a given output (possible inputs combination which produces the same output).

**Iso-cost line**: All possible combinations of two inputs which can be purchased with a given outlay of funds (each combination of inputs has same total cost which indicates the cost of two inputs (X_1, and X_2) combined).
Chapter 4: **Organization and function in business management.** (pp. 15-24)

What is an Organization?

An organization is a system of two or more persons, engaged in cooperative action, trying to reach a purpose.

Organizations are bounded systems of structured social interaction featuring authority relations, communication systems, and the use of incentives. ... Examples of organizations include businesses, hospitals, colleges, retail stores, and prisons.

Thus, organizations are players or groups of individual bound by a common purpose to achieve certain objectives (North, 1995).

For examples:
   i. Political bodies (parties)
   ii. Economic bodies (companies)
   iii. Social bodies (Churches)

What are the advantages of an Organization?

Two Examples:

The principle of division of labour made it possible that labourers could specialize themselves on a few tasks only. Adam Smith (1776) showed that in the production of small pins productivity improved from 20 to 4800 per day when the production process was divided in ten tasks and labourers were specialized to perform the different tasks.

An Organization makes it possible to perform a complex task which can’t be tackled by one person. **Only a group of persons can sail a large ship**

**Figure:** External and Internal Organizational Structure

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**Vertical Coordination**

**Horizontal Coordination**

**Customer A**  **Customer B**  **Customer C**

**Product Market**

**Competitor**

**Agribusiness organization**

**Factor Market**

**Supplier A**  **Supplier B**
Organizational Behavior – Organizational Theory

**Organizational behavior** focuses on the behavior, attitude and performance of people in organization.  
**Organizational theory** focuses on design and structure of organization.  
(Source::Joseph E. Champoux: Organizational Behavior, 2003, p.7)

Organizational Structure  
i. Organizational principles  
ii. Organizational design

Organizational Characteristics (”Principle”))

![Organizational Characteristics Diagram]

1. Organizational structure has to be a function of the degree of the division of labor, the degree of specialization, and of course, a function of the technique employed.  
2. The organizational structure depends on the complexity of the task and the technology to handle the complexity.  
3. The organizational structure is a function of the size of the firm-farm-or the plant. The degree the enterprise is, the more advanced the organization must be.

Generic form of Organizational Structure (Design)

1. Organization design by function
2. Organization by products

Top Management

- Product A
- Product B
- Product C

3. Organization by customers

Top Management

- Consumer A (Retailer chain)
- Customer B (Wholesaler)
- Customer C (Food services)

4. Organization by division

Field Services
Senior Vice-Preident

- Eastern Region
  - Vice-Preident
- Western Region
  - Vice-Preident
- South Region
  - Vice-Preident

Central Development
- Vice-Preident

South-north
Development
- Vice-Preident
5. Matrix Organization: In the matrix organization each position is supervised by two managers, the manager in charge of the product and the manager in-charge of the function.

**Figure**: Possible organizational design in horticultural firms.
Schools of Organizational Functions

- **The evolution of management thought:**
  John Calvin (1509-1564) wrote many theological papers (i.e. *Institutio Christiane Religionis*). His main points are:
  1. Hard work is welcomed by God.
  2. Richness is the reward by God for hard work.

If one asked the question: What is the dominant business ideology today? The answer will not be straight forward.

- **Management Foundation: Marx and Engels:**
  In 1848 two of these scientists published the: - "Communist Manifesto". Karl Marx and Frederic Engels saw the evolving **capitalistic system as a primary threat to the social structure** and recommended revolutionary remedies. Marx called for a proletarian (grass roots) revolution to dissolve the capitalistic order and to establish communism.

  In his (Marx) habilitation thesis- **The Capital** – no accepted by the University of Bonn, Germany. He wrote nobody should own means of production nor should it be allowed that capital could concentrate in a corporation. Many of his argument were concentration of capital would kill competition.

  The main difference between the groups of Karl Marx and the other thinkers was, that Marx thought only a **revolutionary movement** could end the disaster- the others believed that an **evolutionary approach** would be more successful.

- **Management Schools: Approaches**
  1. **Scientific management**: Frederick W. Taylor (1911)
  2. **Theory of administration**: Henrey Fayol (1919)
  3. **Bureaucracy**: Max Weber (1922)
  4. **The twentieth century’s management Guru**: Peter F. Drucker (1995)

**Scientific Management by Frederick W. Taylor (1856-1915):**

- Frederick Wislow Taylor established his scientific management at the end of the last century - until the beginning of World War I. He said, **scientific management is needed for society as well as an institution**.
- He was the believer of ‘protestant section of Christian religion.
- The usual approach in Taylor’s day was: “Management wanted as much output from labour as possible at the lowest possible cost”
- He said
  a. Emphasis hard work
  b. Economic rationality: maximum possible profit and satisfaction
  c. Individualism
  d. Any individual has the role to play in the society
- Taylor took all these as pragmatic.
- Luis Brandies said that Taylor told is scientific and gave the title scientific management and emphasized on **planning, standardization and improving human effort** at operational level in order to maximize output at the minimum possible cost.
Taylor based his scientific management on **four principles**:

1. Carefully study the jobs to develop standard work practices. Standardize the tools used by workers.
2. Scientifically select each worker.
3. Management and workers must cooperate to ensure that work is done according to standard procedures.
4. Management plans and makes task assignments; workers carry out assigned tasks.

Taylor divided management in the functions: planning, organizing and controlling.

This scientific management can be started in other sense are:

- Science not thumbs of rule.
- Harmony not discord.
- Co-operation not individualism.
- Maximum output in place of restricted output.
- Development of each man to his greatest efficiency and prosperity.
- Taylor and Luis emphasized their view on **operational level**.
- Operational level (where action are taken, eg. a farm). **Macro level**: aggregate level.

**Assessment of the Scientific Management:**

**Positive:**

1. Taylor designed **better work methods** and improved productivity.
2. He tried to operate on the **lowest organizational level**.
3. His emphasis on **small work groups** is still modern.
4. He showed the **unity of planning, organization and control**.

**Negative:**

He did not realise that workers are human beings with social needs.

**Theory of Administration: Henry Fayol (1841-1925):**

Henry Fayol was a French industrialist and theorist (father of the principle of management). His „Administration Industrielle et Générale“ was published in France in 1916, an English translation in 1949. His theory described the major management functions and several principles that act as administrative guides.

**Five functions of management (elements of management theory):**

1. **Planning and Forecasting** – which implies looking to the future and drawing up plans of action by which to deal with it.
2. **Organizing** – that is constructing structures, systems, frameworks, and policies within which action is to take place.
3. **Commanding** – which is defined in terms of making sure that activities take place according to plan, when they should, and how they should.
4. **Co-ordinating** – which means the unification or integration of disparate activities to produce the final, total outcome.
5. **Controlling** – which means ensuring that events happen in accordance with plans and policies, for instance on time and within budget.

**Fayol’s 14 principles of administrative management**
1. **Division of work**: Specialization is the most effective way to use human efforts.
2. **Authority and Responsibility**: Authority is the right to give orders and obtain obedience; responsibility is the corollary of authority.
3. **Discipline**: Obedience to organizational rules is necessary. The best way to have good superiors and clear and fair rules and agreements is to apply sanctions and penalties judiciously.
4. **Unity of command**: There should be one and only one superior for each individual employee (ordering by super-ordinate).
5. **Unity of direction**: All units of the organization should be moving towards the same objectives through co-ordinated and focused efforts (one organization, one goal)
6. **Subordination of individual interest to general interest**: The interests of the organization should take priority over the interest of an individual employee.
7. **Remuneration of employees**: The overall pay and compensation for employees should be fair to both the employee and the organization
8. **Centralization**: There should be a balance between subordinate involvement through decentralization and manager’s retention of final authority through centralization (but consensus is also important).
9. **Scalar chain**: Organization should have a chain of authority and communication that runs from the top to the bottom and should be followed by managers and subordinates (there is a hierarchy).
10. **Order**: People and materials must be in suitable places at the appropriate time and for maximum efficiency - that is, a place for everything and everything in its place (ordering by super-ordinate)
11. **Equity & Justice**: Good sense and experience are needed to ensure fairness to all employees, who should be treated as equally as possible.
12. **Stability of personnel (Strategy of tenure)**: Employees turnover should be minimized to maintain organizational efficiency.
13. **Initiative**: Workers should be encouraged to develop and carry out plans for improvements.
14. **Esprit de corps (Collective effort needed)**: Management should promote a team spirit of unity and harmony among employees.

**The bureaucratic management approach by Max Weber (1864- 1920): Bureaucracy**

Bureaucracy is an administrative structure with well-defined offices or functions and hierarchical relationships among the functions (TQM?)

Bureaucracy use legal or rational authority, which is part of a position and exists before a person takes the position or function in a bureaucracy

Weber believed the following features account for the efficiency of bureaucracies:
1. Clearly defined and specialized functions
2. Use of legal authority
3. Hierarchical form
4. Written rules and procedures
5. Technically trained bureaucrats
6. Appointment to positions based on technical expertise
7. Promotions based on technical competence
8. Clearly defined career path
Bureaucracy “Core Principles”
The following core principles are included in the book of 1921:

1. **Rules:** Clear rules are necessary for the behavior of the employees. Rules ensure uniformity of procedures, maintain organizational stability, regardless of individual managers' or employees' personal desires.
2. **Impersonality:** Reliance on rules leads to impersonality. Employees have to be valued according to rules and objective data, e.g. sales, return on investment and so on.
3. **Division of labour:** Work has to be divided into small and simple pieces, to make use of specialization and personal expertise.
4. **Hierarchical Structure:** With a hierarchical structure rules and order are best to implement. Each lower level job is under the control and direction of a higher – level position.
5. **Authority Structure:** A system based on rules, impersonality, division of labour, and a hierarchical structure is tied together by an authority structure, which determines who has the right to make decisions of varying importance at different levels within the organization.
6. **Lifelong Career Commitment:** Management and employees should feel as though they had a livelong commitment to each other. Japanese and Korean corporations have exercised this with great success after World War II.
7. **Rationality:** Management in a corporation should be based on rationality. Managers have to run organizations logically and 'scientifically'

Thus, summary remarks of bureaucracy:

- Top management
- Has pyramidal shape
- Divide into four level: top, middle, sub-middle and lower level
- Number of people involved at the lowest level is highest
- Well defined hierarchy of authority
- A system of rules covering the rights and duties of positional incumbent
- Impersonality in inter personal relationship
- A system of promotion and selection for employment based on technical competence
Bureaucracy - Assessment

Bureaucracy has a bad reputation all over the world, and talking about a bureaucratic approach always is understood as something bad. But there are many tasks which require a bureaucratic approach. Hellriegel / Slocum (1991, p.44) argue, that all tasks requiring simple work parts and many times repeated are best organized in a bureaucratic way. Many authors argue: The degree of bureaucracy depends on the task in question.

Characteristics of traditional management:

<table>
<thead>
<tr>
<th>Bureaucratic</th>
<th>Scientific</th>
<th>Administrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Weber (1922)</td>
<td>F.W. Taylor (1911)</td>
<td>Henry Fayol (1919)</td>
</tr>
</tbody>
</table>

**Characteristics**

- **Rules**: Training in routines & rules
- **Impersonality**: “One best way”
- **Division of labour**: Financial motivation
- **Hierarchy**: Hierarchy
- **Authority structure**: Authority
- **Lifelong commitment**
- **Rationality**

**Focus**

- **Whole organization**: Workers
- **Benefits**: Benefits
- **Consistency**: Productivity
- **Efficiency**: Efficiency

**Drawbacks**

- **Rigidity**: Overlooks social needs (not realize that workers are human beings with social needs)
- **Slowness**: Over emphasizes rational behavior of management

**The twentieth century's management Guru**: Peter F. Drucker (1995)


Move from the question: “What is most likely to happen?” to the question “What has already happened that will create the future?”

His first book was “The Practice of Management” 1954.

Management by objectives (MBO):

Drucker emphasized the importance of each manager setting his goals, not imposing them from above. Each manager’s goals became the source of self-control of the manager’s performance.
System approach management by…………………………

Management by Objectives (MBO)

Management by Motivation (MBM)

Management by Exceptions (MBE)

Management by Delegation (MBD)

Planning

Set objectives

Decision

Implementing

Communication

Control

Figure: The system approach-management

Practical: Compare and contrast the characteristics of traditional management (bureaucracy, scientific and administrative). Write essay on Bureaucratic organizational structure including advantage and disadvantage with some modifications is needed or not.

………………Chapter 4 ends………………
Chapter 5: Human behavior in organization. (pp. 25-33)

Before discussing human behavior, I would like to give tips about “Iceberg Principle”.

The Iceberg: How much do you see of an iceberg?

Visible above sea level (10%)

Invisible below sea level (90%)

Only 10% of any iceberg is visible and the remaining 90% is below sea level. The iceberg phenomenon is also applicable on human beings……

Thus, human behavior is the attitude, knowledge and skills of the personal in the subjectively perceived environment.

A positive thought is the seed of positive result. Whether a glass is half-full or half-empty, depends on the attitude of the person looking it.

1. Human Behavior:

There is no one single cause of human behavior; it results from the interplay of diverse factors which create a set of circumstances through the dynamic interaction of man and his environment. According to the Field Theory in psychology, the interaction of situational
Factor with the perceived environment can be described as a **field of forces, a system in tension** or, in short, a psychological field.

This can be expressed in a formula as follows:

\[ b = f(P, E \text{ subj.}) \]

Where, \( b \): behavior, \( P \): Individual (Person) and \( E \text{ subj.} \): subjectively perceived environment.

**Behavior is a function of the interaction of the individual and his perceived environment.** It is not the totality of factors in his environment that influences his behavior but only those which are perceived by the individual. As we explain in more detail below figures, human perception is to his high degree an individual and subjectively process that differs from person to person. Of the physical environment, only that part which forms the psychological environment influence behavior.

![Figure: Model of the psychological field (Human behavior).](Hartmut et al., 1989)

Not only current information but also knowledge drawn from the past, in other words experience, and the anticipation of the future events, in other words expectation, contribute to the subjective perception of circumstances.

A person (\( P \)) in his environment (subjectively perceived environment) feels something is worth striving for (a target, a desirable state of affairs, an object that is positively desired), and he mobilize his personal power to reach the goal in question. When something negative or undesirable occurs, he activates his personal powers in the same way to avoid the negative situation. Ways of reaching targets and avoiding negative situations can be blocked or impeded by barriers or **inhibiting factors** (lack of knowledge, uncertainty about consequences, insufficient means, social sanctions, etc.).

Forces conducive to positive targets are described as **driving forces** and those conducive to negative situations are termed **inhibiting forces**. Behavior is thus seen as resulting from the

---

psychological field of forces in which inhibiting and driving forces are present in a state of
equilibrium or disequilibrium with varying degrees of tension between them.

The process of behavior modification can be directly explained by the field theory view of
behavior as determined by inhibiting and driving forces. This is illustrated below figure.

Human behavior modification in organization is seen as a three-phase process:

1. Removal of previous equilibrium;
2. Shift towards a new level of equilibrium;
3. Stabilizing the modified behavior.

**Figure: Model of human behavior modification in organization**

Workers in organization require an important function in each three phases if its aim is to
promote and facilities the processes of behavior modification.

An existing state of equilibrium can be changed by:

- Introducing driving force.
- Removing inhibiting forces;
- Combining these two processes

Behavior change in organization by:

1. Experience
2. Values
3. Expectations
4. Needs
5. Attitudes
6. Internalized socio-cultural norms.
The worker's activities are activities of humans and are therefore an essential part of humanity. These activities have at least five dimensions, on the main aspects that must be considered in the analysis of work, and all the employee needs to be entrepreneur and feel accomplished for production:

a) **Technical aspects** - involves issues relating to place of work and adjustment physiological and sociological.

b) **Physiological aspects** - is the degree of adaptation man - place of work - Physical environment and the problem of fatigue - the human being is not a machine and does not work like a machine.

c) **Moral aspect** - considers the skills, the motivation, the degree of awareness, satisfaction and the intimate relationship between work activity and personality - the work is an extension of personality, is how a person measures his worth and his humanity.

d) **Social aspect** - considers the specific issues in the working environment and external factors such as family, social class, etc.

e) **Economic aspect** - as the production of wealth - the work is a way of life.

The humanism considers the improvement of development, welfare and dignity as the ultimate objective of all human thought and action - above ideals and values of religious, ideological or national.

The commitment to humanism defends the adoption of the following three fundamental principles:

a) **Philosophical**, consisting in the design of humans - men and women - as be autonomous and rational and respect fundamental to all human beings while endowed with free will, rationality, moral awareness, capacity imaginative and creative.

b) **Social policy**, which consists of a universal ethic of equality, reciprocity and human solidarity and a policy of pluralistic democracy, fair and human.

c) **Educational**, consisting of the commitment to help all individuals in implementation and improvement of its potential.

So, with the humanistic approach, "the concern with the machine, the working method, with the formal organization and the principles of administration applicable to organizational aspects give priorities to the concern with man and his social group: the technical aspects for the formal psychological and sociological aspects.

The school of human relations was born from the need of reducing the dehumanization of work and at the same time, increasing the efficiency in business.

The informal groups can communicate with ease, and find supportive environment for the majority of their problems. The formal organization is the organizational structure - organs, functions, hierarchical levels and functional relationships - and informal organization is the set of interactions and relationships that are established between the workers - uses and customs, traditions and social norms.
The informal organization is reflected by attitudes and provisions based on the opinion and sentiment. The expression of the need to 'join up' and do not change quickly or make the logic: relate to the sense of values, the lifestyles and the acquisition of social life that a person strives to preserve and defend of which is willing to fight and resist.

**The social man**, which is based on the following aspects:

a) Employees are complex social creatures, with their feelings, desires and fears. The behavior at work - as the behavior in any place - is a consequence of many motivational factors.

b) People are motivated by human needs and achieve their satisfaction through social groups with whom they interact. Difficult to participate and connect with the group cause elevation of turnover of people, lowering of moral, psychological fatigue, reduced levels of performance,

c) The behavior of social groups can be manipulated by an appropriate style of supervision and leadership (human abilities).

d) The social norms of the group act as regulatory mechanisms of the behavior of members. The levels of production are controlled by the rules of the informal group. This social control takes both positive sanctions (stimulation, social acceptance, etc.) And negative (mockery, isolation from the group, etc.).The employee is seen as a being creative and thinking, and issues such as integration, social behavior and participation in decisions.

These characteristics of personality vary in degree depending on the organization and position held.

2. **Organizational Behavior:**

Organizational Behavior (OB) is the study and application of knowledge about how people, individuals, and groups act in organizations. It does this by taking a system approach. That is, it interprets people-organization relationships in terms of the whole person, whole group, whole organization, and whole social system. Its purpose is to build better relationships by achieving human objectives, organizational objectives, and social objectives.

As you can see from the definition above, organizational behavior encompasses a wide range of topics, such as human behavior, change, leadership, teams, etc. Since many of these topics are covered elsewhere in the leadership guide, this paper will focus on a few parts of OB: elements, models, social systems, OD, work life, action learning, and change.

**Elements of organizational behavior**

The organization's base rests on management's philosophy, values, vision and goals. This in turn drives the organizational culture which is composed of the formal organization, informal organization, and the social environment. The culture determines the type of leadership, communication, and group dynamics within the organization. The workers perceive this as the
quality of work life which directs their degree of motivation. The final outcome are performance, individual satisfaction, and personal growth and development. All these elements combine to build the model or framework that the organization operates from.

Models of Organizational Behavior

There are four major models or frameworks that organizations operate out of, Autocratic, Custodial, Supportive, and Collegial:

1. **Autocratic**: The basis of this model is power with a managerial orientation of authority. The employees in turn are oriented towards obedience and dependence on the boss. The employee need that is met is subsistence. The performance result is minimal.

   ![Figure: Concept for Autocratic Model](image)

2. **Custodial**: The basis of this model is economic resources with a managerial orientation of money. The employees in turn are oriented towards security and benefits and dependence on the organization. The employee need that is met is security. The performance result is passive cooperation.

   ![Figure: Concept for Custodial Model](image)
3. **Supportive**: The basis of this model is leadership with a managerial orientation of support. The employees in turn are oriented towards job performance and participation. The employee need that is met is status and recognition. The performance result is awakened drives.

4. **Collegial**: The basis of this model is partnership with a managerial orientation of teamwork. The employees in turn are oriented towards responsible behavior and self-discipline. The employee need that is met is self-actualization. The performance result is moderate enthusiasm.

Although there are four separate models, almost no organization operates exclusively in one. There will usually be a predominate one, with one or more areas over-lapping in the other models.

The first model, autocratic, has its roots in the industrial revolution. The managers of this type of organization operate mostly out of McGregor's Theory X. The next three models begin to build on McGregor's Theory Y. They have each evolved over a period of time and there is no
one best model. In addition, the collegial model should not be thought as the last or best model, but the beginning of a new model or paradigm.

**Social Systems, Culture, and Individualization**

A social system is a complex set of human relationships interacting in many ways. Within an organization, the social system includes all the people in it and their relationships to each other and to the outside world. The behavior of one member can have an impact, either directly or indirectly, on the behavior of others. Also, the social system does not have boundaries... it exchanges goods, ideas, culture, etc. with the environment around it.

Culture is the conventional behavior of a society that encompasses beliefs, customs, knowledge, and practices. It influences human behavior, even though it seldom enters into their conscious thought. People depend on culture as it gives them stability, security, understanding, and the ability to respond to a given situation. This is why people fear change. They fear the system will become unstable, their security will be lost, they will not understand the new process, and they will not know how to respond to the new situations.

Individualization is when employees successfully exert influence on the social system by challenging the culture.

The quadrant has shown below how individualization affects different organizations (Schein, 1968):

![Impact of Individualization on an Organization](image)
- **Quadrant A**: Too little socialization and too little individualization creates isolation.
- **Quadrant B**: Too little socialization and too high individualization creates rebellion.
- **Quadrant C**: Too high socialization and too little individualization creates conformity.
- **Quadrant D**: While the match those organizations want to create is high socialization and high individualization for a creative environment. This is what it takes to survive in a very competitive environment... having people grow with the organization, but doing the right thing when others want to follow the easy path.

This can become quite a balancing act. Individualism favors individual rights, loosely knit social networks, self respect, and personal rewards and careers — it may become look out for Number One! Socialization or collectivism favors the group, harmony, and asks “What is best for the organization?” Organizations need people to challenge, question, and experiment while still maintaining the culture that binds them into a social system.

...............*Chapter 5 ends*...............
Chapter 11: Agribusiness marketing systems, functions and efficiency
(pp.34.41)

Market: Latin word, “Marketus” means merchandise. So, market is a place where buyers and
sellers come into contact and interact each other for the exchange of goods and services and
fix the single price. Current era of E-market does not require buyers and sellers in a place but
interact with E-communication (for example, ebuy: www.ebuy.de/uk). Thus, market can be
defined as the “summation of potential purchasers”.
Thus, the essentials of a market are:
a) a commodity which is dealt with;
b) the existing of buyers and sellers;
c) a place, be it a certain region, a country or the entire world; and

d) such intercourse between buyers and sellers that only one price should prevail for the
same commodity at the same time.

Classification of markets: Markets can be classified:
i. on the basis of area as local, national and world markets;
ii. on the basis of time, as market price on any particular day or moment, short-period
price, long-period price, or secular markets covering a generation; and
iii. on the basis of nature of competition obtaining there is as perfect markets and imperfect
markets.

The following chart shows at a glance different types of market forms on the basis of the
nature of competition.

<table>
<thead>
<tr>
<th>Type of the market</th>
<th>No. of firms</th>
<th>Nature of commodity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Perfect Competition: Ideal Markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pure or perfect competition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free entry or exit</td>
<td>Infinite (large number of buyers and sellers)</td>
<td>Homogenous (product)</td>
</tr>
<tr>
<td>Perfect Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absent of transport costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perfect mobility of the Factor of Production</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| B. Imperfect Competition: Lack of sufficient buyers and sellers. Where there is imperfection of buyers and sellers |
|---|---|
| (a) Monopolistic: Large number of buyers and sellers but we can count them (market having large than 10 number of sellers and large number of purchasers. | Many | Differentiated |
| (b) Perfect Oligopoly: | A few (2-10 sellers) | Homogenous |
| (c) Imperfect Oligopoly, eg market of noodles, bathing soap. | A few (2-10 sellers) | Differentiated |

| C. Pure or Absolute Monopoly: |
|---|---|
| Pure or absolute monopoly: Number of seller is only one, eg. Nepal Telecom, Nepal Electricity Authority, Post Office. | One | Homogenous |

<table>
<thead>
<tr>
<th>Other imperfect competition markets:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Duopoly</td>
<td>2 sellers only</td>
</tr>
<tr>
<td>Monosonistic: More famous in remote areas, eg. A large firm in remote area where it is only one to purchase labours of that area (MC_L&lt;0MV_P).</td>
<td>Only one purchaser</td>
</tr>
</tbody>
</table>

Source: Dewett, K. K. (2009)

Note: Monopoly is worst, but it is necessary for new invention. Monopoly in some case arises by Natural Factor: Natural Monopoly, eg. Petroleum Resources of Arabian Countries.
Local Monopoly: when there is only one seller of particular product and he can charge the price as per his wish.

KATTEL, RISHI RAM: Lecturer, agri. economics (Lecture notes for 7th semester, UG. 2010)
Marketing:
It is the process of involving the flow of goods and services from producers to consumers. “Marketing is a basic that it cannot be considered as a separate function. It is the whole business seen from the point of view of its final result, that is, from the consumer’s point of view”—Peter Drucker.

Marketing is a comparatively recent concept. Previously there was only selling, that is selling goods and services without first finding out what people really wanted to buy. Generally the practice of finding markets for goods rather than producing goods for markets persisted until about fifty years ago in the West and until far more recently in planned economies. Modern business became marketing-oriented rather than sales-oriented.

“The future isn’t ahead for us. It has already happened”-----Philip Kotler, as smartly presented his idea for addressing the marketing in the twenty first century. In his most recent famous book: Marketing Management, he has explained briefly the scope of marketing as;
Marketing is typically seen as the task of creating, promoting, and delivering goods and services to consumers and businesses. In fact, marketing people are involved in marketing 10 types of entities:

1. goods
2. services
3. experiences
4. events
5. persons
6. places
7. properties
8. organizations
9. information, and
10. ideas.

Agribusiness precisely deals with processing of farm produces and their marketing. Marketing is an ancient art but its management is of relatively recent origin and in short period of time it has gained a great deal of importance and stature.

Different organizations have different perception of marketing which have lead to the formation of different concepts. Thus, the exchange concept, the production concept, the product concept, the sales concepts are constantly laid the ground of discussion with degree of importance.

Defining marketing: Of the numerous definitions offered for marketing, we can distinguish between a social and managerial definition. A social definition shows the role marketing plays in society. One marketer said that marketing’s role is to “deliver a higher standard of living.” A social definition that serves our purpose as follows:

Marketing is a societal process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products and services of value with other.

For a managerial definition, marketing often been described as “the art of selling products”. But people are surprised when they hear that the most important part of marketing isn’t selling! Selling is only the tip of marketing iceberg. Peter Drucker, a leading management theorist says. In this connection it will be worthy to have practical ideas about what are the difference between selling and marketing.

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KATTEL, RISHI RAM: Lecturer, agri. economics (Lecture notes for 7th semester, UG. 2010)
### Table: The difference between selling and marketing

<table>
<thead>
<tr>
<th>SN.</th>
<th>SELLING</th>
<th>MARKETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sell what you can make</td>
<td>Make what you can sell</td>
</tr>
<tr>
<td>2</td>
<td>Product oriented</td>
<td>Customer oriented</td>
</tr>
<tr>
<td>3</td>
<td>Volume oriented</td>
<td>Profit oriented</td>
</tr>
<tr>
<td>4</td>
<td>Looks for new opportunities to sell the products</td>
<td>Focus on technology/cost of making products</td>
</tr>
<tr>
<td>5</td>
<td>Promotes how products are made</td>
<td>Promotes how products meet customer demand</td>
</tr>
<tr>
<td>6</td>
<td>Customer service is secondary</td>
<td>Customer service is part of product</td>
</tr>
<tr>
<td>7</td>
<td>Little planning and feedback</td>
<td>Integrated planning and feedback</td>
</tr>
</tbody>
</table>

The **American Marketing Association** (AMA) offers the following definition: *Marketing (management) is the processes of planning and executing the conception, pricing, promotion and distribution of ideas, goods, services to create exchanges that satisfy individual and organizational goals.*

Coping with exchange process calls for a considerable amount of work and skill. Marketing management takes when at least one party to a potential exchange thinks about the mean of achieving desired responses from other parties. **Marketing management is the art and science of choosing target markets and getting, keeping, and growing customers through creating, delivering, and communicating superior customer value.**

Thus, **marketing is the managerial process of satisfying needs and want through creating and exchanging products and value with others.**

The definition of marketing is based on the concept of exchange and applicable in any organization. In brief, **marketing is a total system of business activities designed to plan, promote and distribute want-satisfying products to the target markets in order to achieve organizational objectives.** The definition has two significant implications:

- **Focus:** The entire system of business activities should be customer oriented. Customers’ want must be recognized and satisfied
- **Duration:** Marketing should start with an idea about a want-satisfying product and should not end until the customers’ want are completely satisfied.

The UK Chartered Institute of Marketing defines marketing as: 

*“The management process responsible for identifying, anticipating and satisfying customer requirement profitably”*

The **marketing concept**, as a crystallized in the definition, has not always entered into management philosophy. For example, the quality of the product and the provision of after-sales services are essential requirements for successful marketing.

The three key words in this definition are identifying, anticipation and satisfying. Marketing in this sense, has been defined as “all the activities involved in the creation of place, time and possession utilities”. To emphasize all these aspects of marketing, **Clark & Clark** wrote that “marketing consists of those efforts which effect transfer in ownership of goods and care for their physical distribution.

**Agricultural marketing:**

According to Richard Kohls, *“Marketing is the performance of all business activities involved in the flow of goods and services from the point of initial agricultural production until they are in the hands of the ultimate consumer”.*

The essential principle of marketing is that producers (and processors) succeed by producing what can be **profitably sold rather easily produced**. For a business to exist, or to continue, it
must identify and satisfy consumer needs profitably. *Successful companies/agribusiness (and producers) are market-oriented rather than product-oriented.*

![Flow of payments](image)

**Figure: Stages in a marketing system**

**Marketing System:** Interaction among several components, buyers/sellers etc.

1. Selling at Hat: It is very mobile, transportation cost and storage loss increase. Products may unhygienic. Infrastructure plus quality improvement is necessary in hat (legal body must control quality). Popular in Eastern Terai.
2. Selling to village traders, eg. Orange, guava etc. Distress price/Thrown away price: Due to low bargaining power of producers (individual producers). Farming-cooperative and selling by producers own self.
3. Selling to primary markets: eg. Kalimati (Mandi), lack regulation
4. Door-to-door market.

**A market-oriented company (and producers) should:**

- Find out what people need or want,
- Arrange all its resources so that the end products will meet this need or want,
- Use suitable marketing strategies to sell the product,
- Ensure the both buyers and sellers profit from the transaction,
- Seek new market opportunities, and
- Adapt to the needs of potential as well as existing customers.

**The principles of marketing:**
Marketing involves a range of processes concerned with finding out what consumers want, and then providing it for them. This involves four key elements, which are referred to as the **4Ps**. A useful starting point therefore is to carry out market research to find out about customer requirements in relation to the 4Ps (Product, Price, Place and Promotion).
Marketing activities are consumer-oriented.

Any single activity performed in carrying a product from the point of production to the ultimate consumer may be termed as a marketing function. A marketing function may have any one or combination of three dimensions, viz., time, place and form. The marketing functions involved in the movement of goods from the producer to its ultimate consumer vary from commodity to commodity, market to market, the level of economic development of the country or region, and the final form of the consumption.

Marketing functions are synonymous with business activities, and the functional approach classifies each of them into three groups: exchange, physical and facilitating.

1. Exchange functions: Creates possession utility (facilitates transfer of ownership)

Buying and selling. The exchange or transfer of title of commodity as it moves from the farm to the consumer is vital to the marketing system.

It helps to flow goods and services from producers to consumers. It is two types; (1) buying or assembling and (2) selling or merchandizing. This helps in fixing equilibrium price in market (negotiation phase).

![Figure: Buyer and seller create market.](image)


a) Transportation: Transportation activity creates place utility, becoming a major factor with the assembly of raw commodity at the farm. Assembly is being done by an intermediary to accumulate the produce of many farmers or producers to attain desired volume. Rural traders who usually have job orders from bigger towns and provincial buyers or processors usually do this at the farm level.

b) Storage: Most farm products are harvested in one season, but because consumers desire to obtain all sorts of produces at any time storage activities which create time utility is another vital element in marketing system. Storage of perishable commodities is more expensive than storage of nonperishable since costly refrigeration or other equipment may be necessary to maintain proper product quality.
c) Processing: Processing, though oftentimes not considered a marketing activity, is largely a marketing function. This is because agribusiness products must pass through some levels of transformation before being made available to the users. In agribusiness, examples of processing activities are meat manufacturing, oil extraction, fiber stripping, and milling. Processing also minimize storage life and help in lengthening self-life of the products.

3. Facilitating functions: Standardization, Financing, Risk-bearing, Market information (Market intelligence/market research) help in increasing efficiency in physical/exchange functions.

a) Standardization/Grading: It greatly simplifies the exchange process of buying and selling, and at the same time reduces the cost. Because of the variability in agricultural outputs, grading must be done to facilitate buying, selling, transportation, storage and pricing, or the produce. Grading is done to standardize measurements, which could be in term of size, weight, and overall quality.

b) Financing: Marketing entails a lot of costs. In Nepal, farm road networks are not fully developed, transportation cost is higher. This is even made higher by the fact that agribusiness products require more careful handling because of their bulk and perishability. Financing is therefore important to handle all market-related costs and problems. Finances for agribusiness marketing could be sourced from banking institutions. Oftentimes, the middlemen themselves finance their operations to avoid delays in the performance of marketing activities.

c) Risk-taking or risk bearing: Cost associated with ownership is risk-bearing. This function is distinct from financing and includes two kinds-physical risk and market risk. Physical risk arises with ownership because of the possible deterioration of a product due to excessive moisture, heat, contaminating metals, bacteria, insects, rodents, and because of possible physical loss from accidents, fire or theft. Market risk arises with ownership because of possible decline in the product’s price. The marketer must be able to devise way to cushion handing trading/marketing business against risks.

d) Market information or market intelligence/market research: Marketing research is the process of gathering and analyzing relent market information for the purpose of making and fine-turning marketing decisions to respond for the ever-changing consumer preferences. Market research also helps in mapping out comparative strategies, especially now that there are many firms competing in the market place. It helps in the determination of prices through knowledge of effective supply and demand. It should be noted that other facilitating functions could be effectively if those who are involved are well informed. Jobs in market information include the collecting, analyzing and disseminating of large variety of data. As with the standardization function, much of the marketing information is provided by government agencies.

e) Advertising: It is necessary when new products are arising. Agricultural products need not be advertised since it is operated in perfect competition market. Seeds require advertising.
f) Packing/packaging: It helps in transport and helps in lowering the transportation cost and space. Packing is to put the products in any individual container, eg. Chowchow, Biscuits etc. This increasing quality, brand, sell volume and attractiveness of the products.

The marketing functions may be classified in various ways. For example, Thomsen has classified the marketing functions into three broad groups. These are:

| 1. Primary Functions:          | - Assembling or Procurement  
|                               | - Processing                
|                               | - Dispersion or Distribution. |
| 2. Secondary Functions:        | - Packing or Packaging      
|                               | - Transportation            
|                               | - Grading, Standardization & Quality Control  
|                               | - Determination or Discovery of Prices  
|                               | - Risk taking               
|                               | - Financing                 
|                               | - Buying and Selling        
|                               | - Demand Creation           
|                               | - Dissemination of Market Information. |
| 3. Tertiary Functions:         | - Banking                  
|                               | - Insurance                
|                               | - Communications-Posts & Tele-communication  
|                               | - Supply of Energy-Electricity. |

Kohls & Uhl have classified marketing function as follows:

| 1. Physical Functions:         | a. Storage & Warehousing  
|                               | b. Grading                
|                               | c. Processing             
|                               | d. Transportation         |
|                               | b. Selling                |
| 3. Facilitative Functions:     | a. Standardization of Grades  
|                               | b. Financing              
|                               | c. Risk Taking            
|                               | d. Dissemination of Market Information |

Marketing Efficiency:

Marketing efficiency is the ratio of market output (satisfaction) to marketing input (cost of resources). An increased in this ratio represents improved efficiency and a decrease denotes reduced efficiency. A reduction in the cost for the same level of satisfaction results in the improvement in efficiency.

\[
\text{Marketing Efficiency (E)} = \frac{\text{Market Output (O)}}{\text{Market Input (I)}} \times 100
\]

- Market Output = Satisfaction: Satisfaction of consumer/producer
Market Input = Cost of resources: Cost required performing marketing functions.

- If the rate is high (↑): Efficient market.
- If the rate is low (↓): Low efficient

Characteristics of efficient marketing system:

1. Increase in the farm production is translated into a proportional increase in the level of real income.
2. Consumers derive the greatest possible satisfaction at least possible cost.

Marketing efficiency ($E = \frac{O}{I}$) of two hypothetical markets

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Market A</th>
<th>Market B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total marketing cost incurred by all (Rs./tone)</td>
<td>300</td>
<td>500</td>
</tr>
<tr>
<td>Value added measured in term of difference in the consumer’s price and price received by the farmer (Rs./tone)</td>
<td>600</td>
<td>1500</td>
</tr>
<tr>
<td>Marketing Efficiency (E)</td>
<td>200%</td>
<td>300%</td>
</tr>
</tbody>
</table>

Producers share must be high for “Efficient Marketing”

$\text{Producer Share} = \frac{\text{Price received by farmer}}{\text{Price paid by consumer}}$

-Producer Share decrease due to several Middlemen.

For example,
Marketing Cost = Rs. 200/tone
Satisfaction: Producers share increase Rs. 400/tone  
Efficiency: 200%.
High money invest denotes higher satisfaction
Chapter 12: **Strategic marketing plan, marketing planning tool, and marketing research** (pp. 42-50)

“A strategy is a ‘pattern’ or ‘plan’ that ‘integrates’ an organization’s ‘major’ goals, policies and action sequences into a ‘cohesive whole’. Simplifying somewhat, marketing strategies can be seen as the means, or ‘game plan’, by which marketing objectives will be achieved and, in the framework that we have chosen to use, are generally concerned with the **4Ps** (which may be used combination to achieve the desired mix in more specific strategies). Examples are:

1. **Product**
   - Develop new products, repositioning or relaunching existing ones and scrapping old ones
   - Improve quality or features (adding benefits)
   - Standardize design
   - Change the mix
   - Branding
   - Balancing product portfolios
   - Changing the design or packaging

2. **Price**
   - Setting the price to skim or to penetrate (skimming)
   - Price for different market segment (change price)
   - Deciding how to meet competitive pricing
   - Change term and condition, penetration policy

3. **Promotion**
   - Change advertising
   - Change promotion (organizing the sales force to cover new products and services and markets)
   - Change selling
   - Change communication mix (deciding the public relations brief)

4. **Place**
   - Choosing the channels (change channels)
   - Change delivery or distribution
   - Change service levels (deciding levels of customer services)
   - Forward or backward integration

*In principle, these strategies describe how the objectives will be achieved. The **4Ps** are useful framework for deciding how the company’s resources will be manipulated (strategically) to achieve the objective. Having completed this crucial stage of the planning process, we will need to re-check the feasibility of our objectives and strategies in terms of the market share, sales, costs, profits and so on which these demand in practices.*

**The Corporate Objective**

This is generally expressed as the ‘desired level of profitability’ *the business seeks to achieve since profitability is a universally accepted measure of efficiency and leads to efficient resource allocation*. Strategy is the way by which the business seeks to achieve its profit objective.

Strategies will cover:
- The products and markets-marketing-which products and which markets,
- The facilities required- production, distribution,
✓ The size and character of the work force-personnel,
✓ The funding required and how- finance
✓ Social responsibility, corporate image, etc.

There is therefore a cascade of objectives and strategies all linked to the achievement of the corporate objective. The marketing objectives lead to marketing strategies which will, at the next level down, lead to promotional and advertising objectives, programs and budgets.

Objectives must be specific and should contain three elements:
1. **What is being measured** - sales, market share;
2. **How it is being measured** - percentage of market share, sales volume, and
3. **Where on that measure the objective is set** - within what time frame.

**Products and markets**
When considering products and markets the Ansoff Matrix provides a logical framework for the development of marketing strategies.

<table>
<thead>
<tr>
<th>Products</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing (old)</td>
<td>A</td>
</tr>
<tr>
<td>New</td>
<td></td>
</tr>
<tr>
<td>Markets</td>
<td></td>
</tr>
<tr>
<td>Existing (old)</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D</td>
</tr>
</tbody>
</table>

This looks at the businesses competitive position in two dimensions- product and market, giving four possible basic courses of action
- **A. Market Penetration**
- **B. Product Development**
- **C. Market Development (Market Extension)**
- **D. Diversification**

The market audit should have produced the data to enable the company to decide which parts of its product portfolio to develop and in which markets, based upon the following decisions:
✓ Maintain present position
✓ Improve position in attractive markets
✓ Harvest-relinquish competitive position and maximize short term profit and cash flow- often a precursor of withdrawal from sector/market
✓ Exit-divest
✓ Enter a new business area.

In general the development of existing products and market is generally the least costly and risky since the company is building upon knowledge and skills of the products and markets that help to give it a competitive edge.
**The Ansoff Matrix:** model of logical framework to study the market strategy.

<table>
<thead>
<tr>
<th>Increasing new technology</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing</td>
</tr>
<tr>
<td>Existing Markets</td>
<td>Market Penetration</td>
</tr>
<tr>
<td>New</td>
<td>Market Extension</td>
</tr>
</tbody>
</table>

Increasingly new markets

The company will have to decide which strategy it will use in mature market-product differentiation or cost leadership.

Three main strategies are advocated today:

1. **The market penetration strategy:** (strategy to sell existing product in existing market)

   Enterprises employing this strategy plan for growth in the current market with the current products. They count on the belief, that their products are competitive enough to increase the market share by converting nonusers to users and getting users of the products of competitors to become frequent users of the own products.

2. **The product development strategy:** (strategy to sell new product in existing market)

   This strategy will develop new products and services for the current markets. The management will investigate how improved products will sell and how fast the competitors can react.

3. **The market development strategy:** (strategy to sell existing product in new market)

   Managers employing this strategy are trying to develop new markets for the current products. They look for export possibilities or whether there are some territories not yet covered. A small horticulturist, having exploited the market potential of his village will look around for villages with insufficient market supply and will open a new outlet in such places.

**In diversification:** strategy to sell new product in new market. *In terms of size, quality, type and price of the products and market*

The box matrix can also be used to summaries the cost benefit relationship. The more benefits that can be added to the top, right hand box the greater the chance of success**.

| High Benefit to customer | **High Cost to company** | Low Benefit to customer | Low Cost to company | **

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Generic competitive strategic model:

<table>
<thead>
<tr>
<th>Broad</th>
<th></th>
<th>Narrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>Strategic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Differentiation Strategy**  
Cost Leadership Strategy  
Focus Strategy

**Uniqueness**  
Low cost (price)

Source of Advantage

**Gap Analysis**

Gap analysis looks at the shortfall (deficit) between corporate objectives and current forecasts of what can be achieved by various strategies.

The operational gap can be filled by:

- Reducing costs, discounts, increasing prices, improving the sales mix, and
- Market penetration- increasing usage, market share.

The new strategies gap can be filled by:

- Extending the market- finding new user groups, entering new segments, geographical expansion
- Product development: deviation of products gradually, not large at once
Diversification into new product-market in terms of size, quality, type and price.

**New Products**

These will be required to maintain an optimal product range and the opportunities for new products should be highlighted by the marketing audit and subsequent SWOT analysis.

The new product development process involves a number of steps, each of which is important in determining whether the product is carried forward, amended or deferred/cancelled:

- The idea- an active search for products suitable for development;
- Initial screening process- to eliminate quickly non relevant products;
- Testing the concept- confirming that the market is receptive to the proposed product;
- Business analysis- how the product fits commercially with the existing business;
- Development- turning the idea into a marketable product;
- Market testing- verification of earlier market response; and
- Commercialization- full product launch.

**Positioning**

Position is your identity in the marketplace; how you want the market and your competitors to view your product or service. Your positioning will have an impact on every segment of your marketing.

Base your positioning on the benefits you offer, who your customers are, and how your competitors are positioned. Keep your positioning statement highly focused and succinct: for example, Acme Movers could be positioned as “the most dependable moving company in the Tri-City region”.

Two architects who specialize in kitchens could have totally different positions- one could be “the most innovative designer of modern kitchen environment”, while the other could be “the most cost-effective designer of traditional kitchens”. Whose kitchen do you think you would see in *Metropolitan Home* and whose do you think is targeted at the average buyer?

Some positioning tips:

- When creating your positioning statement, think in terms of extremes- the “most”, the “best”, the “fastest”, the “cheapest”, the “only”, etc.;
- If there is not much difference between you and your competitors, look for a meaningful customer want or need that has not yet been filled;
- Do not positioning just on image-you need to back up your positioning with substance; if you cannot, it will be a recipe for disaster.
Growth Strategy:

Forward Integration

Horizontal Integration

Competitor

Corporate /Business

Customers

Supplier

Backward Integration

Marketing Plan:
A marketing plan is a written document that details the actions necessary to achieve a specific marketing objective(s). It can be for a product or services, a brand or a product line. It can cover one year (referred to as an annual marketing plan), or cover up to 5 (sometimes referred to as five) years.
A marketing plan may be part of an overall business plan. Solid marketing strategy is the foundation of a well-written marketing plan. While a marketing plan contains a list of actions, a marketing plan without a sound strategic foundation is of little use.
The marketing planning process: In most organizations ‘strategic planning’ is an annual process, typically covering just the year ahead. Occasionally, a few organizations may look at a practical plan which stretches three or more years ahead.

Corporate mission: it can be thought of as a definition of what the organization is; of what it does: ‘Our business is……………..’.

Corporate vision: ‘sense of mission’, that is, a feeling that group has banded together to create something new and exciting. This is common in new organizations.

Marketing Audit (market plan tool):
The first formal step in the marketing planning process (tool) is that of conducting the marketing audit. The emphasis at this stage is on obtaining a complete and accurate picture. In this context some factors related to the customer, which should be included in the material collected for the audit, may be:
• Who are customers?
• What are their key characteristics?
• What differentiates them from other members of the population?
• What are their needs and wants?
• What do they expect the ‘product’ to do??
• What are their special requirements and perceptions?
• What do they think of the organization and its products or services?
• What are their attitudes?
• Are their buying intentions?
A ‘traditional’- albeit product-based-format for a ‘brand reference book’ (or, indeed, a ‘marketing facts book’) was suggested by Godley more than three decade ago:

1) **Financial data:** Facts for this section will come from management accounting, costing and finance sections.
2) **Product data:** From production, research and development.
3) **Sales and distribution data:** Sales, packaging, distribution sections.
4) **Advertising, sales promotion, merchandising data:** Information from these departments.
5) **Market data and miscellany:** From market research, who would in most cases act as a source for this information.

Furthermore, the structure of the facts book will be designed to match the specific needs of organization. This splits the materials into three groups:

1) Review of marketing environment: A study of the organization’s markets, customers, competitors and the overall economic, political, cultural and technical environment; covering developing trends, as well as the current situation.
2) Review of the detailed marketing activity: Marketing mix, in terms of the 4Ps (product, price, promotion and place)
3) Review of marketing system: A study of the marketing organization, marketing research systems and the current marketing objectives and strategies.

### Summary of Marketing strategic and planning:

- Long run planning to maximize the profit of sellers and satisfaction of consumers.
- Questions required in market literature:
  1) **How many real consumers are there?** (real consumers have purchasing power and afford goods and services)
  2) **Who are they?** Seeks to categories into different stratus: a) High purchasing capacity and b) Average purchasing capacity (if price increases then can’t buy)
  3) **Where is the marketer?**
  4) **What is the quality of products/services that the customers want?** (eg. marketing strategy in China: different quality and services variable according to economy in world)
  5) **What is the degree of competition?**
  6) **What is the type of market to sell the product?**
  7) **What is the government intervention, etc.**

The process of marketing planning encompasses all of the marketing skills. However, a number of these may be particularly relevant at this stage:

- **‘Positioning’**. The starting point of the marketing plan must be the consumer. It is a matter of definition that his or her needs should drive the whole marketing process. The techniques of positioning and segmentation therefore usually offer the best starting point for what has to be achieved by the whole planning process.
- **‘Portfolio Planning’**. In addition, the coordinated planning of the individual products and services can contribute towards the balanced portfolio.
- **’80:20 rule’**. To achieve the maximum impact, the marketing plan must be clear, succinct and simple. It needs to concentrate on the 20% of products or services, and on the 20% of customers, which will account for 80% of the volume and 80% of the ‘profit’.
- **‘4Ps’**. The 4Ps can sometimes divert attention from the customer, but the framework they offer can be very useful in building the action plans.
Marketing Research
Marketing research is a systematic and objective search for and analysis of information relevant to the identification and solution of problems in the field of marketing. It involves collecting, recording and making sense of all the available information which will help a business unit to understand its market. Objectively in research is all-important. Marketing research has sometimes been defined as “the application of scientific method of marketing”. The heart of scientific method is the objective gathering and analysis of information.

Marketing research is the function which links the consumer, customer, and public to the marketer through information - information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process.

Types of marketing research: (based on degree of coverage)

1. **External marketing research**: It is conducted within the market and competitive environment in which the company exists. Take the data from longitudinal sources (obtained across a Time horizon. Eg. body weight of children from 1 to 10 years), mostly use for the forecasting purpose.

2. **Internal marketing research**: It is based on the analysis of company data gained from information such as sales trend, changes in elements of marketing and advertising level. Take cross-section data (data taken from particular point of time and analyzing the whole industry. Eg. egg production, average body weight of children of 8 years)

Methods of marketing research: (Based on participation of respondents and researcher)

1. **Reactive marketing research** is information about the market place and the customers who inhabit it. It can involve us in asking questions, such as in a survey or during an interview. Equally it can involve experiments. Eg. Questionnaires, group discussion, in-depth interview, test marketing, field experiments, laboratory research.

2. **Non reactive marketing research** methods are based upon interpretation of observed phenomenon. They do not rely on data derived directly from respondents. Eg. Non participative, consumer panel, retail audit, desk research, syndicated research, internal research.
The Research Process

1. Problem formulation
2. Method of inquiry (objectives)
3. Research method
4. Research design
5. Select data collection technique (s)
6. Sample design
7. Data collection
8. Analysis & interpretation of data
9. Research Report/Conclusion

Evaluation Cost/Value of Research
Review of literature regarding the problem
Sample survey:
1. Random sampling, 2. Convenience sampling, 3. Quota sampling, etc.
Test of hypothesis (objective)

..........................Chapter 12 ends..........................
Chapter 13: **Consumer behavior and Supply chain management** (pp. 51-56)

**Consumer Behavior**

The fundamental understanding of consumer behavior and his needs is the centre of interest for successful marketing activity and is a necessary prerequisite to organizations for being market orientated and thus profitable. Most products eventually end up in private households even though they pass through a number of steps on their way from producer to end user. Producers and traders form vertical chain or network, called value chain, at the end of which is the consumer.

**Understanding consumer behavior is not only important for the producer but for all other actors in the chain. The value that the consumer puts on the goods or services limits what everyone else can get from the value chain.**

According to the study, consumer behavior is the study of what, why, how, when, and where does the market buy, and who the market is constituted of.

The cultural (sub culture, social class), social (reference group, family), personal (age, occupation, economic circumstances,) and psychological (motivation, perception, belief & attitude) factors of the consumers make them to purchase or not to purchase a specific product.

Studying consumer behavior for food product is a complex process that is affected by very diverse factors. Qualitative food choice model proposes three main criteria:

1) Person-related factors,
2) Properties of the food, and
3) Environmental factors affect consumer’s decision-making process in combination or interaction with each other.

**Concept of perceived quality**

The strategic importance of product quality is acknowledged at the macro level as well as at the micro level. At the macro level, product quality has been identified as a key variable in determining “national” competitiveness (i.e., competitiveness of a nation as a whole as distinct from the competitiveness of individual firms). At the micro level, product quality has been identified as an important variable for producers as well as consumers. Managers today accord quality its place on the list of paramount strategic issues since in many markets quality competition has supplanted price competition. There is a distinct trend that consumers are becoming more demanding about product. Consumers are now demanding higher quality than ever before, are willing to pay more for better products, and use quality as an important criterion in purchasing food products *(Steenkamp, 1986)*

In between the two extreme approaches of product quality-

a) **Subjective** (quality is considered synonymous with innate excellence and cannot be analyzed, but only recognized through experience), and

b) **Objective** (quality is measurable and verifiable superiority on some predetermined ideal standard/s) lies the concept of perceived quality. Perceived quality is the result of consumer perception.

The overall judgment is formed on the basis of visible or invisible product characteristics that may have actually been experienced, or are believed to be associated with the evaluated product.

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10 Steenkamp, J-B.E.M. 1989. Product quality: An Investigation Into the concept and how it is perceived by consumers. Summary and Conclusion, Wageningen University, Dissertation Number: 1253.
Concept of perceived quality attempts to mediate between objective product characteristics and consumer preferences. It stresses that perceived quality may differ from objective quality, and that consumers use cue (signal) to evaluate quality. Some work has been carried out to determine what consumers perceive to be high quality in particular products. For instance, Demyadas & Hoermann, 2008\(^{11}\) studied consumer behavior in regard to Apple Club Varieties in Hannover, Germany and reported that texture, size, color, origin, label, price of the fruit are considered by the consumers depending on their age, gender, household size, income, education etc. While some insight has been gained in understanding consumers’ concerns for food choice much remains to be learned, particularly about consumer perception on agricultural commodity purchase and consumption behavior in Nepal.

**Conceptualizing perceived quality in consumer behavior**

Perceived quality is ‘the degree to which a product fulfills its functions, given the needs of the consumers. This implies that there is not necessarily ‘one best quality’ for all consumers. Steenkamp (1989) proposed that quality perception process to have two stages - **quality cues and quality attributes**. Quality cues are concrete product characteristics that can be ascertained by the senses prior to the consumption and quality attributes are benefit-generating product aspects and cannot be observed prior to consumption. Olson (1972)\(^{12}\) categorized quality cues as **intrinsic and extrinsic**. Intrinsic cues are part of the physical product while extrinsic cues are related to the product, but are physically not part of it. Intrinsic cues are closely related to the physical product, which cannot be changed or experimentally manipulated without also changing the physical characteristics of the product itself. Appearance, color, shape, size, and structure may serve as intrinsic cues depending on the particular food in question. On the other hand, extrinsic cues can be manipulated or changed without the need to modify the physical product. Price, brand, advertisement, labeling are important extrinsic quality cues. The judgment on the performance of the product quality is based on quality attributes. Quality attributes subdivided as **experience quality attributes and credence quality attributes** are the utility-generating functional and psychological benefits provided by the product, which can only be ascertained after consuming the product. Experience attributes can be discerned after purchase or during consumption on the basis of actual experience of the product. Within the context of foods, taste is the most important experience quality attributes, including freshness and convenience. Credence attributes represent the characteristics that may be impossible to evaluate even after purchase and consumption. In many cases consumers need to have sufficient know-how and practice in order to evaluate the credence quality of a specific product or service. Desirable product benefits like **nutritional value, environmental friendliness, healthfulness, and way of production** are some of the chief quality attributes, which can be determined by consumers only after long use of the product as they cannot be experienced directly right on consumption/usage and one has to rely on the judgment or information of others that the product contains such a quality attribute. The conceptual model that integrates all the above explained quality cues and attributes, developed by Steenkamp (1989) is presented under.

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Figure: Conceptual model of the quality perception process (Source: Steenkamp, 1989)

Consumer behavior in terms of perceived product quality

Extrinsic Dimension
- Price, brand, store

Intrinsic Dimension
- Physical components of the product
  - Hedonic
    - Visual
    - Gustatory

Source: Adopted form Charters & Pettigrew, 2003

Supply Chain Management

The term supply chain management was coined by consultant Keith Oliver, of strategy consulting from Booz Allen Hamilton in 1982. Supply chain management (SCM) is the process of planning, implementing, and controlling the operations of the supply chain with the purpose to satisfy customer requirements as efficiently as possible.

A supply chain is a network of organizations contributing to the design, production, and distribution of a product from its inception to its consumption by the final consumers. Thus, supply chain management is the coordination and control of all activities within a supply

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chain, with the goal of maximizing value for the consumer. These activities frequently occur across multiple organization and geographic locations. Supply chain management focuses on four management activities:

1. Determining market requirements
2. Establishing and managing supply chain relationships
3. Managing and sharing information
4. Managing material production and distribution.

Figure: An example of an agrifood supply chain.

“Supply chain management is the cooperation between producers, processors, wholesalers, and/or retailers, to guarantee high quality and/or to minimize costs for a product or products”.

The cooperation /arrangements include aspect of marketing, economics, logistics and organizational behavior.

Types of supply chain management

Vertical coordination versus vertical integration

**Vertical coordination** is the organization of economic activity including all the ways of harmonizing the various stages of production, processing, and distribution through the supply chain. It includes strategic alliances which are agreements mutually entered into by two independent firms to serve a common strategic objective. Vertical coordination also includes formal written contracts. For example, a strategic alliance between a pork processor and pork producer to produce pig via a certain method at a certain quality.

**Vertical integration** is full ownership of the various stages of production, processing and distribution through the supply chain. Vertical integration is a subset of vertical coordination. Association between the producers when the output of own activity (firm) become the input
of same firm for another activity. For example, grass production in field either sale or fed to livestock.

Note: Output of one firm become the input of another firm is **horizontal activity**.

**Supply chain management problems**

Supply chain management must address the following problems:

- Distribution Network Configuration: Number and location of suppliers, production facilities, distribution centers, warehouses and customers.
- Distribution strategy: Centralized versus decentralized, pull and push strategies.
- Information: Integrate systems and process through the supply chain to share valuable information, including demand signals, forecasts, inventory and transportation etc.
- Inventory management: Quality and location of inventory including raw materials, work-in-process and finished goods.

**Activities/functions of supply chain management**

Supply chain management is a **cross-functional approach** to managing the movement of raw materials into an organization and the movement of finished goods out of the organization toward the end-consumer. Supply chain activities can be grouped into strategic, tactical and operational levels of activities.

VISION GOALS
The management components of SCM

Lambert & Cooper (2000) identified the following components which are:

1. Planning and control
2. Work structure
3. Organization structure
4. Product flow facility structure
5. Information flow facility structure
6. Management methods
7. Power and leadership structure
8. Risk and reward structure
9. Culture and attitude

..............................................Chapter 13 ends..............................................
Chapter 14: Production planning in agribusiness- planning production, risk management (pp. 57-62)

Production: Process of converting resources to output with the help of technology.

Production Plan: It is a blue-print which seeks the answer of the following questions: (1) what to produce?, (2) how much to produce?, (3) to whom it is to be produced?, (4) how to produce?, (5) where to produce?, and (6) when to produce?

Production Planning: It refers to process of preparing blue-print (i.e. production plan) which seeks answer the following question:

1. What to produce?
   - determined by price level of the commodity in economy and number of potential buyers which is depend on demand
2. How to produce?
   - depend on type of technology
3. Where to produce?
   - depend on comparative advantage (grow those where MR is higher. For examples, Fruits > Cereal in context to Nepal, Rice > Soybean in irrigated region). Agricultural export zone, Eg. Mustang for Grape, Jumla for Apple, Illam for Tea and High-mid Himalaya for livestock.
   - produced in those places where there is either low/no transportation cost and minimize transportation cost.
4. How much to produce?
   - depend upon demand and supply scenario.
5. When to produce?
6. For whom to produce?

Risk management Strategies

Risk and Uncertainty: Risk is uncertainty that affects an individual’s welfare and is associated with adversity and economic loss. It involves the probability of loss of income and resources of farmers, harm to their health and welfare. It refers to a situation in which one is not sure of outcome but probabilities of alternative outcome can be established and variability of outcome can be quantified. So, the probabilities of risk are possible to guess but those of uncertainty are not possible to guess. Risk are insurable but uncertainty not.

Agriculture is often carried out in the open air, and entails the management of inherently variable living plants and animals. So, it is widely recognized that a high level of risk and uncertainty typifies the lives of people in peasant economy. Though the terms risk and uncertainty are sometimes used interchangeably, they are not same.
Difference between risk and uncertainty:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Uncertainty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Imperfect knowledge that may result to adversity and loss where the probabilities of the possible outcomes are known</td>
<td>1. Uncertainty refers to situations where it is not possible to attach probabilities to the occurrence of events. The likelihood of their occurrence is never known by the decision maker or by anyone else</td>
</tr>
<tr>
<td>2. Probability can be estimated</td>
<td>2. Probability cannot be estimated</td>
</tr>
<tr>
<td>3. Possible to guess</td>
<td>3. Not possible to guess</td>
</tr>
<tr>
<td>4. Can be insurable</td>
<td>4. Can’t insurable</td>
</tr>
<tr>
<td>For example: Fail/pass= ½= 0.5&lt;1.</td>
<td>For example: Bird flue</td>
</tr>
</tbody>
</table>

How farmers manage these risks is greatly influenced by their attitudes toward or willingness to take risk. Knowledge of farmers’ attitude towards risk is of great importance to farmers, educators, agriculture researchers, and policy makers for the adoption of new farm technologies and the success of rural development programs (Wik & Holden, 1998)\(^\text{14}\). Based on attitude of the farmers towards risk and their willingness to take risk, they are generally classified as:

1) **Risk Averse**: Who is reluctant to accept a bargain with an uncertain payoff rather than another bargain with more certain payoff, but possibly lower expected payoff

2) **Risk Neutral**: Who is indifferent between certain and risky outcome.

3) **Risk Seeking**: Who prefers taking risk with the expectation of greater outcome.

The Risk averse attitude of the farmers leads to the following propositions (Ellis, 1998)\(^\text{15}\):

- It results in **sub optimal economic decisions** at microeconomic level of unit of production with more focus on income stability rather than profit maximization.
- Unwillingness or **s lowness to adopt innovations**.
- It leads to **mixed cropping farm practices and diversified agriculture** production rather than specialized farming practices.
- Poor farmers are more likely to be risk averse than the better off farm households, reinforcing social differentiation.
- It can be **reduced by increasing market integration** due to improved information, communication, market outlets etc.

**Major sources of risk**
Drought, floods, insect-pests, frost, hails, cattle epidemic, sudden fall in product prices, break down of machineries, defective seeds, delay in the transport of perishable commodities, theft, robbery, fire, labor strike, etc.


Type of risk
Farmers make decisions in a risky environment resulting from various sources mentioned below as suggested by (Hardaker et al., 1997)\(^\text{16}\):

1) **Production Risk (Yield Risk):** It comes from the unpredictable nature of the weather and uncertainty about the performance of crops or livestock, e.g. through the incidence of pests and diseases

2) **Price or Market Risk:** Prices of farm inputs and outputs face high fluctuations which poses risk to the farmer for decision making on how much of which inputs to use or what and how much of various product to produce

3) **Institutional Risk:** Changes in the rules by the government that affect farm production are another source of risk to the farmers.

4) **Human or Personal Risk:** Major life crisis such as death or prolonged illness of the farmer may themselves be a source of risk for the profitability of the farm business.

5) **Financial Risk:** It results from the sources through which the firm is financed

6) **Technical Risk**

Step of risk management

a. Identification of risky events,
b. Anticipation of the probable outcomes and their consequences,
c. Taking action to obtain a preferred combination of risk and expected returns,
d. Restoring the capacity of the producer to implement future risk planning strategies.

Risk management strategies in agribusiness

A. To cope with natural hazards (production risk) following policy aspects/management strategies are suggested in agribusiness:

1) **Maintaining reserve of cash, inventories, credit, etc. to solve unforeseen consequences.**

2) **Adoption of enterprises involving low risk**

   There are some enterprises where yield and price variability are much lower than others. Thus the inclusion of the enterprises with low variability in the farm plans provides a good way to safe guard against risk and uncertainty. For instance the yields and price of cereals are more or less consistent as compared to the horticultural crops. Depending upon the risk bearing ability, a farmer should the enterprises in which risk is minimum level seen under adverse farming condition. Farmers based on their own experiences and experiences of fellow farmers; generally know the farm enterprises that are low or high risk. It has generally been seen that enterprises involving high degree of risk also offer relatively a high rate of return under favorable conditions. Agricultural extension workers can also help the farmers in selecting the crops and livestock enterprises that may prove less risky to farmers. Generally vegetable production involves higher risk compared to grain production. Similarly, maintenance of improved breed of foreign cows involves higher risk but at the same time offer high return under favorable conditions.

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(3) **Contract farming**

Contract farming can be defined as an agreement between farmers and processing and marketing firms for the production and supply of agricultural products in predetermined prices. It offers following advantages to farmers:

- Production inputs and services are often supplied by sponsors,
- Help to introduce new agricultural technology and enables to learn new skills of production,
- Farmer’s price risk is reduced through contract in advance,
- Can help in opening of new markets, which would otherwise be unavailable to small farmers. Milk, vegetables, fruits and industrial crops can feel secure through this agreement.

(4) **Share cropping**

Those farmers who don’t have sufficient cultivated land and take land on rent from other farmers for cultivation may have to bear financial losses under situation of failure of crops. Such farmers can reduce risk by taking land on share cropping rather than payment of rent on cash basis (lease farming). Contrary to this, land owners would like to minimize their risk by renting out land on cash rent rather than on share cropping. In such a situation if demand of land is higher to supply, then land owners’ condition will dominate and if supply of land exceeds demand, tenants’ condition may prevail.

In the similar way, milch animals like cows, buffalos may be taken on the condition of payment of a predetermined value only after their calving rather than on cash payment basis. This would save the tenant from financial risk under the event of death of animal at calving or failure of calving.

(5) **Diversification in production**

Diversification is allocation of available resources in different uses. It is the very important useful and popular method of safeguard against risk in agriculture. Under a risk environment, a farmer may not specialize in a single enterprise over a period of time even if substitution is available. Instead he may choose several enterprises in some proportion over time so as to distribute the risk factor.

Diversification in production, marketing and processing helps to minimize the risk in agri-business. The purpose of diversification is that if return from one enterprise is low, the return from other may be higher. In rainfed areas, if a farmer takes a number of crops in Kharif season such as paddy, jowar, bajar, maize, soybean, etc. may realize some minimum level of production and income even under adverse conditions. However, if farmer takes few crops then under adverse condition there may be a great financial loss.

The system of minimizing risk through diversification has its cost also. If season is favorable for any specific enterprise, farmers may get low income through diversification. For example, if in any year, weather and price is favorable for paddy, then income could have been maximize by putting more area under paddy.

(6) **Flexible farm organization**

Flexible farm organization refers to a situation in which there is scope to adjust production plan in response to introduction of new enterprise. Through flexible farm
organization, farmer can derive higher income by utilizing opportunities. Flexibility can be of following type, i.e.

a) Time flexibility: Orchard plantation is relatively more rigid enterprise than annual crops like paddy, wheat, maize, etc.

b) Cost flexibility: Choosing the cost effective measures i.e. whether to use the labor or to use the machine.

c) Product flexibility: It aims at changes in production in response to price signals. In this category we consider the form of physical resources, which can be switched readily from one product to other.

(7) Maintaining financial reserve

(8) Vertical integration of farm enterprises

Farm enterprises to be produced on the farm can be combined horizontally or vertically. Horizontal (i.e. output of one firm become inputs of other firm) combination of enterprises refers that one farm product produced on the farm is not used as an input to produce other product on the same farm. For example, a farmer can produce paddy, wheat, sugarcane, milk for direct sale in the market but if paddy is converted in to rice, wheat into flour, sugarcane into gur and milk into ghee, on the firm itself, then it would be called vertical integration/combination of enterprises. This integration may give higher income and employment to the famers. Vertical integration (i.e. association between the producers when the outputs of own activity/firm become the input of same firm for another activity) bears low risk.

(9) Conglomeration

Situation of firm when it produces unrelated products. For example, TATA Company produces vehicles, mobiles, tea, etc.

(10) Adoption of complementary and supplementary enterprises

(11) Resistant varieties

One other way for managing natural risk can be the use of varieties that are resistant to pests, diseases and drought and that lead to stability of yield. However, they may not be more successful than the traditional varieties.

B. Measures to be adopted through government support and other agencies

Government intervention is vital to remedy the adverse impact of risk-aversion on agricultural productivity and growth. (Ellis, 1998) has grouped policy implications of risk-aversion broadly in line with the categories of hazard (production and market risk) they are designed to overcome, discussed as under:

1) **Insurance of crops, livestock and farm assets:** The most theoretically consistent and comprehensive proposal for alleviating the adverse impact of natural hazards is crop insurance but insurance for crop production faces challenging practical problems (USDA, 1999). Insurance has following benefits to the farmers:

   - It offers protection to farmers against the failure of crops and stabilize their farm income,
   - It improves credit worthiness of farmers in securing loan from financial agencies.

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It provides confidence to farmers in the adoption of modern agricultural technology,

- It reduces government responsibility to provide relief in case of crop failure,
- It reduces complete loss of farm assets.

“Credit Link Crop Insurance System (CLCIS) and loan is provided to the producers.

2) **Subsidies and support prices/price stabilization:** Agricultural products face high price variations due to seasonal fluctuations. The risk of market price instability can be dealt with the policy of price stability.

3) **Provision of institutional loan and marketing facilities (Credit provision):** Risk aversion among farmers may also result from lack of capital. So sound credit provision to the farmers may help to overcome resistance to the adoption of new technologies.

4) **Development of irrigation facilities:** The most obvious policy response to natural uncertainty is that of irrigation as an answer to rainfall variability to alleviate the risk of drought between one season and the next, and to smooth out within season fluctuations of water supply to plants.

5) **Agricultural research and extension/Information** (about market, market information, etc.): Where risk-aversion is attributed to inadequate information (about prices, input use, new seeds etc.) then information provision is considered a useful component of risk policy.

In addition to this, the social hazards like discrepancy between the landlord and the poor peasants to access to resources and land can be decided through land reform policies. And, the hazards caused by unfavorable policies of the State itself demand for greater political participation by the peasants themselves in decisions which affect their welfare.

.........................Chapter 14 ends..............................
Chapter 15: **Problems and prospects of agribusiness in Nepal** (pp.63-66)

**Nepalese agriculture (agribusiness) at a glance:**
Agriculture is the engine of development of Nepalese economy. It contributes about 32% of shares to Gross Domestic Product (GDP), supporting 65.6% of the economically active population. It also serves as the major sources of raw materials to the most of the agro-based industries. Among the agricultural commodities, horticultural crops play significant role in the agricultural development and economic growth of the country. Horticultural contributes 14% of the total agriculture GDP and of which vegetable contributes 7.2%.

The country is embarking upon intensification and commercialization of agriculture and diversification of crops. To achieve these, the production programs should be market oriented. In order to achieve this APP seeks to raise AGDP growth from 2.96% to 4.88% at the end of the plan (APP, 1995)\(^\text{18}\). The APP concentrates on four input investment priorities: irrigation, roads and power, technology and fertilizer. In the present context of growing economic and trade liberalization the Nepalese farmers, traders, and other marketing agencies need to be efficient and competitive. Appropriate environment, institutional arrangement, and relevant support are to be created and provided to promote their effective and sustainable participation to make farming and agribusiness competitive. Only from the third periodic plan (1965-1970) government is found more attentive to conceptualize the area of agricultural marketing and price policy. Then continuously all plan has laid down their efforts upon it, however, the outcomes are not found in expected manner. Various types of buying and selling arrangement between the producers and traders are prevailing but which mode of transaction is beneficial to the farmers and other actors has not been well explored.

Geographically, Nepal is divided into three regions the high mountains including the Himalayas (42.75%), the hills including valley (43%) and the Tarai (the flat land in the South) including inner valley (14.3%).

**Problems of agribusiness in Nepal**

1. Government policy (no legal binding and improper govt. policy)
   It is the goals and methods used to bring desirable change in socio-economic variables. For example, fertilizer policy, fiscal policy, infrastructure policy, etc.
   - In Nepal, policy formulation only for periodic plan and failure of policy due to change in government structure.
   - Implementation rate of policy is very low due to political instability.
   - Policy follow top to bottom approach rather bottom to top approach
   - Government policies are very ambitious.

• This may have happened because of lack of monitoring of the market prices by the government.

“Agriculture has been accorded the topmost priority in all the plan periods, except the second one, but the results have not justified the priority. Nepal, predominantly an agricultural country, used to export its agricultural products until several years ago has now turned into a ‘net foodgrain importer, even rice—the staple’ (Dhakal, et al., 2000, p.12).  

2. Lack of information/awareness among producers and traders (less research & extension)  
   Lack of market information about price, quality produced, quantity produced, etc. this is due to failure of the government information sector.

3. Lack of quality inputs  
   QQT, Quality: fertilizer, seed imported from India, Quantity: fertilizer, seed, irrigation are not in sufficient quantity and Time: whether in right time or not? Poor distribution of fertilizer, seeds, etc.

4. Traditional philosophy of farming (i.e. subsistence in nature)  
   Muscle drain (flow of young people for luxurious work/blue color work) and brain drain problems. So our farming system is dominated by traditional farmers and they are reluctant to use new technology and marketing then farm commercialization/mechanization is very low.

5. Uneconomic size of land holding  
   Around 47% household has less than 0.5 ha of lands (CBS, 2004). The subsistence orientation of Nepalese farmers limits contribution to income growth and poverty reduction.

6. Open border system.
   For example, India buys our rice in Magsir and sells us in scarce period.

7. Political instability/liquidity

8. Lack of appropriate technology

9. Poor adoption of technology (late majority and laggards adopters)

10. Topography (irrigation, transportation, landslides, flooding)  
   Undulated land structure and provide us climate diversity, but it is difficult for infrastructure construction. Furthermore, economic life of assets (roads, machines, building) is very low.

11. Lack of well developed transportation and communication facilities

12. Lack of credit (quality, quantity and time)  
   • Processing plant, quality improvement, time efficiency, etc. are required credit.
   • Our financing structure divert from agriculture to non-agriculture sector due to very poor recovery percentage (less than 60%).

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• Interest rate charged by financial structure is very high in agriculture, in our case 10-15% interest rate while in foreign countries about 5%. This variation/high in interest rate is due to less efficient banking system, i.e. banking spread (different between interest rate charged by bank to the interest rate charged by Nepal Rasta Bank).

13. Specialization is very rare because of poor risk bearing capacity of producers, i.e. risk averse).

Prospects/Opportunities and potential of agribusiness in Nepal

1. Availability of diverse climate (diversity in climate):
   Nepal is well endowed with various climatic conditions which are suitable for wide variety of agricultural products. For example, fruits like apple, walnut, pear and citrus can be successfully grown in temperate climates and mango, pineapple, vegetables, etc. can be grown in tropical climates. So “diversification” in crop production can be obtained by utilizing this climate variability/condition (i.e. niche based climates potentiality). Moreover, climatic diversification produces good opportunities for agribusiness promotion in Nepal.
   High Hills: Livestock production (yak, sheep, goat, etc.)
   Mid Hills: Tea, coffee, citrus, subtropical fruits as well as vegetables
   Tarai: It is a granary (store home of grains) of Nepal.

2. Availability of abundant labour (abundance labour):
   A vast majority of the rural population (about 80%) depends heavily on agriculture sector for income and employment. 65.6% of the labour force is involved in agriculture and women contribute almost 60% of agricultural labour force. This large portion of labour can be utilized in agribusiness activities so that agriculture would be transformed into a ‘dynamic growth rate’.

3. Changing government policy for import substitution and export promotion:
   Dramatic shift in the government policy in 1992 to provide the way for an ‘open liberal market oriented economy’ and provide favorable condition for the growth of agribusiness in Nepal. The government is gradually with drawing its direct involvement in areas where ever appropriate and has started opting for role that encourage the private sector to inter these areas. Thus government policy to produce ‘high value’ crops, livestock for meat, egg, dairy products, high value vegetables, fruits, silk, honey for the export promotion and import substitution can be another opportunity for agribusiness for its promotion.

4. Increasing demand for organic input
5. Little or low exploitation/use of natural resources
6. Possibility of producing organic product for export
7. High potentiality of vegetable seed production and possibility of export (eg. Raddish seed in Bangladesh)
8. Comparative advantage of climate factors for apple, orange and vegetable seed production in mid-hills of Nepal. This can be extended for earning foreign currency.
9. Possibility of qualitative sericulture and honey farming due to climate suitability
10. High potentiality of livestock development at commercial scale at the mountain and maintaining the demand-supply relationship with crops of Tarai and hills.
11. Possibility of exportable tea, coffee and cardamom production by maintaining the quality and increasing the production.

Chapter 15 ends

Chapter 16: **Agribusiness development and international trade** (pp.66-72)

**How has world trade developed in the last almost 60 years?**

![World merchandise trade volume by major product group, 1950-2006](image)

*Source: WTO*

**General Agreement on Tariffs and Trade (GATT) & World Trade Organization (WTO)**

Next to IMF (founded in 1944), it was planned to establish an International Trade Organization (ITO) ⇒ 1947: UN-Conference on trade and employment in Havanna:
Objective: to establish ITO. However, the US congress did not ratify ⇒ No ITO - instead: establishment of the GATT (1948)
1995: World Trade Organization (WTO) was established based on the Marrakesh agreement; GATT is part of the WTO

**GATT Principles:**

1. *Liberalization* (Preamble): The GATT aims at reducing tariffs and other trade barriers and abolishing discriminating behaviors in international trade.
2. *Most favored nation requirement* (Article I.1 GATT): Each member country which grants market access, especially decreased tariffs, to one member country, also has to grant the same rights to all other member countries.
3. *National treatment requirement* (Article III GATT): Imported products („like products“) have to be subject to the same regulations and requirements as similar domestic products.

**GATT Rounds**

- Dillon-Round (1958-61) – 26 countries: tariff reduction
- Kennedy-Round (1964-67) – 62 countries
  - Average tariff reductions of 35% for industrial products (Basis year: 1962);
Special rights for LDCs

- Tokyo-Round (1972-1979) – 102 countries
  - Further tariff reductions, esp. for industrial products
  - Agreement to prevent non-tariff barriers (‘Codes’) – health protection, technical standards, safety etc.
- Special treatment for LDCs (Generalized System of Preferences (GSP))

GATT / WTO Rounds

- Uruguay-Round (1986-94): 125 countries
  - “Agriculture round” => Agreement on Agriculture (AoA)
  - Establishment of WTO
- Doha, Qatar (11/2001): Introduction of the “Development Round”
  Role of agricultural trade for developing countries recognized; Correction of constraints and distortions on the world agricultural markets

World Trade Organization (WTO):

Basics

- Location: Geneva, Switzerland
- Established: 1 January 1995
- Created by Uruguay Round negotiations (1986-94)
- Membership: 153 countries (as of 23 July, 2008) + about 31 applicants (WTO “observers”).
- Secretariat Staff: 625
- Headed by:
  - Director-General Pacal Lamy (2005 – till)
  - Supachai Panitchpakdi (2002-2005)
  - Mike Moore (1999-2002)

World Trade Organization (WTO)

...is the only international organization dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible.

(Source: WTO Homepage; www.wto.org)

WTO Functions:

1. Administering WTO trade agreements
2. Forum for trade negotiations
3. Handling trade disputes
4. Monitoring national trade policies
5. Technical assistance and training for developing countries
6. Cooperation with other international organizations

General Agreement on Tariffs and Trade (GATT) & World Trade Organization (WTO)

<table>
<thead>
<tr>
<th>GATT</th>
<th>WTO</th>
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<tbody>
<tr>
<td>Trade agreement/ multilateral agreement (contracting parties)</td>
<td>Legally independent organization (members)</td>
</tr>
<tr>
<td>Only provisional after the failure of the ITO</td>
<td>UN-special agency</td>
</tr>
<tr>
<td>Rules apply to trade of products</td>
<td>WTO-obligations are more complex</td>
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<tr>
<td>Rules also apply to services and intellectual</td>
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Effects from supporting agriculture

Effects on developing countries (FAO, 1999):
- Destabilizing effects of subsidized agricultural exports on world market prices combined effects of high subsidies in developed countries and market opening in developing countries ⇒ strong increase in food imports and hardly increase in exports.

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**World Trade Report 2010**

Trade in natural resources

The World Trade Report 2010 focuses on trade in natural resources, such as fuels, forestry, mining and fisheries. The Report examines the characteristics of trade in natural resources, the policy choices available to governments and the role of international cooperation, particularly of the WTO, in the proper management of trade in this sector. (Source: WTO, Homepage)

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WTO and Nepal:

WTO stands for World Trade Organization. During 1995 (1st January), the GATT (General Agreement on Tariffs and Trade) collapsed and emerged the same into WTO by Uruguay Round negotiations (1986-94). Nepal was not the member of GATT and it had applied for membership in 1989, Nepal became the 147th member of WTO from 23rd April, 2004 (Baishak 11, 2061).

While acquiring the membership Nepal has agreed on different agendas. But general agreements related to agriculture are similar except some points. The general agreements related to agriculture as follows:

Basically, there are five agreements related to agriculture. They are:
1. Agreement on agriculture (AoA)
2. Agreement on sanitary and phyto-sanitary (SPS) measure
3. Agreement on technical barriers to trade (TBT)
4. Agreement on trade related aspects of intellectual property right (TRIPS)
5. General agreement on trade in services (GATS)

Among these agreements 1st and 2nd agreements are only related to agriculture while 3rd, 4th and 5th are nearly related to agriculture.

1. Agreement on Agriculture

This is the most controversial agreement in WTO.

It has three pillars (aspects):

I. **Domestic support**: reducing the subsidies in agriculture sector.
II. **Market access**: increasing access to market.
III. **Export subsidies**: reducing the export subsidies.

I. Domestic support:

Differentiation between domestic subsidies according to “distortionary effects” and categorization in boxes:

*Amber Box*: highly trade distorting
- Price support, input subsidies etc.
  Subject to reduction commitments - in industrialized countries by 20%; developing countries: 13%

*Blue Box*:
- Per ha payments (EU) and deficiency payments (USA)
- It was finally decided to change the blue box measures so that they qualify for the green box (“decoupling”).

*Green Box*: production and trade neutral
- State transfer payments (directly financed from the state budget); payments for research and extension service; also food aid

Not subject to reduction commitments

II. Market access:
- Transformation of non-tariff trade barriers (NTBs) in tariffs (Tariffication) ⇒
- Reduction of tariffs: Developed countries on average by 36% and developing countries 24%
III. Export Subsidies:
- Developed Countries: export of oversupply to the world market with the help of export subsidies: Export subsidies of more than 20% of the production value
- Reduction of the expenditures for export subsidies by 36% or of the subsidized export volumes by 21%

Assessment of the reforms:
- Only slow and limited success:
  - Protection on agricultural markets is still high; meat, milk, sugar: not or hardly liberalized
  - Markets with lower protection rates (fruits, vegetable, oilseeds): further opened
- Export and development potential for LDCs which are specialized in the export of agricultural products is lower than expected from the reduction requirements

The developed and developing countries should reduce the subsidies but Nepal is producing very less subsidy so no need to reduce it. Nepal has given only 1.3% of subsidy for agriculture production which can be increased to 10%. But subsidy can be given for agriculture research technology development and extension services. So, we don’t have to worry on the agenda of reducing subsidies.

Each and every countries should open their way for any others countries’ agricultural products. No country can ban others’ product. So, every country is most favored nations. But certain bound tariffs can be taken, and this tariff should be reduced in future. But border check can be done to the products and once it enters the border, then no discrimination can be done between the products. According to this agreement our products should with other nations inside the country. But Nepal can impose more tax. At present the import tax is 11%, but we can increase this up to 51% (after 2063, 42% on an average, 60% on rice, 50% on milk, and 40% on poultry can be taken). But this agreement does not disturb the other bilateral agreements on regional agreements like SAFTA and trade relations with India. Similarly the subsidy on exports of agriculture products should be reduced. But the least developed countries like Nepal should not reduce this subsidy. But transportation subsidy can be given in the case of these countries.

2. Agreement on sanitary and phyto-sanitary measures

According to this agreement, those imports which has serious effect on the health of plants, animals or human, these products can be banned. For this we need to construct the lab for testing the effect on health. For the countries like Nepal, this facility might not be available due to poor knowledge and manpower. So it is not possible to export such products with high pesticidal residue and we need to develop such mechanisms to avoid entry of such products to our nation too. This agreement is in action from January 1st 2006.

We have the challenge from agreement. For example our honey is famous world-wide but it was banned for certain duration by EU because of the residual effect.

But still we have the opportunities in the sense that most of the products on Nepal are produced with low input technologies and thus are organic in nature. Compared to other
nations our productions practiced involve low pesticides and fertilizer thus can attract organic market of the world.

3. Agreement on the technical barriers to trade (TBT)

There are other barriers to trade even the SPS measures prove to be fit. Those products which have low quality, poor labeling, poor packaging, and poor grading then even they don’t harm the health, these can be avoided from import but it should be insured that such low qualities are not produced in the importing countries. So the technical barriers to trade might include: quality, weight, color, packaging, leveling, date of manufacturing, date of expiry, production technologies and methods, and ecological impacts of the produce etc.

All the least developed countries are affected by this agreement. Because the least developed countries like Nepal have very low resource, has no equipments to meet such standards thus the products of these countries are highly affected by this agreements. The least developed countries are thus demanding the help from the developed countries for developing the infrastructures regarding this issue.

4. Trade related aspects of intellectual property rights (TRIPS)

Modern era is the age of ideas and knowledge, which can value currency as an increasing important area of the trade. The value attached to a products in this context, lies in the level of invention, innovation, research, design, and testing involved in technological development of such products. Many products that used to be traded earlier is low technology goods or commodities are now being traded as value added product which contain a higher level of technology (invention ) and characteristics (design) in their value e.g. New variety. The innovator creator of such products\ processes would like to secure rights to prevent others from using their invention-intellectual property (IP). These rights are known as intellectual property rights (IPR), Imply an ownership of ideas including literary, artistic work, invention, sign, or distinguishing goods of an enterprise and other elements of industrial property. The introduction of intellectual property rules of the plant and seeds under WTO’S agreement on trade related intellectual property rights (TRIPS) could damage the livelihoods of these 1-4 billion farmers worldwide and undermine food security and food sovereignty.

Intellectual property law has two main objectives:

- It provides legal rights to creators and innovators as a reward for their achievement, and
- It provides incentives for creativity and innovation and for economic, social, and cultural progress.

And important part of these objectives is the transfer of technology

The categories of intellectual property are:

- Trade marks
- Patents
- Plant variety protection etc.
In case of Nepal, Nepalese farmers are very ignorant and we don’t have strong mechanisms for formal lab testing. Thus our traditional rights and properties are on the verse of threats. We might to pay for using our technologies to other if we don’t be aware in time. It is our obligations to save our technologies, traditional know how properties (medicinal plant).
5. General agreement on trade in services (GAT)

This agreement opens the door for the foreign investment in the different sector. While accessing the membership of WTO by Nepal, had agreed on 74 different sectors and sub-sector but there are only two sector related to agriculture. They include:

1. Animal medical services, and
2. Technical experiment and investigation services.

In these sectors the foreign investments are expected to increase and the foreign investigators should work in coordination with Nepalese investor so the domestic investment is also liable to increase in this sector. So the farmers are expected to get regular and efficient services.

……..Chapter 16 ends………..
Chapter 17: **Impact of government policies on agribusiness enterprises**

(pp. 73-79)

Government policies on agribusiness enterprises is the goals and methods used to bring desirable change in socio-economic variables. The government intervenes in many markets, even markets which are highly competitive. The interventions can take a number of forms:

- **The control of prices**: Fixing prices, either above or below the free-market equilibrium,
- **Taxation**: Taxing of production or sale of various goods.
- **Subsidies**: Subsidizing the production or sale of various goods
- **Buffer Stock**: Taking over production
- **Regulation**: Various laws could be passed to regulate the behavior of firms. For example, various activities, such as the dumping of toxic waste, could be made illegal; or licences or official permission might have to be obtained to produce certain goods; or a regulatory body could supervise the activities of various firms and prevent any that it felt to be against the public interest.

**Why intervene?**

What reasons, then, are given for government intervention in agriculture? The following are the most commonly cited of the free market:

1. Agricultural prices are subject to considerable fluctuation (risk and uncertainty, lack of long term investment plan, cobweb theory of supply, etc.).
2. Farm incomes rise less likely over time than other incomes.
3. The lack of economic power of farmers.
4. Traditional rural ways of live may be destroyed.
5. Competition from abroad (cheap food imports from abroad).

**Objectives of the government intervention:**

1) To reduce price and income instability
2) To improve resource allocation pattern
3) To make the nation self sufficient in food and fibers and ultimately in export of goods
4) To raise the general economic standard of people
5) To provide guide for the producers of goods and services

“Regulate price through tax, subsidy, level of technology improvement, training, and research to generate best technology as well as price setting mechanism”.

**Impact of government policies:**

1. Prices control, i.e. minimum floor price, maximum price setting (ceiling price)

   a). Ceiling price (setting a maximum (low) price):

   ‘A price ceiling set by the government or some other agency. The price is not allowed to rise above this level (although it is allowed to fall below it)’.

   Price level fixed by government above which the producers are not allowed to sell. If no government intervention, the price is determined in equilibrium point where demand and supply intersect at a single price ($P_e$).

   *If the government sets a maximum price below the equilibrium (a price ceiling), there will be shortage: $Q_d - Q_s$ in Figure 1 below. Price will not be allowed to eliminate this*
shortage. In wartime, or times of famine, the government may set maximum price (ceiling price) for basic goods do that poor people can afford to buy them. Ceiling prices are as a means of keeping prices down for the consumers. The resulting shortage will cause queues (wait in line/line up), waiting lists or the restriction of sales by firms to favored customers. Alternatively, the government could introduce a system of rationing\(^\text{22}\). If it does, then black markets are likely to arise. This is where goods are sold illegally above the ceiling prices.

A major problem with ceiling prices is likely to be the emergency of black markets, where customers, unable to buy enough in legal markets, may well be prepared to pay very high prices: prices above \(P_c\) in Figure 2 below. There is where goods are sold illegally above the ceiling price. Effect of price control on black-market price is showed in Figure 2 below. Where, black marketers gain the extra revenue show by the shaded area.

Nevertheless, another problem is that the ceiling prices reduce the quantity produced of an already scarce commodity. For example, artificially low prices in a famine are likely to reduce food supplies: if not immediately, then at the next harvest, because of less being sown. In many developing countries, governments control the price of basic food-stuffs in order to help the urban poor. The effect, however, is to reduce incomes for farmers who are then encouraged to leave the land and flock into the ever growing town and cities.

Government fix price below \(P_c\). This increase the demand from \(Q\) to \(Q_1\) and producer will cut down supply it is decreased by \(QQ_2\) amount (‘Stock’). This decrease in price is for short run. If \(P_c\) (ceiling price) continues for second year, they will reduce area under production as if this policy goes on imposing, causes deviation in quantity demanded and quantity supply. In below Figure 3; as ‘ceiling price’ is same in second year, the producers supply less and increase the deviation of demand and supply (i.e. supply will decrease from \(Q_2\) to \(Q_3\) and \(Q_4\) gradually)

\(^{22}\text{Rationing: where the government restricts the amount of a good that people are allowed to buy.}\)
To minimize these types of problems, the government may attempt to reduce the shortage by encouraging supply: by drawing on stores, by direct government production or by giving subsidies or tax relief to firms. Alternatively, it may attempt to reduce demand: by the production of more alternative goods (e.g. homegrown vegetables in the times of war) or by controlling people incomes.

c) **Floor price policy (Setting a minimum(high) price):**

‘A price floor set by the government or some other agency. The price is not allowed to fall below this level (although it is allowed to rise above it)’

The government sets minimum prices (floor prices) to prevent them from falling below a certain level. It may do this for various reasons:

- To protect producers’ income (producers’ welfare). If the industry is subject to supply fluctuations (e.g. crops, due to fluctuations in weather) and if industry demand is price inelastic, prices are likely to fluctuate severely. Minimum prices (floor prices) will prevent the fall in producers’ incomes that would accompany periods of low prices.
- To create a ‘surplus’ (e.g. grains)- particularly in period of glut- which can be stored in preparation for possible future shortages.

In Figure 4, floor price is $P_f$, which is above the equilibrium price ($P_e$) creates surplus: $Q_s - Q_d$. Cost of production from all sports (eastern, western, etc.) are collected and mean cost of production are used to determine the minimum price (floor price) by collecting the data from all farmers of small, medium, large types. If no government intervention, then equilibrium as influencing at this situation Cost > Revenue (at $P_e$). Government intervention and fixes floor price then Cost = Revenue (at $P_f$).

**Buffer stocks:** The government can buy food and place it in store when harvests are good, and then release the food back on the market when harvests are bad. These buffer stocks are suitable only for stabilizing prices or farm incomes, not for providing long-term support to farmers. If there is good harvest ($S_{a1}$), the government...
buys up the surplus: \( Q_{s1} - Q_{sd} \) and puts it into store. If there is a bad harvest \( (S_{a2}) \), it releases \( Q_{d1} - Q_{a2} \) from the store on to the market so that quantity supply is \( Q_d \) in both times to fulfill normal demand in equilibrium price \( (P_e) \) (see Figure 5 below).

2. Subsidy

“Governments may feel that the market price is too low for farmers. On method of supporting farmers’ incomes, therefore, is to pay them a subsidy (per unit product) which they will receive in addition to the market price. This, of course, will encourage farmers to produce more, which in turn will depress the market price” (Sloman, J., 1998, p.91)\(^{23}\). Thus, subsidies may be given on ground of income distribution, to improve the income of producer and consumers. Eg. farm (input) subsidies, food subsidies, export subsidies.

In the context of Nepal, input subsidy is provided by Government of Nepal (GoN) for the production of rice, maize, millet, potato, pulse and oilseed. Whether we should subsidy or not in agricultural inputs? If subsidy on \( X_1 \) (input) then the production is increased as II stage (jump to “rational production zone in Figure 6) output. But, we shouldn’t produce III stage if we get full subsidy in input due to negative marginal return (>MP=0) and at this time condition the resources are used alternatively or if storage potential, storage/stored for long time. With subsidy in inputs, prices of inputs \( (P_x) \) will be decreased due to subsidy facilities. Marginal Value Product (MVP) = \( P_x \) (i.e. maximum profit), \( P_x \) is low due to subsidy so, MVP>\( P_x \), but we can’t charge \( P_x \) because government intervention, now to balance MPV and \( P_x \).

![Classical production function](image)

*Figure 6: Production function (with subsidy)*

Figure 7 illustrates the case of a foodstuff where the country is self-sufficient. Without a subsidy the market price would be $P_e$, where supply equals demand. Assume now that government wishes farmers to receive a price of $P_g$. If farmers do receive this price, they will plan to increase production to $Q_1$, which will push the market price down to $P_m$. The size of the subsidy that government must pay, therefore, will be $P_g - P_m$. The total amount of taxpayers money spent will be the shaded area. The effect of the subsidy is to shift the effective supply curve downward by the amount of the supply, to $S + \text{subsidy}$.

When some of the food is imported, the effect is slightly different. Let us assume, for simplicity, that the EU is a price taker in world markets. It will face a horizontal world supply curve of food at the world price. In other words, EU consumers can buy all they want at the world price. In Figure 8 the world price is $P_w$. Without a subsidy, domestic supply is $Q_{s1}$. Domestic demand is $Q_d$. Imports are therefore the difference: $Q_d - Q_{s1}$.

Assume now that the government wants farmers to receive a price of $P_g$. At that price domestic supply increases to $Q_{s2}$, but the price paid by the consumer does not fall. It remains at $P_w$. The subsidy paid per unit is $P_g - P_w$. The cost to the taxpayers is again shown by the shaded area.

Justification for the common agricultural policy (Subsidy objectives):
- Assure supplies of food
- A fair standard of living for those working in agriculture
- A growth in agricultural productivity
- Stable prices
- Reasonable prices for consumers

Impact of subsidy (negatively):
- Subsidies for the inputs like fertilizers, pesticides, equipment, etc. Countries with the largest subsidies used considered more fertilizer than with little or no subsidies (Aderson & Blackurst, 1992). Subsidies resulted inefficient level of fertilizer (so no environmentally-friendly production)
Because of subsidization the enterprise does not need to introduce these cost into price.

>> the price of pollution (environmentally less-friendly) commodity is too low in comparison to more environmentally-friendly commodities.

The subsidy distorts the economic price mechanism and causes a false allocation of resources.

**Dumping surplus in world market:** Export subsidies allow EU surpluses to be sold at very low prices on world market. This has doubly damaging effect on agriculture in developing countries: difficult to compete with subsidies EU exports in domestic market by domestic farms due to cheap imports of food.

3. **Taxes (Taxation)**

“A payment compulsorily collected from individuals or firms by central or local government”

Another example of government intervention in markets is the imposition of taxes on goods. This indirect taxes, as they are called include taxes such as value added tax (VAT) and excise duties on cigarettes, petrol and alcoholic drinks. The taxes can be a fixed amount per unit sold-

- a **specific tax.** An example is the tax per liter of petrol. Alternatively, they can be a percentage of the price or value added at each stage of production- an **ad valorem** tax. An example is VAT.

<table>
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<th>Specific Tax</th>
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<tr>
<td>-These taxes can be fixed amount per unit sold. An example is the tax per liter of petrol.</td>
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<tr>
<td>- An indirect tax of fixed sum per unit sold.</td>
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<th>Indirect Taxes / Ad valorem</th>
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<tr>
<td>-This taxes are not paid directly by the consumers, but indirectly via the seller of the product.</td>
</tr>
<tr>
<td>- Alternatively, they can be a percentage of the price or value adder at each stage of production- An <strong>ad valorem tax.</strong> An example VAT.</td>
</tr>
<tr>
<td>- A tax as the expenditure on goods indirect tax included VAT and duties on tobacco, alcohol drink and petrol.</td>
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When a tax is imposed on a good, this will have the effect of shifting the supply curve upward by the amount of the tax (see below **Figure 8**). In the case of **specific tax,** it will be a parallel shift, since the amount of the tax is the same at all prices. In the case of **ad valorem tax,** the curve will **swing** upward. At a zero price there would be no tax and hence no shifts in the supply curve. As price rises, so the gap between the original and new supply curve will widen, since a given **percentage tax** will be a larger absolute amount the higher the price.
But why does the supply curve shift upward by the amount of the tax? This is illustrated in Figure 9. To be persuaded to produce the same quantity as before the imposition of the tax (i.e. $Q_1$), firms must now receive a price which allows them fully to recoup the tax they have to pay (i.e. $P_1 + \text{tax}$).

The effect of the tax is to raise price and reduce quantity. Price will not rise by the full amount of the tax, however, because the demand curve is downward sloping. In Figure 9, price only rises to $P_2$. Thus the burden on incidence\(^{24}\) of such taxes is distributed between consumers and producers. Consumers pay to the extent the price rises (consumers’ share\(^{25}\) of a tax on a good). The producers pay to the extent that rise the price is not sufficient to cover the tax (producers’ share\(^{26}\) of a tax on a good).

Types of taxes
1. **Specific Tax**: levied on a good at a rate fixed in money terms per unit quantity, regardless of their price.
2. **Ad valorem**: Value added tax (VAT) is levied on the value added of a business.
3. **Lump Sum Tax**: is levied on a particular activity, regardless of its extent or the income of the taxpayers. For example, UK Television licenses.
4. **Expenditure Tax**: would be levied on income less net savings.

Open question: Discuss the impact of taxation and subsidy on functioning on agribusiness enterprises.

……………Chapter 17 ends……………

GOOD LUCK! ☺

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\(^{24}\) **Incidence of tax**: The distribution of the burden of tax between seller and buyers. It will depend on the price elasticity of demand and supply of the goods.

\(^{25}\) **Consumers’ share of a tax on a good**: The proportion of the revenue from a tax on a good that arises from an increase in the price of the goods.

\(^{26}\) **Producers’ share of a tax on a good**: The proportion of the revenue from a tax on a good that arise from the reduction in the price to the producer (after the payment of the tax).