Lecture Notes on Agribusiness Management (AECON 311)

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Concept of Agribusiness -

Agribusiness can be split into three economically interdependent sectors, that is, the input sector, the farm sector and the product sector as below:

1 The input sector provides supplies of inputs which include seed, fertilizer, chemicals, machinery, fuel and feed, etc. to farmers for production of crops and raising livestock.

2 The farm sector produces crops and animal or livestock products.

3 The product sector processes and distributes the crops and livestock products to the final consumers.

Agribusiness-

- The sum total of all operations involved in the manufacture and distribution of farm supplies, production operations on the farm and the storage, processing & distribution of farm commodities and items made from them.

Scope of Agribusiness

- The agriculture industry is so diverse, yet so interdependent, it is particularly difficult to describe. It comprises large corporate houses/units and small single proprietorships.
- It includes the manufacturing, distribution, storage, wholesaling, retailing and marketing of varied products, commodities and services.

Importance of Agribusiness

- The agribusiness, mainly aims to capture market and maximize profit through value addition in fruits & vegetables, milk and honey.
- Therefore, the recently drafted National Agricultural Policy (NAP) has accorded priority for promoting agribusiness activities at different levels for capturing growth in agriculture.

Characteristics or Features of Agribusiness

- 1 Diverse nature of business: There exist various kinds of business in the agribusiness sector i.e. of basic producers, wholesalers, brokers or CAs, processors, packagers, storage firms, transporters, financial institutions, retailers, food chains ,etc.
- 2 Existence around production areas: Agribusiness is established around several millions producers/ farmers that produce hundreds of different food and fibre products.
- 3 Dealing with farmers/ producers: Most agribusinesses deal with farmers both directly and indirectly. No other industry is set up principally around the basic producer of the raw product.
- 4 Variety and size of agribusiness organization: There is infinite variety in the size of agribusiness from one person and one family to giants/huge/tall organization. Most agribusiness tends to be small when compared to other businesses and industrial segments.
- 5 Scale and type of competition: Agribusinesses are small and compete in a relatively free market (Perfect Competition) where there are many sellers and buyers as well. The size of agribusiness does not allow monopoly. Product differentiation is also difficult.

- 6 Conservativeness of agribusiness: The workers (labourers) and producers have traditional philosophical touch, so they make agribusiness more of conservative type.
- 7 Decision making: Agricultural operation decisions are taken by families i.e. husbands and wives are often heavily involved in decision- makings.
- 8 Community oriented business: The agribusinesses tend to be community oriented in small towns and rural areas.
- 9 Seasonality: The agribusinesses are highly seasonal in nature due to planting and harvesting seasons and interdependence of specific enterprise.
- 10 Vagaries of nature: Agribusiness deals with vagaries of nature viz; drought, flood, insects, diseases etc. and everyone from producer, banker and manufactures is concerned with the weather.
- 11 Govt. programmes and policy: Govt. programmes and policies have direct impact on agribusiness. Many agricultural products are directly influenced by govt. programmes and regulations.

Types of Agri-business Management/Specialization Areas of Agribusiness Management

- I Basic areas

1. Production and operations management
2. Financial management & planning
3. Marketing and selling management
4. Personnel or human management

- II Other areas

5. Material management
6. Purchase management
7. Wholesale & retail management
8. Office management
9. Farm management
10. Export and import management.

Objectives of Agribusiness

1 Market standing -Position compared with competitors?
2 Growth and development -How much and how fast should growth be?
3 Profitability -What kinds and amounts of profit are feasible?
4 Employees relations and performance -What rewards and shares of income should go to employees and what is expected from them?
5 Investor relation and returns -What portion of earning should go to investors?
6 Public responsibility and relationships - What kind of business the company does in view of the citizen/public want to be?
7 Physical resources - What plant equipment, tools etc. are needed?
8 Products and innovation -What emphasis will be placed on new products and research?

MANAGEMENT

- Management has been dissected and described in many ways. Some describe management as a division of areas of responsibility such as production, marketing, finance and personnel (staff employed in institute).
- Others view management as coordinating and effectively utilizing available resources such as: i) Material ii) Machinery iii) Manpower iv) Money v) Methods, and vi) Markets. This approach often called the Six M concept. So Management is the process of achieving desired results with the use of available resources by performing the basic elements or functions of management as follow:
- 1. Planning
- 2. Organizing
- 3. Directing
- 4. Coordinating
- 5. Controlling
- 6. Communicating
- 7. Motivating
- On the whole management is seen as the body of knowledge.

- Other Functions of Management Decision making: It is the process by which a course of action is consciously chosen from the available alternatives for the purpose of achieving the desired results. Staffing: It is the process by which the managers select, train, promote and retire subordinates.

Objectives of Management

- 1. Proper utilization of resources
- 2. Improving performance
- 3. Mobilizing best talent
- 4. Planning for future
- 5. Development of resources
- 6. To incorporate innovations
- 7. To integrate various interest groups
- 8. Stability in the society. New inventions replace old ones
- 9. Technology, social process and structure are fast changing, so these changes need to be incorporated
- 10. Various interest groups (shareholders, employees, government compete with each for larger share in output. So these need to be integrated)

Importance of Management

- In order to give sophisticated life to people and a wide choice of consumption goods the good management improves the standard of living. Management carries ethical (rules of conduct) and moral behavior. Management was important in old societies also.
- However, the emergence of large sized organization and the changing nature of society and its constituents have made managing the things an uphill task. Even classical management experts have recognized it long back.

- Managerial Economics - Managerial economics is the applied part of microeconomics that focuses on the topics that are of greatest interest and importance to managers like the demand, production, cost, pricing, market structure, and government regulation. Management as a wheel with the manager as a hub (Discuss from diagram)

Fig. 3.1 Management process

- Manager- Manager is that person who carries the orders of management, provides the organization with leadership and who acts as a catalyst for change. Good managers are most effective in an environment that permits creative change.
- Characteristics of Good Manager
- 1. Knowledge
- 2. Decision making power
- 3. Self – reliance
- 4. Self-assertion
- 5. Regard for other and social sensitivity
- 6. Emotional stability
- Characteristics of a Good Management Policy
- 1. Objectivity: Should be related to the objective of the firm
- 2. Easily understandable: Should be stated in understandable words
- 3. Yardsticks for action: Must provide yard stick for future actions
- 4. Changeability: It should be reasonable and capable of being accomplished.

PLANNING

- Planning is basically a decision-making process in which an organization and its individual members are to take different courses of action over a period of time.
- It also refers to policy formulation and the establishment of goals. Planning is also deciding in advance what to do, when to do, how to do and who will do a particular task.
- In fact, it is the blue print for future action and bridges the gap between the present and future. Perception, foresight and minimizing risk is vital for a good planner.
- Planning, therefore, includes (1) the purpose, (2) setting up objectives, (3) laying down policies, (4) preparing strategies (5) rules (6) procedures, (7) programmes (8) budgeting (9) forecasting and (10) decision-making.

Definitions of plan and planning Plan-

- Philip Kotler: Planning is deciding in the present what to do in future. It is the process whereby companies reconcile/adjust their resources with their objectives and opportunities.
- Mc FARLAND: Planning is the process of selecting the best course of action for achieving the pre-determined objectives after making a careful evaluation of present conditions and future trends, e.g. raising organic produce.

Types of plans: based on nature of planning

- 1 Financial and Non- Financial plans - Most plans cannot be translated into actions if there is no finance. In fact, planning loses all its significance if sufficient financial resources are not mobilized. Plans that require financial resources are called financial plans. Plans related to physical resources of an organization may be called non-financial plans
- 2 Formal and Informal plans -Mere thinking by managers refers to informal plans. When an informal plan is finalized and prepared for implementation, it is considered to be a formal plan.
- 3 Specific and Routine plans- Any plan made with a particular objective is known as a specific plan. Day-to day normal objectives require some type of regular plan known as a routine plan.
- 4 Strategic and Functional/Action plans- Strategic planning is the overall planning of the enterprises objectives determined by the management. A plan made in a functional area like production, purchase, and marketing is referred to as a functional plan.

- 5 Long range and Short range plans- The definition of short and long range planning depends upon the organizational structure, nature of business, the kind of industry etc. Generally, a short –term plan refers to a period covering six to twelve months. A long range plan usually involves time interval of between three and five years. But modern concept is to plan for a decade or 2 to 25 years.
- 6 Administrative and Operational plans- An administrative plan provides the base for operative plans and this type of planning is done by the top and middle level management and operational planning by the lower level management.
- 7 Standing and Single use plans- Standing plans are repetitive in nature and are used again and again whereas single use plans are specific in nature and are used only for a particular purpose.

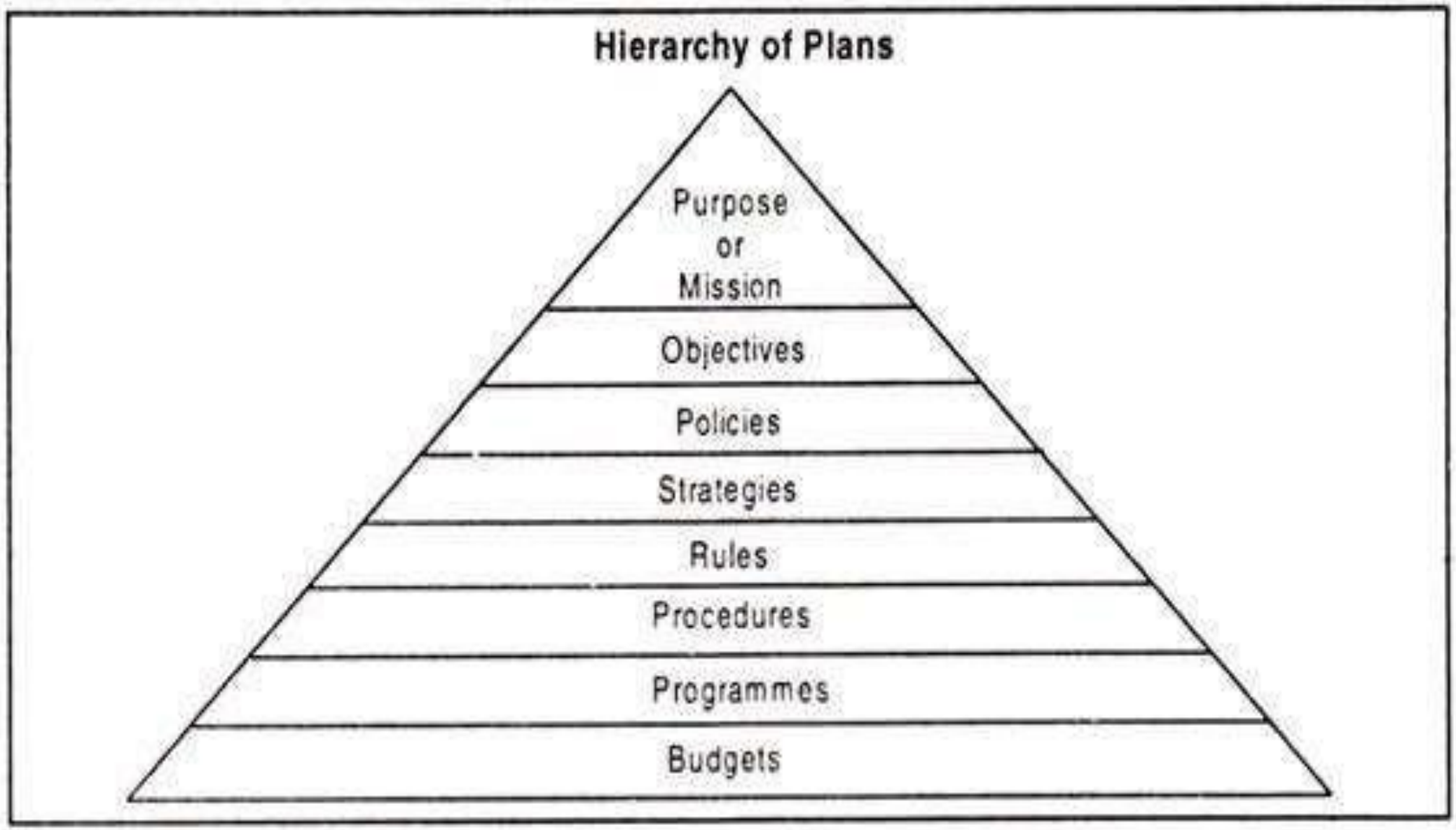
Six P’s of Planning

- 1. Purpose- To increase the market share.
- 2. Philosophy- Quality & consumer satisfaction
- 3. Premise- Assessment of strengths & weaknesses to face the changing environment
- 4. Policies- Production, marketing, finance, accounting policies
- 5. Plans- Objectives & action plans.
- 6. Priorities- Prioritize the scarce resources

Hierarchy of plans (Arrangement/order of plans)
A plan encompasses a future course of action.

All plans are also classified as:

- 1. Mission or purpose
- 2. Objectives or goals
- 3. Policies
- 4. Strategies
- 5. Rules
- 6. Procedures
- 7. Programmes
- 8. Budgets


Hierarchy of Plans
Purpose
or
Mission
Objectives
Policies
Strategies
Rules
Procedures
Programmes
Budgets

- **Mission or purpose:** The basic purpose of setting up of the business is called its mission. For instance, the purpose of a college or university is teaching and research. The purpose of a firm is production and distribution of goods and services.
- **Objectives or goals:** These are the goals or the end results towards which all management activities are directed. Objective is the term commonly used to indicate the end point of a management programme. Objective should be specific and set for different period. Well defined goals or clear objectives are essential for the smooth progress and growth of any business organization.

- **Policies**: Policies are guidelines to action. These are basic statements (in written form) serving as guides to the thinking and action of subordinates in repetitive situations. They provide broad guidelines. In other words, policy is a standing plan which is a guideline to decision-making, where a manager has certain discretion or it is a solution to recurring problems. When all the policies of a concerned are published in the form of a book or diary it is called policy manual. It is a written and definite statement of policy, readily available as a reference or guide for all managers.

- **Strategies**: It is also regarded as necessary planning. So strategy is a comprehensive and integrated plan designed to assure that business objectives are accomplished.
- Rules: A rule is a guide to action. It is in the nature of a decision made by the management regarding what is to be done and what is not to be done in a given situation. A rule is more Standing plans or repeated use plans Single use plans or specific plans rigid. A rule may or may not be a part of a procedure. Rules will not have any scope for discretion, as they are specific and definite. Breach of the rules usually carries a penalty. “No credit facilities beyond 30 days”, „”Smoking is strictly prohibited “, are examples of rules.

- **Procedures**: A procedure guides in detail how work should be performed, thereby providing a definite way. Procedures provide the manner in which a particular work has to be done. They also provide a sequence of steps to be followed in the execution of a plan. So the chronological series of steps constitute a procedure. If a programme indicates what is to be done, a procedure indicates how it should be done. Procedures are basically guides to action and not guides to thinking. Policies can be executed through procedures.

- **Programmes**: Programmes are sets of Objectives/ goals, policies, rules, procedures and other components required to carry out a course of action.
- Budgets: A budget is the monetary/quantitative expression of physical plans and policies to be implemented in the future period of time. A budget is a basic plan or statement defining the anticipated cost of attaining an objective. It is an appraisal of the expenses expected against the income anticipated for a particular future period of time. A budget is considered as both a planning and a controlling device. It may be expressed in terms of time, materials, money, man-hours, etc. But usually money budgets are the common ones.

Steps in planning and their execution

- 1. Perception of opportunities or defining the problem
- 2. Establishing objectives
- 3. Establishing the planning premises*
- 4. Identification of alternatives
- 5. Evaluation of alternatives
- 6. Selection or choice of alternative plans
- 7. Formulation of supportive plans
- 8. Setting timings and sequence of operations
- 9. Participation and follow up

Characteristics of a sound plan

- 1 Efficient use of resources: The plan should provide for efficient use of resources such as labour, power and equipment.
- 2 Adequate size of business: The plan should provide for adequate size of business
- 3 Avoiding heavy risks: It should avoid excessive risks
- 4 Flexibility: It should provide flexibility and too much rigidity be avoided.
- 5 Use of local wisdom: Utilize the farmers‟ knowledge, training and experience and take account of the farmers‟ likes and dislikes.
- 6 Marketing facilities: Give consideration to efficient marketing facilities
- 7 Modern technology: Provision for the use of modern agricultural methods and practices.
- 8 Market potential: The plan should take account of price prospects
- 9 Credit facilities: Provision for obtaining, using and repaying the credit.
- 10 Farm physical characteristics: Take account of soil, climate and topography.
- 11 Simplicity and reasonability: A good plan must be simple and understandable. It should be reasonable and possible to perform.

ORGANIZATION

- It is a structure involving large number of people engaging themselves in a multiplicity of tasks, a systematic and rational relationship with authority and responsibility between individuals and groups. It involves dividing the entire work into manageable units, departmentation, decentralization, delegation and span of control. Thus corporations, armies, schools, hospitals, churches, prisons etc. all are organizations. But tribes‟ ethnic and friendship groups and families are not organizations because they do not involve any significant amount of conscious planning or deliberate structuring.

Staffing

- It is the process of human resources planning, that is, recruitment and selection of best candidates, training them effectively, inducting them, rewarding them and having regular and effective communication with them. It calls for comprehensive manpower planning. Staffing has become one of the very important functions of management, along with planning, organizing, directing and controlling. Staffing has become very significant as it involves a lot of investment in the recruitment, selection, training and placement of workers. So to make the whole exercise meaningful, the best available people are to be secured and their skills and abilities developed for the benefit of the organization.

Motivation

- A worker is basically a human being. He is a person first and then a worker. Every manager has to understand that a worker cannot be considered a mechanical system. A worker has to be inspired and actuated to accomplish the objectives of an organization. An order issued may not work, but, an order accepted will be executed. To accept an order and to execute it with interest and vigour requires an element of motivating. Motivation is the process of creating a sense of responsibility and special interest in the work. It increases the desire to work; it is enthusiasm to work.

- Motivation is the process/ act of stimulating someone or oneself or the employees by providing incentives and encouragement to get the desired course of action. Good motivation results in speedy, efficient, successful, forward-moving management while poor motivation can result in a discouraging reversal.

- **Ordering**: Order giving or ordering is one of the most important elements of direction. Ordering can be defined as a directive to subordinates as to what is to be done or not to be done in the execution of work for achieving organizational objectives. The definition of ordering suggests the following implications: i In order- giving process, a personal relationship in direct line of command from superior to subordinate is implied. This relationship is not reversible. Two managers of equal rank cannot have this relationship. Similarly, except for functional authority the relationship does not exist between a superior in one Department and a person of lower rank in another. ii Another implication of an order is that it is enforceable. A superior can employ sanction against his subordinates who does not carry out an order or who does so in an inappropriate manner. iii The order is given and enforced to achieve organizational objectives. As such, specific and clear order serves organizational purpose.

- **Leading**: By leading we mean a dynamic man to man relationship between a manager and his subordinates. Leading consists of the process of utilizing techniques in issuing instructions and making sure that operations are carried on as originally planned. Leadership is the process of influencing and supporting others to work enthusiastically towards achieving objectives. Leadership is the ability to build up confidence and zeal among people and to create an urge in them to be led. To be successful leader, a manager must possess the qualities of foresight, drive, initiative, self confidence and personal integrity. Leadership is viewed from three points of view: 1. Democratic 2. Autocratic 3. Charismatic

- **Supervision**: Supervision is an important element in the process of directing/ leading. It involves actual transformation of plans into action by observing the work of subordinates with authority. Supervisors provide day-to-day guidance and instructions to the operative workers. Supervisors are also known as first-line managers, or overseers, section head, etc. Supervisors have direct link with the actual workers.

- The industries manufacturing input for agriculture or those processing agricultural output and those industries which are supported by agricultural goods are known as agro- industries.

Types of Agro- Industries

- 1 Processing industries
- 2 Supply industries- The processing industries, process agricultural produce for further use while supply industries are those which produce inputs for agriculture. These are further grouped into four categories

Processing Industries

- i) Agro produce processing units e.g rice mill
- ii) Agro produce manufacturing units e.g sugarcane factories Supply Industries
- iii) Agro inputs manufacturing units e.g. fertilizer factories
- iv) Agro service centre e.g. repair and service centre for tractors, etc

- Industrial estate and industrial area Industrial estate(s): It is specific area zoned/earmarked for industrial activity in which infrastructure such as roads, power and other utility services are provided to facilitate the growth of industries and to minimize impacts on the socio economic aspects and environment. Industrial estates should maintain safe distances from residential areas (for example, 100 meters for small industries with minimal environmental hazard and at least 1 km for very polluting industries). Industrial area(s): It is an area where there are commercial, manufacturing, factories and other such businesses. It is also a non residential area.

Role and Scope of Agro Industries

- 1 Play a vital role in economic development through the development of several processing industries like malt extracts, potato chips, juice manufacturers, perfumery and pharmaceutical industry
- 2 Means for equitable distribution on national income
- 3 Generate employment opportunities
- 4 Create both backward and forward linkages
- 5 Avoid wastage of perishable/ seasonal agriculture products by conversion into different processed products by way of value- addition
- 6 Increase the life of agriculture products
- 7 Help to increase export earning from export of processed agriculture products
- 8 Stimulate the growth of agriculture sector in particular
- 9 Increasing income of farming community in general

- Future Potentials of Agro Based Industries Now, the time is ripe for another revolution, as we need to look at agriculture from a global perspective. The states have to now look beyond the production aspects to provide a further boost to agriculture and related issues of marketing, processing, value addition in commodities like food grains, oil seeds, fruits, vegetables, floriculture, spices, medicinal plant produce, dairy products and meat products. The demand pattern of agricultural commodities for the domestic market is shifting as a result of increasing incomes, faster urbanization and changing eating habits, at the same time demand for quality production will play a major role in the coming time for our agriculture due to advancement in the field of bio-technology and introduction of Hi-tech cultivation practices.

IMPORTANCE OF EMPLOYMENT IN AGRO- INDUSTRIES

- Agro- based industries have been accorded a prominent position in National Employment Policy. This sector accounted for about 40 % of factory sector employment, 26 % of total output and 21% of value addition in the organization sector. Further, the sector has generated employment at low level of capital (Rs. 48000) per person.

- Village Industry Village industry means any industry located in rural areas of township, which produces any goods or renders, any services with or without use of power and in which the fixed capital investment per head of an artisan or worker does not exceed Rupees fifty thousand (Rs 50,000) in plant / machinery, land and building.
- Broad classification of village Industries
- 1 Mineral based industry
- 2 Forest and agro industry
- 3 Food industry
- 4 Handmade paper and fibre industry
- 5 Rural engineering
- 6 Service industry

Steps in Agro Processing Industry

- 1 Selection of product for processing
- 2 Project appraisal report i) Total capital investment and source of capital
- 3 ii) Returns on investment iii) Projected balance sheet for 5 years iv) Cash flow and funds flow v) Break-even analysis vi) Technology, machinery and raw material suppliers vii) Market survey
- 3 Basic infrastructure and resource endowments (provisions)
- 4 Selection of technologies and its processes
- 5 Manufactures of machinery and their suppliers
- 6 Production capacity
- 7 Vat no., PAN no., professional tax no. etc
- 8 Basic license and permissions required (i) Provisional small scale industry (ii) NOC Himachal Pradesh state Pollution control Board (iii) Food product order (FPO) (iv) Food safety certification (HACCP, KOSHER and Global GAP) (v) ISO 14000 etc. (vi) Other licenses – weights and measures, etc.
- 9 Marketing system and strategies
- 10 Quality standards and specification
- 11 Agribusiness policy for economic stability and sustainability

- Managerial or Management Problems and Constrains of Agro- Business or Agro Industries
- 1. Shortage of materials and power
- 2. Lack of adequate finance
- 3. Outdated technology
- 4. Inadequate marketing facilities
- 5. Weak organization and management
- 6. Lack of trained personnel 32
- 7. Lack of research and development (R&D)
- 8. Lack of infrastructure facilities
- 9. Lack of modern machinery
- 10. Labour problem
- 11. Production problem (Agro based units are labour intensive to shift to modernization they are to plan about the technique and product planning)
- 12. Social environment for industry not very conducive (our farmers are illiterate, superstitious, conservative and unresponsive to new agriculture techniques)
- 13. Lack of awareness and easy access to low cost and appropriate technology

Measures taken by the Government or Institutional Arrangements to Solve the Problem of Agro- industries

- 1 Protective measure (i) A number of products have been reserved for exclusive production in the small sector. (ii) Restrictions have been imposed on certain products of the organized sector to enable the small-scale industries to compete successfully in the market. The GOI proposes to provide legislative protection to agro – industries.
- 2 Promotional measures
- I Credit and Finance Increasing sum of money has been earmarked under the successive five year plans for the development of the ago industries
- II Marketing Assistance Central and state Government departments extend price preference in the purchase of goods produced by small scale units. DGSD (Directorate General of Supplies & Disposal) give preferences to small scale units in making its purchases. Assistance is provided to agro industrial units in securing orders from government departments and defence agencies. The National Small Industries Corporation (NSIC) helps small firms in this matter.
- III Allocation of raw material Scarce and imported raw materials are provided at reasonable prices and on priority basis. Recently the Govt. has decided to open depots for buffer stock and bulk supplies of critical raw material for the agro industries. Quota allocations of scarce raw materials for example steel are secured for the agro sector on a preference basis. Imported components and equipment's are allocated to agro industries on priority basis.
- IV Technical Assistance Technical assistance is provided to agro industries in the adoption and use of improved tools and methods of productions. In order to improve the quality of their products in respect of style and finish, assistance is provided in the design and development of the products. The technical assistance is provided by the National Small Industries Organization (NSIO) through its service institutes and extension centers.
- V Industrial Estate The government has developed industrial estates to provide industrial sheds to the agro industrial entrepreneurs at concessional rates.

Policies and Programmes to remove disabilities

- i) Credit and Finance:
- ii) Marketing Assistance:
- iii) Allocation of Raw Material:
- iv) Technical Assistance
- v) Industrial Estate

- Agriculture has been a way of life and continues to be the single most important livelihood of the masses. Agricultural policy focus in India across decades has been on self sufficiency and self reliance in foodgrains production. Considerable progress has been made on this front. Foodgrain production rose from 52 million tonnes in 1951-52 to 244.78 million tonnes in 2010-11. The share of agriculture in real GDP has fallen given its lower growth rate relative to industry and services. However, what is of concern is that growth in the agricultural sector has quite often fallen short of the Plan targets. During the period 1960-61 to 2010-11, foodgrains production grew at a compounded annual growth rate (CAGR) of around 2 per cent. In fact, the 9th and 10th Five Year Plans witnessed agricultural sectoral growth rate of 2.44 per cent and 2.30 per cent respectively compared to 4.72 per cent during 8th Five Year Plan. During the current 11th Five Year Plan, agriculture growth is estimated at 3.28 per cent against a target of 4 per cent. The approach paper to the 12th Five Year Plan emphasizes the need to "redouble our efforts to ensure that 4.00 per cent average growth" is achieved during the Plan if not more. Without incremental productivity gains and technology diffusion across regions, achieving this higher growth may not be feasible and has implications for the macroeconomic stability given the rising demand of the 1.2 billion people for food. Achieving minimum agricultural growth is a prerequisite for inclusive growth, reduction of poverty levels, development of the rural economy and enhancing of farm incomes. Agriculture including crop and animal husbandry, fisheries, forestry and agro processing provides the underpinning of our food and livelihood security. Agriculture provides significant support for economic growth and social transformation of the country. As one of the world‟s largest agrarian economies, the agriculture sector including allied activities in India accounted for 14.7 per cent of the GDP (at constant 2004-05 prices) in 2010-11 compared to 18.9 per cent in 2004-05 and contributed approximately 10.2 per cent of total exports during 2008-09. Notwithstanding the fact that the share of this sector in the GDP has been declining over the years, its role remains critical as it provides employment to around 52 per cent of the workforce

- The agricultural growth in India declined during the post reform period, particularly since the mid-1990s as may be noted from Table 1 given below. Appropriate policies are needed for achieving growth rate of at least 4% in agriculture and increase in income of farmers. To frame these policies, it is important to identify the policy issues and the needed reforms in agriculture. There is need to take action on both the demand side and the supply side to raise the overall growth in agriculture. It may be noted that more than 80% of India‟s farmers belong to the categories of small and marginal farmer with an area of more than 40%. So the support system and policy changes have to be tuned in such a way that they improve productivity and income of the small and marginal farmers.

- The needed policies are as follow:
- (A) Demand side intervention

(1) Mismatch in cost - price (price policy): Not only has agricultural growth been low in the last decade, the prices received for agricultural product have also failed to keep pace with the cost or general piece level as such profitability has declined. The GOI, follows a Minimum Support Price (MSP) Policy for 24 major crops, including cereals, pulses, oilseeds, sugarcane and tobacco. The CACP recommends levels at which MSP should be fixed based on several considerations such as: (i) cost of production, (ii) changes in input prices, (iii) input-output price parity, (iv) trends in market prices, (v) demand and supply, (vi) inter- crop price parity, (vii) effect on industrial cost structure, (viii) effect on cost of living, and (ix) effect on general price level, etc. Among these factors, the cost of production is the most important factor in determining minimum support price.

- (2) Macro policies and agriculture:

Several modeling exercises suggest that a 4% growth of agricultural will not be sustainable from the demand side unless aggregate GDP growth is much higher than 8%.

The steps needed for this are:

(i) Introduction of NREGA now MGNREGA

(ii) Expanding excess and improving quality of public sector schools and health facilities.

(iii) Improvement in rural connectivity through Bharat Nirman: (Bharat Nirman is a time bound business plan for action in rural infrastructure over the four –years period (2005-2009). Under Bharat Nirman Programme, action was proposed in the areas of irrigation, rural roads, rural housing, rural water supply, rural electrification and rural telecommunication connectivity)

- (iv) Irrigation & Water Management: Water must be recognized as a scarce resource and every drop needs to be used efficiently but some existing policies followed by state governments contribute to the problem. Continued provision of free power by all states is leading to an increase in critical and overexploited areas of groundwater use (29% blocks of the country). Watershed management, rainwater harvesting and groundwater recharge can help augment water availability in rainfed areas. An estimated 80 million ha needing treatment and average expenditure of Rs 10,000 per ha require Rs 80,000 crore during 11th plan. All these programmes need to be converged or supplemented with employment guarantee programme.

- (v) Agricultural Research: To sustain the growth in agricultural productivity in the long run, continuous technological progress is must. In the 11th five year plan attention has been focused on National Agricultural Research System (NARS) to strengthen its basic research component through the identification of strategic research pathways. The whole agricultural research system needs to be thoroughly revamped on the advice of high power committees chaired by Dr M S Swaminathan and Dr R A Mashelkar

- (B) Supply Side Strategy
- (1) Identification of constraints: Identification of constraints and policy distortions in creating yield gaps in cereals, pulses and oilseeds and to increase them in low yield regions
- (2) Lack of knowledge: The NCF has observed knowledge deficit for which farmers need effective links to universities and best practices through the revival of extension system which has collapsed in most states due to constraint on non-plan expenditure.
- (3) Soil testing and optimal nutrient requirements: Soil testing is hardly practiced and farmers use imbalanced doses of nutrients with excessive use of nitrogenous fertilizers (subsidy oriented) which has negative effective on productivity.
- (4) Credit: Lack of the credit at reasonable rate is a persistent problem and has reflection on the collapse of rural cooperative credit system and has led to excessive dependence on informal sources at exorbitant interest rates. This has pushed the farmers in excessive indebtedness.

- (5) Diversification: Accelerated agriculture growth require diversification into horticultural and floriculture implying structured changes in the relation between agriculture and non agriculture. Diversification requires effective marketing linkages in terms of domestic consumption, agro-processing and export.
- (6) Contract farming: Attracting corporate investors to establish linkages with farmers and markets and provision of necessary inputs, extension and other advice .Ex of SEZs presently 75 operational in India

- (7) Risk Management Strategies/protection of farmers against risks: Failure of seed resulting low yields than expected, proving in fructuous bore wells be tackled by provision of crop insurance schemes. AIC has been directed to start a weather-based crop insurance scheme as an alternative to NAIS.
- (8) Agro-climatic zone specific strategy: The state in consultation with centre should concentrate on framing and implementing those agricultural strategies which cater to the needs of different agro-climatic zones.
- (9) Rural non farm sector: The ultimate solution for the reduction of land is to improve rural non farm sector and planned urbanization. At the economy level, the demographic pressures on land have been increasing significantly in India and urban areas have their own problems of demographic pressures. As a result, rural non farm sector becomes an escape route for agricultural workers. In order to increase wages in agriculture and to shift the workers to improve productive areas, rural diversification is required.

CAPITAL MANAGEMENT

- Capital: It is one of the factors of production other than land from the use of which an income is expected. Chapman defined capital as that wealth which yields an income or helps in the production of further wealth or helps in the earning of income. Capital has also been defined as “produced means of production”. Karl Marx in Das Capital argued/defined capital as a crystallized form of labour. That it (capital) consisted merely of labour that had been employed in the past. Land and labour are primary or original factors of production. But capital is not a primary or original factor; it is a “produced” factor of production. Capital has been produced by man working with nature. Hence capital may also be termed as man-made instrument of production.

Characteristics of Capital

- 1 Capital is the result of labour
- 2. Capital is the result of saving
- 3. Capital is productive and helps in enhancing efficiency
- 4. Capital is prospective (leading to success) to anticipate future
- 5. Capital is temporary and thus involves the element of time
- 6. Capital is a mobile factor
- 7. Capital is a submissive factor

Functions of Capital

- 1. Supply of raw material
- 2. Supply of appliances (tools) and machinery
- 3. Provision of means of transport
- 4. Provision of subsistence
- 5. Provision of employment

Classification of Capital (Based on use) Capital can be divided into two groups:

- i) Fixed Capital: These are those durable use producer goods which are used in production again and again till they economically become unfit for use e.g. machinery, tools, railways, tractors, factories, etc.
- ii) Working Capital: These are those single-use producer goods which are used at once in one production cycle e.g. seeds, manures, fuel, raw material for process, stored irrigation water, etc.
- Capital based on source of acquisition
- i) Equity capital: It is the capital obtained from own savings, gifts, etc.
- ii) Debt capital: It is the capital obtained from borrowed funds.
- Capital based on contribution
- i) Issued capital: It refers to that part of authorized capital of a company which has been subscribed by investors through shares.
- ii) Paid up capital: It is that part of the capital which is subscribed by the share holders.

Capital Formation/Capital accumulation-

Capital formation means increasing the stock of real capital in a country like that of machines tools, factories, transport equipments, materials, electricity, etc. All these are used for the future production of goods.

Role / Importance of Capital

- 1. Timely performance of crucial, seasonal and time bound operations.
- 2. Uniform application of various inputs.
- 3. Drudgery of human labour and unhygienic operations could be overcome.
- 4. Upkeep of draft animals can be avoided and resources like land and labour can be used in some other options of production enterprise.
- 5. Reduces labour use
- 6. Large scale operations are possible.
- 7. Higher returns in addition from custom hiring
- 8. Social and psychological satisfaction
- 9. Quality of product can be improved, e.g. mechanical grading, mechanical shelling of maize
- 10. Scientific storage, transportation and processing.

Cost concepts and Cost principle

- This is an important principle in deciding to make investments. This also helps upto what extent the investment should be made in an enterprise.
- There are two main costs.
- 1 Fixed cost: This cost is there whatever may be the level of production but it can be reduced on per unit basis if the scale of production is increased.
- 2 Variable cost: This cost varies with the level of production. This classification is for the short run but in the long-run the total cost become variable cost.
- 3 Total cost= sum of 1 &2 Discuss other 3 average cost & one MC here.
- Cost Theory: The theoretical concepts of costs are in terms of:
- (a) short run cost & (b) Long run cost Short run cost: In this the price is equal to marginal cost i.e. MR = MC=Px Long run cost: The price is equal to sum of prime (variable) cost, supplementary (fixed) cost and risk cost to cover unfavourable yields and unfavourable price possibilities.
- Sunk costs or Retrospective costs: The costs that have been already been incurred.
- Prospective costs: The costs to be incurred in the future are called prospective costs

- So under the managerial decision making process, the present and future costs have to play their significant role. These principles are: Compounding: It is the procedure to find the future value of a present sum. Discounting: It is the procedure to find the present value of future sum. Present worth overtime PV/PW = R Returns obtained at future date (1+r)t If the present worth of future revenue is less than the investment it would be unwise to invest the money in that activity to get the future revenue at the end of a certain number of years.

- Points to be considered while deciding the size of machine as capital (Management of Capital Equipment) Since there is large variety of machines and equipment from which every farmer has to choose, within the framework of his organization, in order to reduce per-unit costs in the long run and achieve the highest returns per unit of time. Once it is decided to get the work done with the machine, the immediate management question is whether to own the machine or to get it on custom-hiring. Again if it is to be owned, what should be its size and whether it should be new or second hand? The key points to consider while deciding upon the size of a machine are: i) The difference in the initial cost ii) The annual use to be made of the machine. iii) The amount of additional labour saved by the machine. iv) The relative opportunity cost of capital and labour on the farm. v) Size and price of land vi) The number, quality and variety of farm equipment-buildings, livestock, fences, machinery, implements, etc. vii) Size of variable expenses – like number of labourers, etc. required to operate. viii) Personal factors such as size of family and standard of living ix) Climatic factors in relation to type of farming.

Break Even Analysis

- In sensitivity analysis we ask what will happen to the project if scales decline or costs increase or something else happens. As a financial manager, you will also be interested in knowing how much should be produced and sold at a minimum to ensure that the project does not lose money. Such an exercise is called break even analysis and the minimum quantity at which loss is avoided is called the breakeven point. The break-even point may be defined in accounting terms or financial terms.

Advantages of BEA

- 1. Helps in finding out profit at different levels of production capacity utilization
- 2. Helps to know break-even point below which production may be stopped temporarily till the situations are adverse.
- 3. Determination of levels of sales to earn pre-determined profit.
- 4. To decide the optimum product mix to optimize profit if the organization is involved in different products.
- 5. To decide the capacity expansion of plants.

Limitations of Break-even Analysis

- 1. The assumptions that fixed costs remain fixed and variable costs vary in proportion to the volume of production do not hold good because of varying environmental conditions. So, various cost calculations have application in limited time horizon.
- 2. Break-even analysis does not take into account the impact of learning curve on the cost behaviour.
- 3. The assumption that all additional quantity can be sold at a predetermined price is not valid in the trade liberalized world where the business is to be carried out in external competitive force environment.
- 4. Any organization producing multiple products faces problem in applying this technique because the fixed and variable costs of each product line cannot be find out (ascertained)with high degree of precision (accuracy) which is important for decision making.

FINANCIAL MANAGEMENT OF AGRIBUSINESS

- Farm financial management mainly deals with the capital acquisition and capital use in the agribusiness. Capital acquisition and capital use are important in every phase of agribusiness/farm management. Hence, financial management and farm management are synonymous and interchanging. Financial management is concerned with the efficient use of an important economic resources namely capital funds. Likewise it is concerned with estimation of financial needs, acquisition of funds from appropriate sources and allocation of funds among short term and long term assets for maximizing profits by achieving social responsibility and efficiency. Capital is produced means of production. Karl Marx in his book "Das Kapital" regarded capital as "crystallized form of labour". In the modern usage, money and capital are interchanged. But a clear distinction is sometimes made by the economists between money and capital. Money per se is not productive always. Capital is the money invested on physical items such as land, labour, fertilizers, etc.

Source of acquisition of capital

- i) Saving in the previous-years
- ii) Borrowings In India, Credit (Non-equity capital) is a sine-quo-non in running the business.
- In the utilization of non-equity capital risk is an associated factor.

Leverage-

- The ratio of debt to equity is called leverage. The leverage will be higher on the farms using more and more of non- equity capital. Financial Leverage: It is the ratio of amount of non- equity capital (D) to the amount of owner equity (E) in agribusiness.

Farm Financial Management Decision

- 1 Decision regarding requisite capital
- 2 Decision regarding sources of capital and its optimum utilization
- 3 Decision regarding allocation of capital/ funds among alternatives
- 4 Decision regarding strategies to be adopted to counter risk and uncertainty : i) Diversification ii) Flexibility iii) Insurance iv) Contractual arrangements v) Production management vi) Back-up management
- 5 Decisions on the legal problems relating to farm organization and operation

Characteristics of Farm Financial Decision These (Financial decisions) are divided into two categories:

- 1 Organizational Decisions- Relate to plans for developing the agribusiness by acquiring durable assets like machinery, implements, lands, etc.
- 2 Operational Decisions- Involve factors like how much of land should be put under what crop, how much finance is required for raising crops and livestock and needed finance to be borrowed at lowest cost

Steps in the Process of Farm Financial Management

- i) Objective : say to take perennial crop enterprise in the area
- ii) Problem recognition : No production no marketing problem but say only problem of large capital need
- iii) Analysis: Production and consumption based information gathering
- iv) Decision-making: Whether to opt for or not. Let him decide to go ahead
- v) Action: He is to implement the plan
- vi) Accepting the consequences: If succeeds he should feel happy if receives setback then should try to come out of this tangle.
- vii) Evaluation: continuous assessment of changes in agro, socio & economical environment around the farmer.

- The degree of success achieved in farm financing management depends upon the following decisions relating to acquisition and use of capital
- i) Whether to borrow or not to borrow?
- ii) How much to borrow?
- iii) When to borrow?
- iv) From whom to borrow and at what cost?
- v) When and how best to repay the loans?
- vi) What to use for security?
- vii)What degree of risk should be involved?
- Financial risks increase as borrowings increase Farm Financial Management is important to: 1 Farmer-borrower 2 Lending agencies 3 Farm credit advisory service

TOOLS OF FINANCIAL ANALYSIS

- The farm financial manager has to assess the performance of his business to act suitably. Following tools of financial analysis are available in judging the performance.
- 1 Farm planning &budgeting
- 2 The balance sheet/Net worth statement
- 3 Income statement or profit and loss statement
- 4 Cash flow statement / summary/budget or flow of funds statement
- 5 Break-even analysis Plan: Any scheme of action prepared in advance to attain the set objectives is a plan and planning refers to the process of formulating a plan i.e kind of crops to grow and the acreage under each, number and kinds of livestock to be kept, implements and machinery to be maintained and so on. Budgeting: The process of preparing a statement giving an estimate of all the farm receipts and expenses to be incurred for the agricultural year is called budgeting.

Balance Sheet or Net worth Statement

- The balance sheet indicates an account of total assets and total liabilities of the farm business revealing the financial status of the business. More specifically it is a statement of the financial position of a farm business at a particular time, showing its assets, liabilities and equity. If the assets are more than liabilities it is called net worth or equity and its converse is known as net deficit. The typical balance sheet shows assets on the left hand side and liabilities and equity on the right side. Both sides are always in balance hence the name balance sheet. Net worth is placed on right side, along with liabilities, in order to indicate that like any other creditor the farmer has a claim against the farm business equal to the equity amount. Balance sheet can also be prepared to study the performance of a business over years by preparing the same number of balance sheets. If the net worth increases over the different periods, it indicates efficient performance of the business. To prepare a balance sheet the prime requites are total assets and total liability of the farm.

- I. **Assets**: Assets are those items which are owned by the farmers and have values
- (i) Current Assets: The assets which are very liquid or short term nature and which can be converted into cash within a short time usually one year e.g. cash on hand, agricultural produce, livestock products, fruits & vegetable etc are called current assets.
- (ii) Working Assets: The assets which take 2 to 5 years to convert in the form of cash, e.g. machinery, equipment, livestock, tractors, etc are called working assets.
- (iii) Fixed Assets: The assets that are permanent or will be used continuously for several years are called long term or fixed assets. It takes longer time to convert into cash due to verification of records, legal transaction etc. e.g. land, farm buildings, etc.

- II **Liabilities**: These refer to all things which are owed (due) to others by the farmers.
- (i) Current Liabilities: The loans/debts that must be paid in the short run or in very near future e.g. crop loan, other loans, cost of maintenance of cattle, etc are called current liabilities.
- (ii) Intermediate Liabilities: The loans which are due for the repayment within a period of 2 to five years, e.g. livestock loans, machinery loans, unsecured loans are called intermediate liabilities.
- (iii) Long Term Liabilities: The loans which are due for the repayment after five or more years e.g. tractor loan, orchard loan, land development loan, unsecured loans, etc are called long term liabilities.

Precautions in Preparing the Balance Sheet of agribusiness farm/firm

- 1. Accuracy with regard to valuation of assets- Due to absence of proper records valuation of farm products like paddy, pulses, livestock & products should be valued based on prevailing market price. Land and other non-liquid assets be valued on prevailing sale value.
- 2. While valuing the durable assets, book value method (valuing at cost) be used. Book value be determined after giving an allowance for depreciation and improvements made on land. Book value refers to the realistic value of an asset giving due allowance for depreciation and improvement. So book value is neither the market price nor purchase price, but value at cost.

Income Statement or Profit and Loss Statement

- It is defined as a summary of receipts and gains minus expenses and losses during a specified period or over time. In income statement monetary values are assigned to input and output.
- Advantages:
- (i) It indicates the trend in various costs items
- (ii) It tells about whether there has been any over expenditure on the farm.
- (iii) To know the success or failure of a business farm over time.

Income statement basically constitutes three items viz; expenses, receipts and net income

- I. **Receipts** – These refers to the returns obtained from the sale of crop produce and other supplementary products like milk, eggs, wages, gifts, etc. Gains in the form of appreciation in the value of assets are also included in the receipts. However, returns from the sale of capital assets such as livestock, machinery, farm building, etc are not included because returns are not really obtained during the period.
- II. **Expenses-** These refer to recording of operating/variable/working and fixed costs. Losses in the form of depreciation on the asset value fall under the expenditure item. However, the amount incurred on the purchase of capital assets is not included.

- III. **Net Income** – It constitutes net cash income, net operating income and net farm income.
- (i) Net Cash Income - It gives the position of cash receipts minus operating expenses only during the period for which income statement is prepared. Net Cash Income (NCI) = Cash Receipts (CR) – Operating Expenses (OE)
- (ii) Net Operating Income – It is arrived at by deducting operating expenses from the gross income. Fixed costs are not given any consideration. Operating expenses include crop loans. Net Operating Income (NOI) = Gross Income (GI) – Operating Expenses (OE)
- (iii) Net Farm Income – Net farm income equals net operating income less fixed expenses/costs. Compared to net cash income and net operating income it is relatively a better measure of assessing the performance of a farm. Net Farm Income = Net Operating Income (NOI) –Fixed Expenses (FE) Net Farm Income= {Gross Income (GI)–Operating Expenses(OE)}-Fixed Expenses (FE)

Management Ratios

- These ratios also measure the productivity of farm business. These are as follows:
- 1. Management return MR = Net farm income – Wages for unpaid family labour – Interest on owned capital
- 2. Crop yields and Value: Comparison of average of unit under consideration with the average yields of the area.
- 3. Livestock Income Livestock efficiency = Expenditure on feeds ---------- Livestock income
- 4. Gross income per man Labour efficiency
- 5. Gross income per rupees investment. It is output-input ratio.

- Cash flow statement is a summary of cash inflows and cash outflows of an agri-business organization in a particular period, say a season or a year. It is usually prepared for the future, hence the name cash flow budget.

Merits

- 1. It helps to assess the time at which the funds are required for farming and allied enterprises.
- 2. It helps to identify the sources from which funds can be raised.
- 3. It helps to identify the purpose for which funds are needed.
- 4. It helps to identify the need of sale and purchase of capital assets.
- 5. It helps in working out the time and amount of repayment of loan, etc.

- Break-even analysis - The quantity at which all costs allocated to a product are equal to all revenues from its sale is known as break-even point. At quantities smaller than the break-even point, there is a loss and at larger quantities there is a profit.

- Margin of Safety (MOS): It indicates the difference between total output and output at BEP or total revenue obtained from the crop/enterprise and revenue at BEP. Total sales minus the sales at break-even point are known as the margin of safety. If the margin of safety is large (> 30%), it is a sign of soundness of the business since even with a substantial reduction in sales, profit shall be earned by the business.
- MOS (in units) = Total output – Output at BEP Or = TR – Revenue at BEP %age of Margin of Safety = Output at BEP ---------- X 100 Total output = Monetary value of output at BEP ---------- ---------- X 100 Total revenue MOS = TS - BES Total sales – Sales at BEP % of MOS = {BES/TS}*100

- 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. Marketing has evolved first as a barter stage, money stage of the economy, the stage of industrial revolution and the stage of competition

- Marketing Strategy - Marketing strategy is the complete and unbeatable plan designed specifically for achieving the marketing objectives.
- STP and Marketing Mix constitute the marketing strategy of the given product.
- (a) Segmentation
- (b) Targeting
- (c) Positioning

- (a) Segmentation - It is the process by which an attempt is made to understand the heterogeneous market by examining it from different angles and grasping the commonalities as well as difference contained therein, and then divide the whole market into segments, each homogeneous within itself, sharing certain common characteristics.
- (b) Targeting – This means picking up of the appropriate market segment say high income group.
- (c) Positioning – This means to decide to offer what? (Say the high quality synthetic fabrics as its product offering). This means to view the position of proposed product in the minds of customers and what image it proposes to build for its offer.

- Marketing Mix -It is the process of designing and integrating various elements of marketing in such a way as to ensure the achievement of enterprise objectives.
- According to Philip Kotler Marketing mix is the set of controllable variables that the firm can use to influence the buyers response.

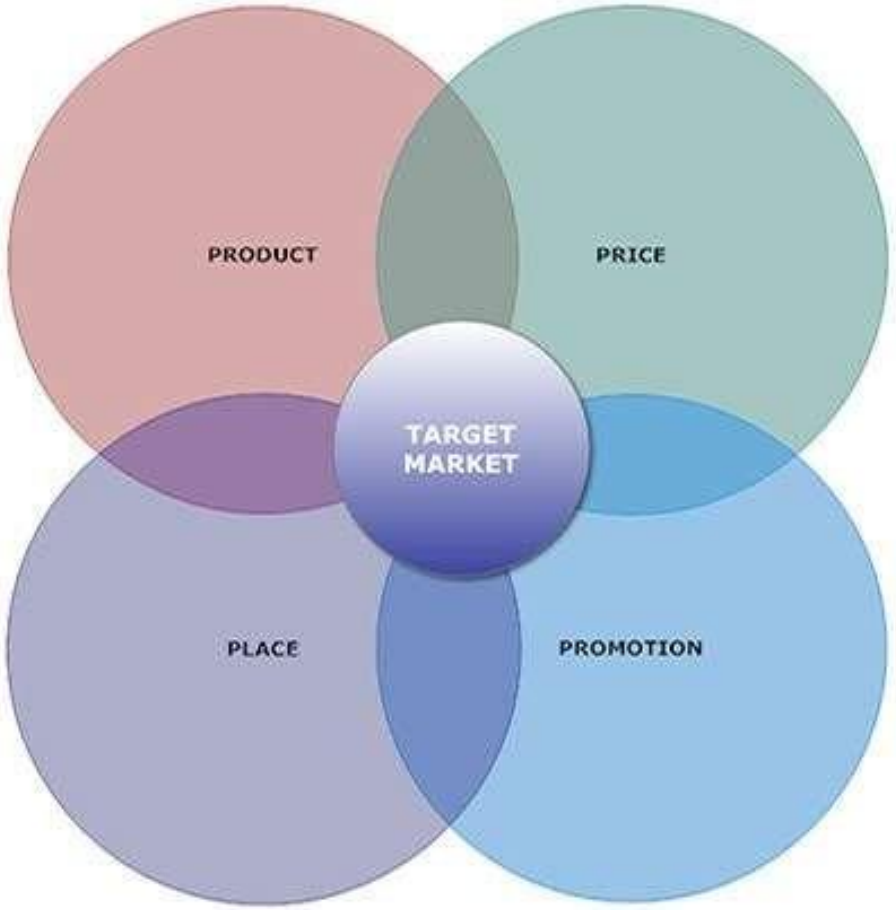
- Besides, the marketing mix variables, the manager of marketing mix has to function in another set of variables called environment variables which are:
- 1. Customer Variables: No. of customers, their location and purchasing power, habits of purchase, brand awareness and brand loyalty, life style and needs.
- 2. Competition variables: Nature and intensity of competition, number of competitors and their size, capacity and territory of operation, strength and weakness of competitors, costs, logistics or channels.
- 3. Trade variables: Types of intermediaries, their number and strength, services provided.
- 4. Environmental variables: Govt. regulation on products, prices, distribution, control on trade practices, economic condition of the country, culture and traditions, law and politics, attitude of the public and media.

- The marketing mix variables are considered as controllable variables of marketing where the choice of the manager is free. But the environmental variables are non controllable and are external to the firm. Thus marketing manager has no choice in them. The marketing process is the interaction of the marketing mix variables and the environmental variables.

Marketing Mix

- The marketing mix concept gained popularity following an article titled "**The Concept of the Marketing Mix**" by **Neil Borden** published **in 1964**.

Marketing Mix 4P's



Market Segmentation-

- Market segmentation is the process of dividing a market of potential customers into groups, or segments, based on different characteristics. The segments created are composed of consumers who will respond similarly to marketing strategies and who share traits such as similar interests, needs, or locations.

Segmentation base	Brief explanation of base (and example)	Typical segments
Demographic	Quantifiable population characteristics. (e.g. age, gender, income, education, socio-economic status, family size or situation).	e.g. Young, Upwardly-mobile, Prosperous, Professionals (YUPPY); Double Income No Kids (DINKS); Greying, Leisured And Moneyed (GLAMS); Empty- nester, Full-nester
Geographic	Physical location or region (e.g. country, state, region, city, suburb, postcode).	e.g. New Yorkers; Remote, outback Australians; Urbanites, Inner-city dwellers
Geo-demographic or geoclusters	Combination of geographic & demographic variables.	e.g. Rural farmers, Urban professionals, 'sea-changers', 'tree-changers'
Psychographics	Lifestyle, social or personality characteristics. (typically includes basic demographic descriptors)	e.g. Socially Aware; Traditionalists, Conservatives, Active 'club-going' young professionals
Behavioural	Purchasing, consumption or usage behaviour. (e.g. Needs-based, benefit-sought, usage occasion, purchase frequency, customer loyalty, buyer readiness).	e.g. Tech-savvy (aka tech-heads); Heavy users, Enthusiasts; Early adopters, Opinion Leaders, Luxury-seekers, Price-conscious, Quality-conscious, Time-poor
Contextual and situational	The same consumer changes in their attractiveness to marketers based on context and situation. This is particularly used in digital targeting via programmatic bidding approaches	e.g. Actively shopping, just entering into a life change event, being physically in a certain location or at a particular retailer which is known from GPS data via smartphones.


Setting Pricing Policy
1. Selecting the pricing objective
2. Determining demand
3. Estimating costs
4. Analyzing competitors' costs, prices, and offers
5. Selecting a pricing method
6. Selecting final price

PRICING POLICY

Marketing Mix Price

4 Types of Pricing Methods

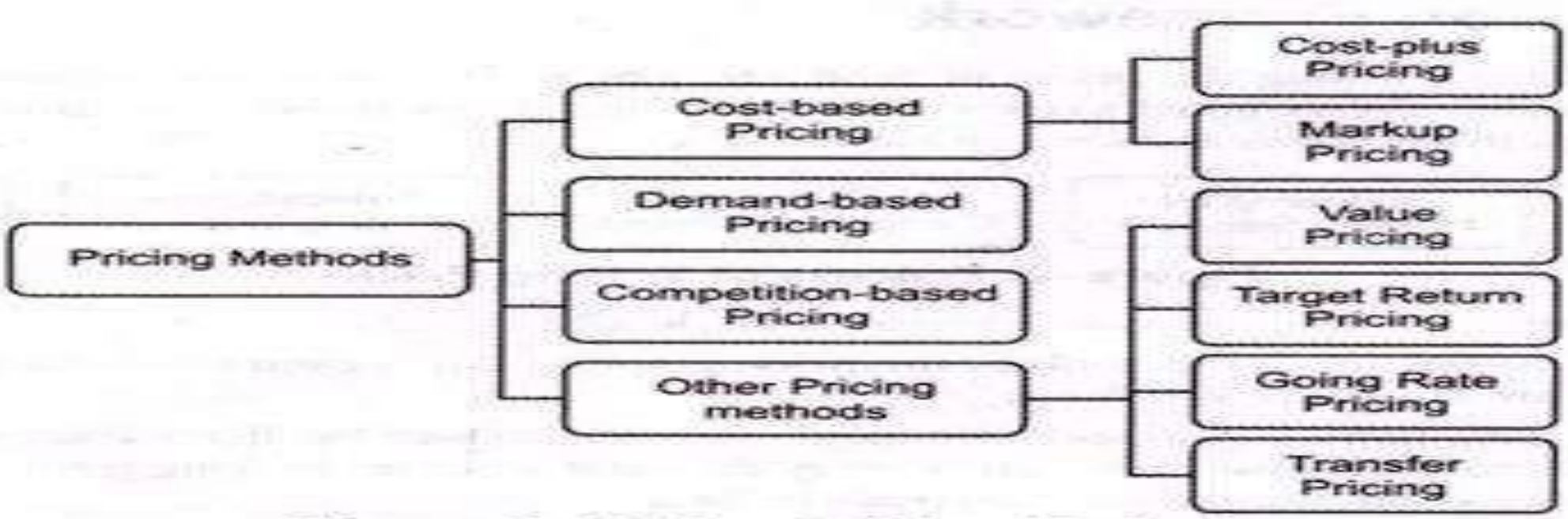


Figure-4: Various Pricing Methods

Cost-based Pricing:

- Cost-based pricing refers to a pricing method in which some percentage of desired profit margins is added to the cost of the product to obtain the final price. In other words, cost-based pricing can be defined as a pricing method in which a certain percentage of the total cost of production is added to the cost of the product to determine its selling price. Cost-based pricing can be of two types, namely, cost-plus pricing and markup pricing.

Demand-based Pricing:

- Demand-based pricing refers to a pricing method in which the price of a product is finalized according to its demand. If the demand of a product is more, an organization prefers to set high prices for products to gain profit; whereas, if the demand of a product is less, the low prices are charged to attract the customers.

Competition-based Pricing:

- Competition-based pricing refers to a method in which an organization considers the prices of competitors' products to set the prices of its own products. The organization may charge higher, lower, or equal prices as compared to the prices of its competitors.

Other Pricing Methods

- **Value Pricing:**

Implies a method in which an organization tries to win loyal customers by charging low prices for their high- quality products. The organization aims to become a low cost producer without sacrificing the quality. It can deliver high- quality products at low prices by improving its and development process. Value pricing is also called value-optimized pricing.

ii. Target Return Pricing:

- Helps in achieving the required rate of return on investment done for a product. In other words, the price of a product is fixed on the basis of expected profit.

- i**ii. Going Rate Pricing:**

Implies a method in which an organization sets the price of a product according to the prevailing price trends in the market. Thus, the pricing strategy adopted by the organization can be same or similar to other organizations. However, in this type of pricing, the prices set by the market leaders are followed by all the organizations in the industry.

- iv**. Transfer Pricing:**

Involves selling of goods and services within the departments of the organization. It is done to manage the profit and loss ratios of different departments within the organization. One department of an organization can sell its products to other departments at low prices. Sometimes, transfer pricing is used to show higher profits in the organization by showing fake sales of products within depart

Considerations Involved in Formulating the Pricing Policy:

- (i) Pricing policy is to be set in the light of competitive situation in the market.
- (ii) Goal of Profit and Sales:
- (iii) Long Range Welfare of the Firm:
- (iv) Flexibility:
- (v) Government Policy:
- (vi) Overall Goals of Business:
- (vii) Price Sensitivity:
- (viii) Routinisation of Pricing:

Life Cycle of Product and It’s Stages

- A product processes through a number of stages, such as from introduction to growth, maturity, and decline.
- This sequence of stages is called Product Life Cycle (PLC). The PLC influences the marketing strategy and marketing mix of an organization.

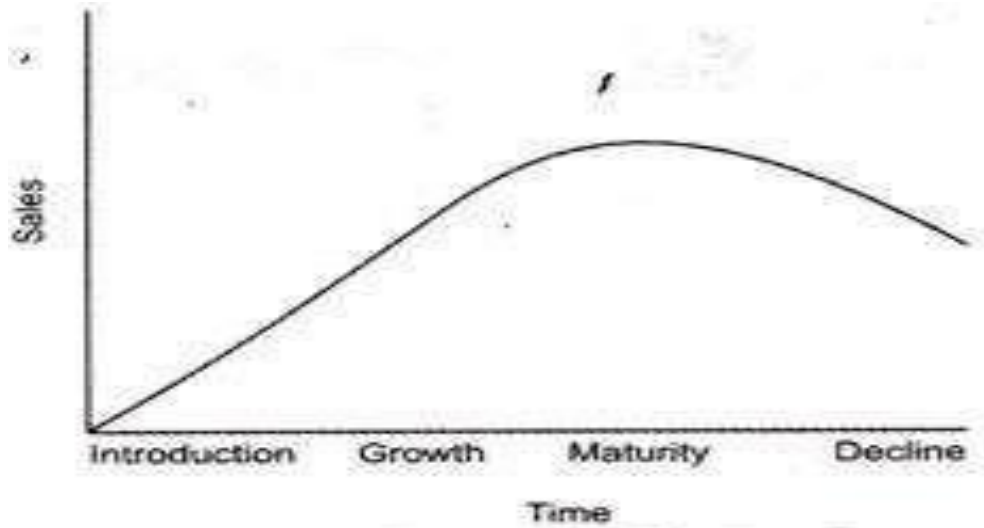


Figure-11: Life Cycle of a Product

- **Introduction:**
- Refers to the initial stage where an organization creates awareness among customers about the availability of a product and develops a market for the new product. The sales of the organization during this period are constant. In this stage, the pricing policy depends upon the availability of dose substitutes. Moreover, in this stage, the prices are either fixed higher to cover the production cost or low to attract customers.

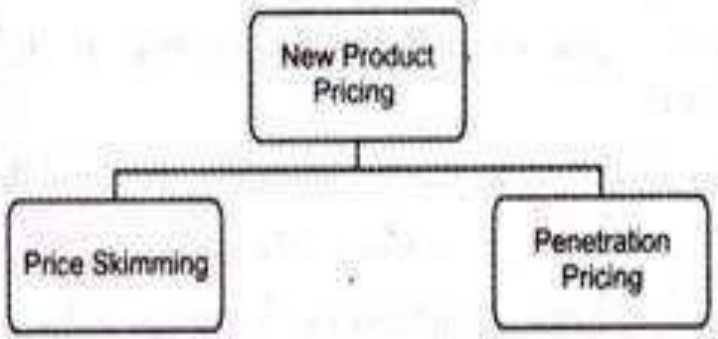


Figure-12: Pricing Strategies in the Introduction Stage

- The two types of pricing strategies in the introduction stage (as shown in Figure-12) are explained as follows:
- ii. Price Skimming:
- Refers to a pricing strategy in which a producer sets high prices initially when the product is newly introduced in the market. After that, there is a gradual reduction in the prices of a product.
- This strategy is used to capture maximum consumer surplus and spread profits over a period of time.
- **iii. Penetration Pricing:**
- Refers to charging minimum price for a product for gaining large market share. In this strategy, it is expected that customers switch to the product because of lower price.

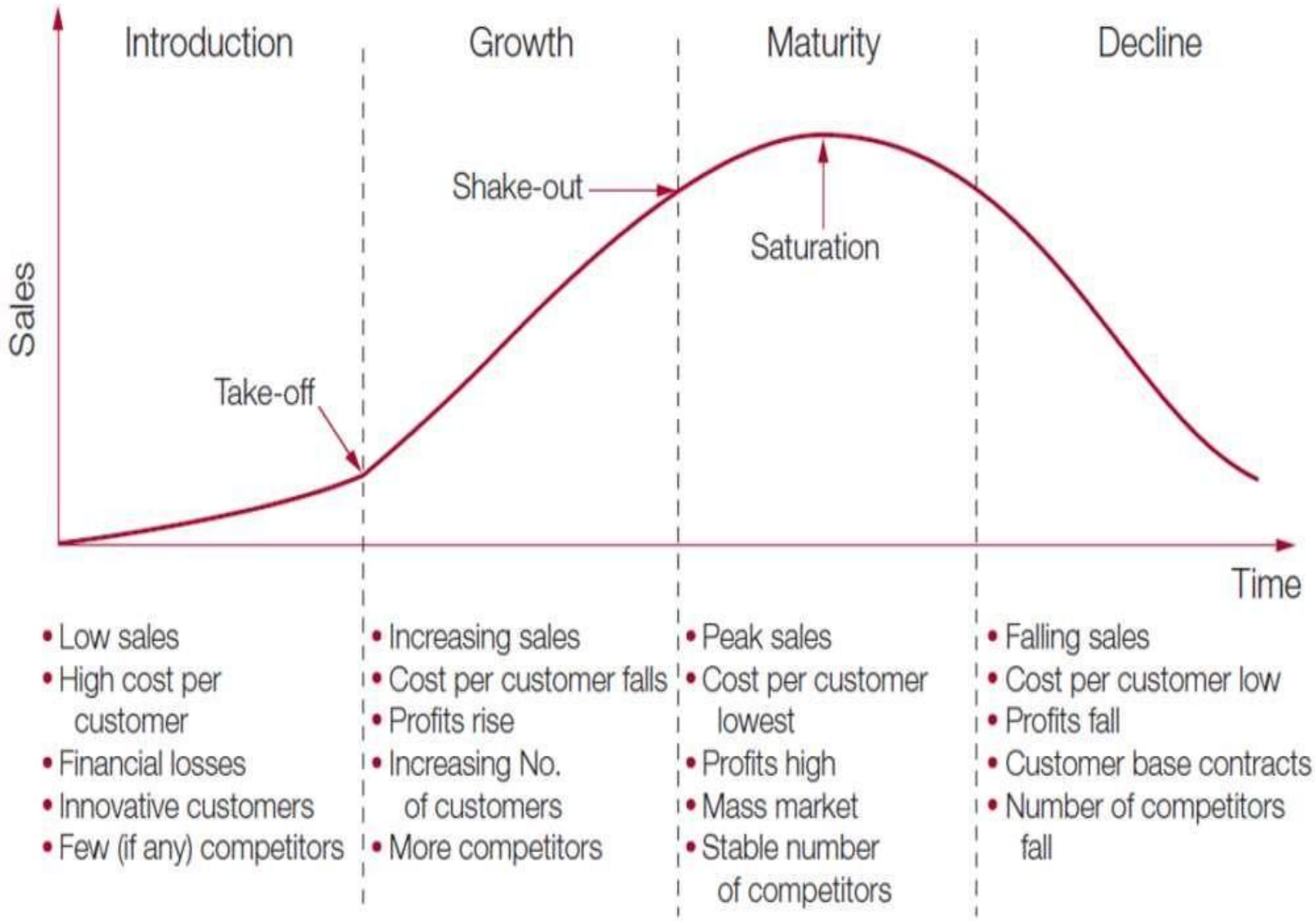
- The second stage is *growth*. In this stage, sales take off, the market knows of the product; other companies are attracted, profits begin to come in and market shares stabilize.

  The third stage is *maturity*, where sales grow at slowing rates and finally stabilize. In this stage, products get differentiated, price wars and sales promotion become common and a few weaker players exit.

  The fourth stage is *decline*. Here, sales drop, as consumers may have changed, the product is no longer relevant or useful. Price wars continue, several products are withdrawn and cost control becomes the way out for most products in this stage.

- **Significance of PLC:** PLC analysis, if done properly, can alert a company as to the health of the product in relation to the market it serves. PLC also forces a continuous scan of the market and allows the company to take corrective action faster. But the process is rarely easy.

The 4 Life Cycle Stages and their Marketing Implications



Agricultural Project

An agricultural project is defined as an investment activity in agricultural and allied activities where financial resources are utilized to create the capital assets with an anticipation of benefits over time. In other words it is an activity where money is spent to realize the expected returns and requires planning, financing and implementation as a unit. It also refers to specific activity, with specific starting point and specific end point to achieve a specific objective. The agricultural project may include projects such as irrigation, dairy, poultry, piggery, rural credit, social forestry, land reclamation/leveling, rural development projects, etc

Types of Agricultural projects

- 1. Water Resource Development Projects
- 2. Agricultural Credit Projects
- 3. Agricultural Development Projects
- 4. Agro-industries Commercial Development Projects

- 1. **Water Resource Development Projects**: These projects are aimed at bringing about overall agricultural development by bringing water to the project area, providing drainage and reclaiming soil salinity, for example: irrigation projects, ground water projects, project for land reclamation, drainage projects, salinity prevention and flood control.
- 2. Agricultural Credit Projects: These are also called “on lending projects”. The projects in which credit is provided to the farmers for farm investment in increasing agricultural production, raising their standard of living and the economy as a whole are called agricultural credit projects. These projects need to be defined in terms of farm investment and investment on agro-industries

- and ancillary industries, such as investment programmes on livestock, machinery, etc. All the financial institutions i.e. commercial banks, co-operatives and regional rural banks acts as the “credit houses” in the implementation of some agricultural projects.
- 3. Agricultural Development Projects: The projects aiming at improving upon the farm economy of individuals and regional development as a whole are known as agricultural development projects. Here, diversified cropping systems approach as well as farming systems approach is followed for bringing about the development of agriculture e.g. protected cultivation project.
- 4. Agro-industries Commercial Development Projects: Projects concerned with processing services to farming like supply of equipment/machinery, storage, market development, development of cooperative farms etc are cited under this category.

Characteristics of Agricultural Projects

- 1. Time Frame: It is an activity with a specific starting and ending points to accomplish (achieve) the stated objectives.
- 2. Time Sequence: It has a well defined time sequence of investment and production activities together with the benefits.
- 3. Operational area and clientele: The projects normally have a specific geographic location or area of concentration and specific clientele group in the region.
- 4. Administrative structure: A project will have a partially or wholly independent administrative structure and set of accounts funded through a specifically defined financial package.
- 5. Externality: Most agricultural projects are characterized by the existence of externalities defined as an uncompensated spill over or side effects which possess two properties: (i) Interdependency: One persons behavior creates a cost or benefit to the other persons, and (ii) Lack of compensation: The one who creates benefits is not completely rewarded for it, nor is the one who creates cost made to pay for it. An externality is revealed in terms of divergence between the private cost and the social costs of a project. 6. Risk and Uncertainty: The products of most of the agricultural projects are characterized as collective goods also called as the public goods, possess intangible benefits and are subject to greater risk and uncertainty

PROJECT CYCLE

- Definition of project cycle: A natural sequence in which the projects are planned and carried out is called as the project cycle.

Phases in Project Cycle

The important phases in project cycle are:

- 1. Conception or Identification
- 2. Formulation or Preparation
- 3. Appraisal or Analysis
- 4. Implementation
- 5. Monitoring
- 6. Evaluation

- 1. Identification: The technical specialists together with local leaders can identify the potential projects for an area. In fact, the technical specialists may identify areas where new investments may be profitable and can incorporate the suggestions of local leaders.
- 2. Preparation/formulation: The project can be prepared by a special team for the purpose with sufficient time and resources or by a consultant agency. The following points are considered while formulating the projects. The location and the site of project must be based on technical analysis and technical feasibility. The location of project depends upon physical resources, market conditions, marketing facilities, alternative investment prospects, administrative experience, farmers, objectives, technical skill, innovations, demand for products, etc. Due consideration is to be given to all the following aspects of formulation: (i) technical aspects, (ii) institutional/ managerial aspects, (iii) organizational aspects, (iv) social and commercial aspects, (v) financial aspects, and (vi) economic aspects

- 3. Appraisal or Analysis: A careful review or appraisal of proposed project is must so as to determine its soundness before implementation. In fact the ex-ante appraisal or feasibility study is to be done to get enough information before advanced planning is made. Appraisal provides an opportunity to re-examine the project proposal before huge investments are made. The appraisal team may even suggest for some additional information to be collected or project may be rejected, if serious flaw exists.
- 4. Implementation: The most important part of project cycle is implementation. Two aspects should be kept in mind before implementing any project. Firstly a better and more realistic project can be easily carried out and expected benefits are also realized. Secondly, project implementation must be flexible.

- 5. Monitoring: It is the timely collection and analysis of data on the progress of a project, with the objective of identifying constraints which impede successful implementation. This is highly desirable, particularly when projects fail, to be completed as per time schedule or in the process of attaining the set goals. It is imperative to get the feedback on the problems faced so that effective measures can be taken up to improve the deficiencies, which hamper the speedy implementation. Monitoring has to be done continuously to remove/offset various shortcomings that are faced from time to time with regard to various aspects of implementation.
- 6. Evaluation: An ex-post evaluation is essential for completed projects while at the same time concurrent to those of on-going. In fact, it provides systematic information pertaining to success or failure of a project. The concurrent evaluation is essential to know the weaknesses of on-going projects so that these may be corrected for greater success. However, the overall impact of a project can be assessed once it is over.

ASPECTS OF PROJECT FORMULATION/ PREPARATION

- 1. Technical Aspects
- 2. Institutional/ Managerial and Administrative Aspects
- 3. Organizational Aspects
- 4. Social and Commercial Aspects
- 5. Financial Aspects
- 6. Economic Aspects

- 1. Technical Aspects: The technical appraisal of proposed project should be done by the competent technical staff and it should not be done in hurry. For instance the technical appraisal of proposed minor irrigation project should contain aspects such as the rate of recharge of underground water, the number of wells to be sunk in the area including existing wells, spacing/location of new wells, depth up to which wells are to be sunk, deep/shallow wells required, suitability of underground water for irrigation purpose, the cropping pattern, season-wise discharge of water from the well, etc. The technical analysis may also determine the potential yield in the project area, the coefficient of production, etc along with the marketing and storage facilities required for the successful operation of the project and the processing system needed.
- 2. Institutional/ Managerial and Administrative: To avoid opposition, the local institutions may also be duly involved right from planning to implementation levels. All concerned agencies/institutions should have an opportunity to comment upon the proposed project and their views may be fully incorporated. Ample provisions for managers and supervisors for getting latest information about the progress of project, special monitoring staff and training arrangements needed may also be looked into. The managerial ability of existing staff may be assessed before making huge investments.

- 3. Organizational Aspects: Organizations refers to the process of putting the priorities in an orderly form. Prepare the organizational hierarchy of the implementing agency. The availability of staff at various cadres, demarcation of authority and linking of authority and responsibility, etc, are expected to be dealt with, under this aspect.
- 4. Social and Commercial Aspects: A proposed rural development project, besides employment and income generation also considers the provisions made for improved rural health services, better domestic water supplies, increased educational opportunities especially for rural women and children, etc. Moreover the project sites may be chosen in such a way that it should have notable scenic value and/or preserving the unique wildlife habitats. The backward and forward linkages of proposed project such as the supply and demand relationships pertaining to output, the credit requirements for marketing input and output, timely as well as quality supplies of modern inputs to adopt new technology/cropping patterns, an efficient marketing channel for supply of inputs and the procurements of equipment and supplies should also be examined. Besides, the supplies may be made not only in time but at fair price and with proper specifications.
- 5. Financial Aspects: The financial aspects deal primarily with sources of raising financial assistance and terms and conditions of obtaining finance from the credit agencies. The implementing agency should be in a position to estimate financial requirements and anticipated returns through farm planning and budgeting. Once the incremental income is arrived at, the repayment capacity duly giving considerations/margins for risk and uncertainty can be worked out.

- 6. Economic Aspects: The economic analysis is directed towards determining whether the project is likely to contribute significantly to the development of economy as a whole. The point of merit is to whom the project is going to benefit i.e. to one section of society or the entire area of the project. The indirect effect like, the income distribution, needs to be assessed. Under income distribution, the purpose is to know whether income inequalities are going to be narrowed down or widening up as a result of proposed projects. Overall it is expected from the project to bring largest contribution to the national economy.

PROJECT EVALUATION TECHNIQUES

- Predicting Future Prices Determining future prices is a matter of judgment. To project future prices one should work out the trend in past market prices and the same trend can also be assumed for the near future. Moreover, due consideration may also be given to the inflationary trend, in case it exists.
- (1) Compounding/ Future value of present money The process by which the present cost/investments are made to grow with time to make it comparable with future returns is called compounding. The future value of present investment in the project is calculated by using the well known formula of compound interest. A= P [1 +r] t
- (2) Discounting/ Present value of future money The process of computing the future revenues/returns to make it comparable with the present is called discounting. Discounting is the inverse procedure of compounding
- R PV = ---------- [1 +r] t where, A is the future value of the present sum invested in the project P is the principal amount invested in the project r is the interest rate in percentage t is the number of years or project life in years PV is the present value/worth of future money R is money value (Returns) in future The rationale behind this process is that a sum to be received in future is some what less now, because of time distance assuming of positive interest rate. A present sum is compounded to know the future value and future sum is discounted to know the present value of future return.

Project Evaluation Techniques

- A project under consideration can either accepted or rejected once project cost and benefits are identified, priced and valued. Following discounted/ undiscounted measures are applied to evaluate the agricultural project.
- I Undiscounted Measures: These are the methods in which the data are used as these are some with some simple manipulations, without making explicit allowances for taking into consideration the time element involved rigorously. i Ranking by inspection . ii Proceeds per unit of outlay. iii Payback period (PBP)
- II Discounted Measures: These are the methods which rigorously take into account the time element associated with the cost and return streams. i Net present worth (NPW) ii Benefit cost ratio (BCR) iii Internal rate of return (IRR) iv Profitability Index
- There is no single best technique for estimating the project worth, some are better than other and some are especially deficient. In fact these financial and economic measures of project investment are only the tools of decision- making. Undiscounted measures like PBP, ranking by inspection, proceeds per unit of outlay, average annual proceeds per unit of outlay and average income on book value of the investment may also be used in assessing the project worth.

1 Undiscounted Measures

- (i) Ranking by inspection It is based on the size of costs and length of the cash-flow stream. Suppose if the two projects are with the same investment and the same net value of production, but with difference in the length of the period, then the project with longer duration is preferred to the one with shorter time period. This leads to bias in the choice obviously due to the absence of more elaborate and appropriate analysis.
- (ii) Proceeds per rupee of outlay This is worked out by dividing the total returns with the total amount of investment, and a given project is ranked based on the highest magnitude of the parameter.
- (iii) Payback Period It is the length of time period from the beginning of the project that equates the net value of incremental production streams to the initial capital investment i.e, The present value of total cash inflows from an investment equals (recovers) the total cash out flows. According to the criterion, the project that has the shortest payback period is preferred.

- **II Discounted Measures**
- (i) Net present worth (NPW) Sometimes it is referred to as Net Present Value (NPV) and is simply the present worth of cash flow stream. It represents the present worth of incremental net benefit i.e. the income stream generated by an investment. The net present worth (NPW) can be calculated in the following steps as per formula given: NPW = Discounted benefits – Discounted costs

Steps in the computation of NPW

- i Choose an appropriate rate of discount (r). Generally prevailing commercial interest rate is taken as a discount factor.
- ii Compute the net benefits (NBt) by subtracting the yearly total cost (Ct) from gross benefits (Bt) as follow: NBt = Bt - Ct
- iii Work out the net present worth (NPW) of net benefits by deflating the net benefits. Find out the sum of yearly values.
- iv Accept the project whose NPW is higher.
- Decision making rule
- (a) If NPW > 0; accept investment,
- (b) If NPW < 0; reject investment,
- (c) If NPW = 0; be indifferent
- i For single project, the NPW should be positive
- ii For multiple projects rank the project in descending order according to the values of NPW and implement accordingly depending upon availability of funds.

- (ii) **Benefit Cost Ratio (BCR)-** The ratio derived by dividing the present value of benefits, by the present value of cost is known as benefit cost ratio (BCR). In fact, this ratio measures the return or benefit per units of cost or investment. While ranking the projects depending upon the B-C ratio, the most common procedure of selecting project is to choose the projects having B- C ratio of more than one. Finally, the given project is opted for implementation, among alternatives based on the highest B – C ratio. BCR is calculated as:

- Decision criterion:
- (a) If BCR > 1; accept investment,
- (b) If BCR < 1; reject investment,
- (c) If BCR = 1; be indifferent

- (iii) Internal Rate of Return (IRR)- It shows the marginal efficiency of capital or return generating capacity of investment.
- It (IRR) is the rate (R) at which the Net Present Worth (NPW) is equal to zero. In other words at this rate the present value of returns on investment and the present value of cost incurred are equal with the result that the net present worth become zero. Such a rate of interest (R) can be calculated by trial and error method by using discount rates.

- **Decision**:
- (a) If IRR > Required Rate of Return (RRR); then accept the investment
- (b) If IRR < Required Rate of Return (RRR); then reject the investment,
- (c) If IRR = Required Rate of Return (RRR); then be indifferent If for all investments IRRs > RRRs; select the highest one ranking their preferences

- **iv Profitability Index (PI):** It is defined as the ratio of net present worth/value of the cash flows to the initial capital investment/expenditure (Co).
- Here an attempt is made to relate the NPW of the cash flows of the project to the total capital requirement (Cr) for a project through "Profitability Index".
- Assuming that all the capital expenditure/investment is incurred in year zero, the profitability index (PI) is worked as follow.

- **Appropriate Selection of Choice Indicator**
- As regards discounted measures, the problems lies with the choice of an appropriate discount rate. Ranking of acceptable alternative projects is not possible with NPW because it is an absolute measure, but not relative.
- A small but highly attractive project may have a small NPW than a large but less acceptable project. Similarly B-C ratio is mostly used to evaluate social project but not private projects (Gittinger).
- In general IRR method is preferred for the following obvious seasons. Merits of IRR 1 It is an unambiguous (having only one meaning) estimate
- 2 It is consistent with intuition
- 3 Its estimate is unique and it accounts for all cash flows associated with projects and time value of money
- 4 It has got wider applicability

Limitation of IRR

- 1 A precise IRR is obtained with narrow difference in the two discount rates assumed.
- 2 Complications are involved in the computation of IRR.

Sensitivity Analysis

- The economic evaluation of agricultural projects assumes that both cash inflow and cash out flows are known with certainty. However, in real world these assumptions may not hold true and project profitability may be, thus questioned. Therefore, the economic analysis of agricultural projects is to be done under changing circumstances which is termed as sensitivity analysis. The economic analysis of agricultural projects carried out under the changing circumstances (i.e. for costs, returns, yields, etc.) is called sensitivity analysis. Since the project appraisal techniques stated earlier like NPW, BCR, IRR, etc give estimates under the assumption that the data used remain unchanged over a length of time. But in reality this is not a valid assumption because our estimates of cost and returns go awry (distorted) over time due to changes in prices of agricultural inputs / output. Under these conditions our estimates of economic analysis will be misleading. The sensitivity analysis of the project appraisal includes the following points:
- 1 Consideration of the length of the period over the existing one.
- 2 Changes (increasing or decreasing) in the prices of goods and services by certain proportions of the project say by 10%, 20%, 30 %, 40%, 50% etc. 85
- 3 Changes (increasing or decreasing) in the levels of costs say by 10%, 20%, 30%, 40 % etc.
- 4 Changes (increasing or decreasing) in the yield level of crops and livestock, and
- 5 Delay in the implementation i.e. varying gestation period.

Techniques of Sensitivity Analysis

- 1 Straight forward method
- 2 Switching value
- 3 Probability approach
- 4 Certainty equivalent approach
- Switching value- A variation in sensitivity analysis is called the switching value.

SWOT analysis and PEST analysis

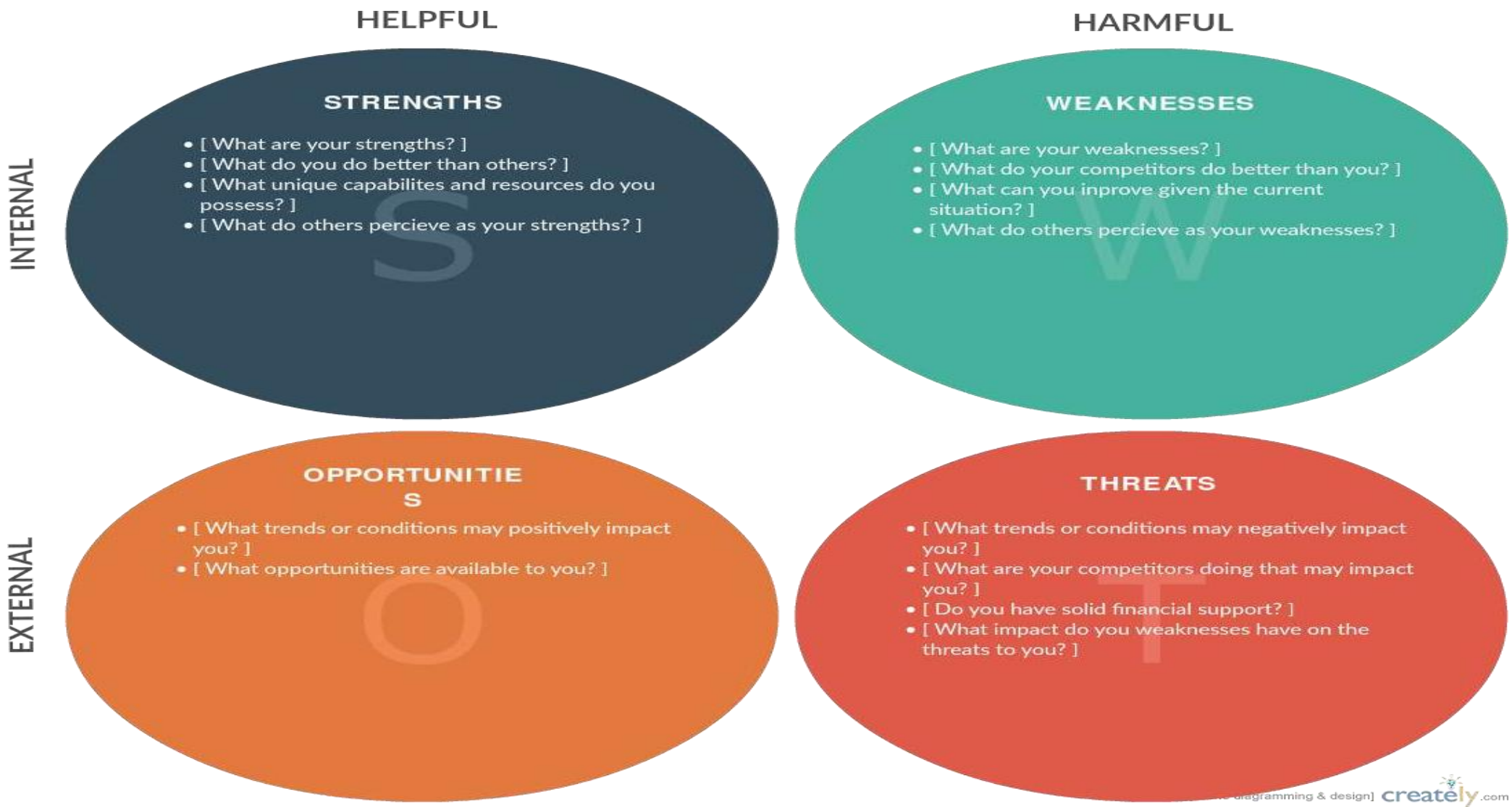
- The SWOT analysis is an extremely useful tool for understanding and reviewing the company's position prior to making decisions about future company direction or the implementation of a new business idea. A SWOT analysis can be completed by an individual within the organization (provided they can take an overview of the current situation) but is often best completed in a team or group. The discussion itself is informative, and the quality of the output is better if perceptions are gathered from a number of people

- The PEST analysis is a tool to evaluate external factors. It is often helpful to complete a PEST analysis prior to a SWOT analysis, although it may be more useful to complete a PEST analysis as part of, or after, a SWOT analysis. A SWOT analysis measures a business unit; a PEST analysis measures trends and changes in the market.

- A SWOT analysis is a subjective assessment of information about the business that is organized using the SWOT format into a logical order that helps understanding, presentation, discussion and decisionmaking. The four dimensions are a useful extension of a basic two heading list of pro's and con's. The SWOT analysis template is normally presented as a grid, comprising four sections, one for each of the SWOT headings: Strengths, Weaknesses, Opportunities, and Threats. The SWOT template below includes sample questions, whose answers are inserted into the relevant section of the SWOT grid. The questions are examples, or discussion points, and obviously can be altered depending on the subject of the SWOT analysis. Note that many of the SWOT questions are also talking points for other headings - use them as you find most helpful, and make up your own to suit the issue being analyzed.

What is SWOT Analysis?

- SWOT, when broken down simply means analyzing the:
- Strengths – The advantages you have over the competition concerning this project.
- Weaknesses – The disadvantages you have internally compared with your competitors.
- Opportunities – Current external trends which are waiting to be taken advantage of.
- Threats – External movements which may cause a problem and have a negative impact on your business.


HELPFUL
HARMFUL
INTERNAL
EXTERNAL
STRENGTHS
• [What are your strengths?]
• [What do you do better than others?]
• [What unique capabilites and resources do you possess?]
• [What do others percieve as your strengths?]
WEAKNESSES
• [What are your weaknesses?]
• [What do your competitors do better than you?]
• [What can you inprove given the current situation?]
• [What do others percieve as your weaknesses?]
OPPORTUNITIES
• [What trends or conditions may positively impact you?]
• [What opportunities are available to you?]
THREATS
• [What trends or conditions may negatively impact you?]
• [What are your competitors doing that may impact you?]
• [Do you have solid financial support?]
• [What impact do you weaknesses have on the threats to you?]
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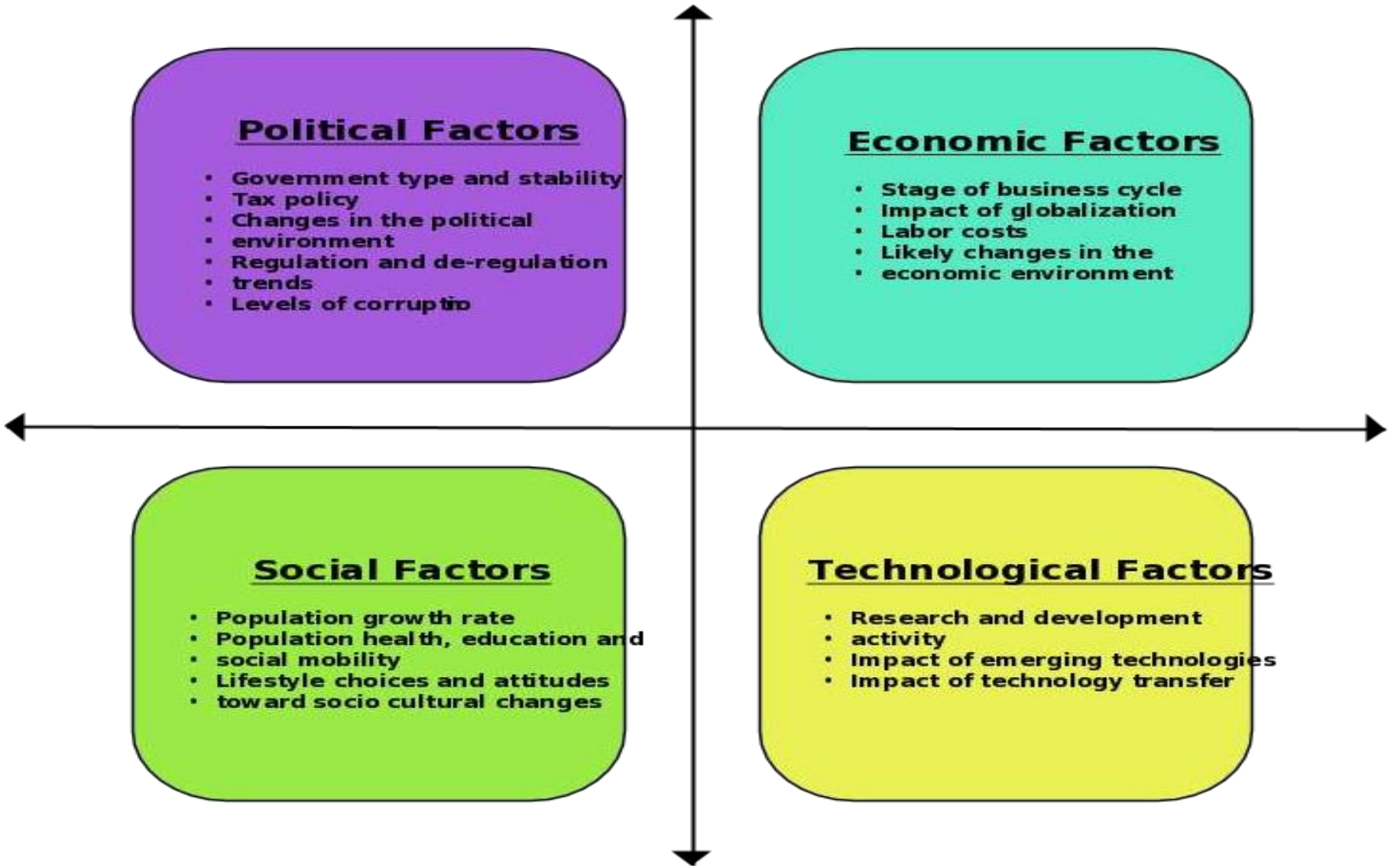
What is PEST Analysis?

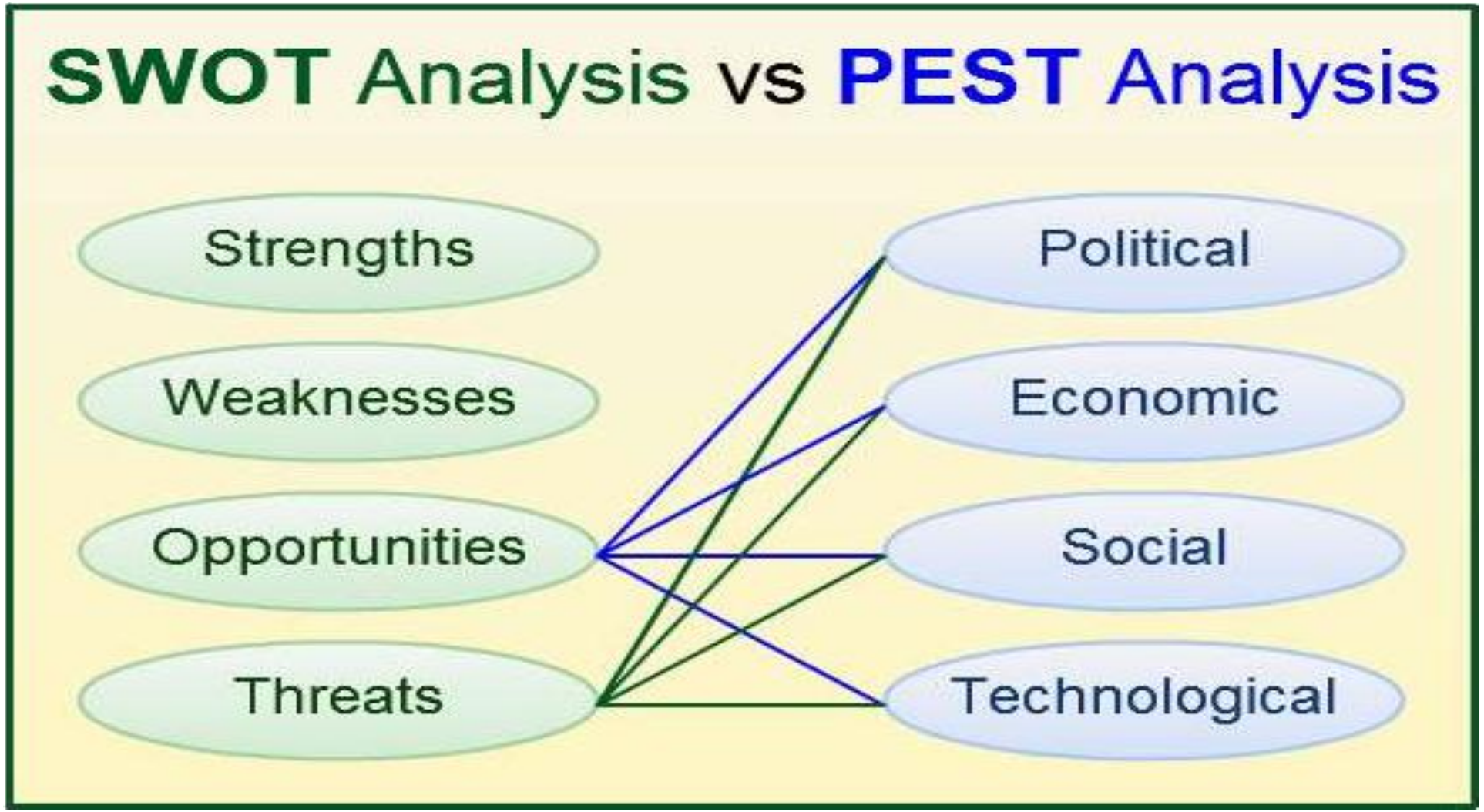
- PEST stands for the analysis of the external factors which are beneficial when conducting research before beginning a new project or to help conduct market research. These factors are:
- Political – Laws, global issues, legislation and regulations which may have an effect on your business either immediately or in the future.
- Economic – Taxes, interest rates, inflation, the stock markets and consumer confidence all need to be taken into account.
- Social – The changes in lifestyle and buying trends, media, major events, ethics, advertising and publicity factors.
- Technological – Innovations, access to technology, licensing and patents, manufacturing, research funding, global communications.

- Pest can also be known as **PESTLE** which includes other factors such as:
- Legal – Legislation which has been proposed and may come into effect and any passed legislations.
- Environmental – Environmental issues either locally or globally and their social and political factors.


Political Factors
• Government type and stability
• Tax policy
• Changes in the political
• environment
• Regulation and de-regulation
• trends
• Levels of corruptio
Economic Factors
• Stage of business cycle
• Impact of globalization
• Labor costs
• Likely changes in the
• economic environment
Social Factors
• Population growth rate
• Population health, education and
• social mobility
• Lifestyle choices and attitudes
• toward socio cultural changes
Technological Factors
• Research and development
• activity
• Impact of emerging technologies
• Impact of technology transfer

Comparing SWOT Analysis Vs PEST Analysis

- Directly comparing SWOT vs PEST is probably the wrong thing to do. They are both planning methods that give tremendous insights for you to successfully execute projects.
- The disadvantage of PESTLE analysis is it doesn't consider the internal factors of your organization. It deeply analyzed the external factors that might affect your project or organization. So if you plan your projects based only on the PEST analysis you will not have a chance to match your strengths to a current need.
- SWOT analysis considers both the internal and external factors. It captures the external factors in the opportunities and threats section. However, when creating a SWOT diagram a deep analysis of external factors are not performed. At least not as extensively as a PEST analysis. So you might miss out on external factors that can benefit your project.
- So a better approach would be to **perform an extensive PEST analysis and use that finding in the opportunities and threats section in the SWOT analysis**.


SWOT Analysis vs PEST Analysis
Strengths
Weaknesses
Opportunities
Threats
Political
Economic
Social
Technological

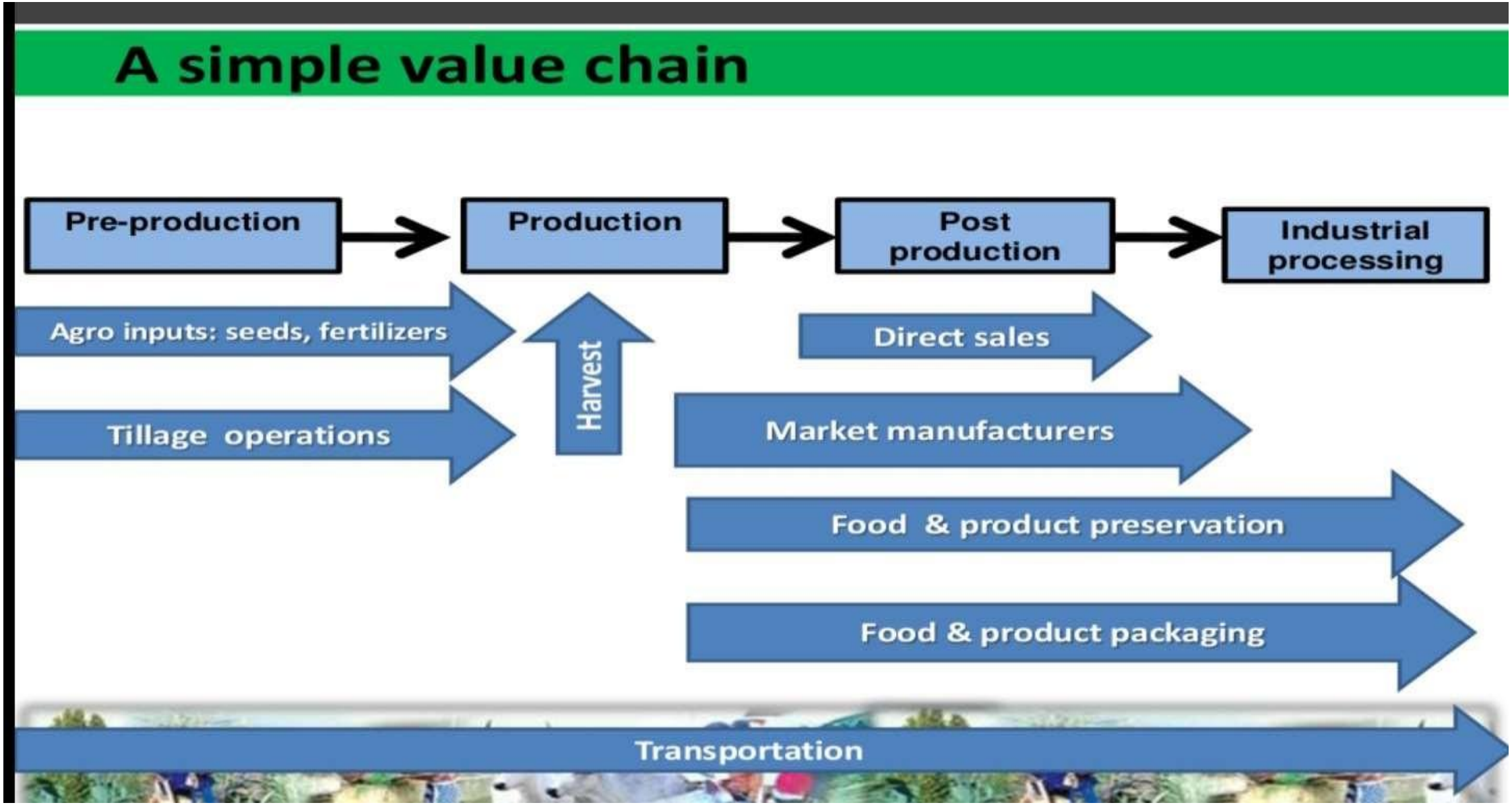
What value chain is all about?

A 'value chain' in agriculture describes the range of **activities** and set of **actors** that bring agricultural product from production in the field to final consumption, wherein at each stage value is added to the product.

What value chain is all about?

The production stages entail a combination of **physical transformation** and the participation of various producers and services up to product's disposal after use.

A simple value chain



What is value chain Analysis?

It is an approach that analyzes a production unit or process in a market chain—from input suppliers to final buyers—and the relationships among them.

THANKS