



University of Zimbabwe
P. O. Box MP 167
Mt. Pleasant, Harare



Food, Agriculture and Natural
Resources (FANR) Directorate
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Gaborone



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MODULE MAV 408 DAIRY AGRIBUSINESS MANAGEMENT

Compiled by: -

Dr. L. Rugube
Department of Animal Science
University of Zimbabwe
P. O. Box MP 167
Mt. Pleasant, Harare.

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University of Zimbabwe,
P. O. Box MP 167,
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Tel: +
Fax: +
Email:
Website:

Address: The Dean,
Faculty of Agriculture/Veterinary Medicine,
University of Zimbabwe,
P. O. Box MP 167,
Mt. Pleasant, **HARARE**,
Zimbabwe.

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**SADC-UNIVERSITY OF ZIMBABWE
REGIONAL POSTGRADUATE
PROGRAMME IN DAIRY SCIENCE
AND TECHNOLOGY**

MODULE MAV 408

Dairy Agribusiness Management

January 2010

Faculties of Agriculture & Veterinary Medicine,
University of Zimbabwe,
P. O. Box MP 167,
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HARARE,
Zimbabwe.

MEMBER STATES OF THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY



TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION TO AGRIBUSINESS MANAGEMENT.....	1
1.1 Introduction	1
1.2 Defining Agribusiness Management	1
1.3 The Agribusiness System	1
CHAPTER TWO: THE AGRIBUSINESS MANAGER.....	3
2.1 Introduction	3
2.2 The Practice of Management.....	3
2.3 The Role of Management	3
2.4 What Management Is.....	3
2.5 Managerial skills required for agribusiness management:	4
2.6 Business Decision Making	4
2.7 The Four Functions of Management	5
2.7.1 Planning.....	6
2.7.2 Organizing.....	6
2.7.3 Controlling.....	7
2.7.4 Directing.....	7
CHAPTER THREE: UNDERSTANDING THE ROLE OF MARKETING AND CONSUMER DEMAND.....	8
3.1 Introduction	8
3.2 The Marketing Mission	8
3.3 Role of Marketing	8
3.4 Definition of key marketing terms	9
3.5 Marketing and the Five Barriers to Consumer Satisfaction	9
3.6 The nine functions of marketing	9
3.7 The four utilities of marketing.....	11
3.8 Essentials of agribusiness marketing.....	11
3.9 The marketing plan.....	12
3.10 The marketing mix	12

CHAPTER FOUR: THE BASICS OF CONSUMER DEMAND.....	13
4.1 Introduction	13
4.2 Principles of consumer demand.	13
4.3 Factors affecting demand	13
4.4 Demand shifters.....	14
4.5 The concept of elasticity of demand.....	15
4.6 Determinants of price elasticity.....	16
4.7 Mathematical definition of elasticity.....	16
4.8 Price elasticity and total revenue.....	16
4.9 Cross elasticity of demand	17
4.10 Income elasticity of demand.....	18
CHAPTER FIVE: BUDGETING AND BUDGET ANALYSIS	19
5.1 Introduction to budgeting	19
5.2 The purpose of a budget	19
5.3 Types of Budgets.....	20
5.3.1 <i>The Operating Budget</i>	20
5.3.2 <i>The Cash Flow budget</i>	20
5.3.3 <i>The Capital Expenditure Budget</i>	21
5.4 Relating the operating Cash Flow, and Capital Expenditure Budgets	21
5.5 Budget benefits.....	22
5.6 Budget limitations	22
CHAPTER SIX: THE ORGANIZING FUNCTION.....	23
6.1 Introduction	23
6.2 Choosing a Legal Structure:	23
6.2.1 <i>The Sole Proprietorship</i>	23
6.2.2 <i>Partnership</i>	24
6.2.3 <i>The cooperation</i>	25
6.3 Organizing for success	26
6.3.1 <i>Elements of successful business organization</i>	26
6.3.2 <i>Approaches to organizational structure</i>	26
6.3.3 <i>Types of organizational structures</i>	26
6.4 Cooperative Agribusiness.....	27

6.4.1 Introduction	27
6.4.2 What is a cooperative?	27
6.4.3 Objectives of farmer cooperatives	27
6.4.4 Principles of cooperatives	28
6.4.5 Kinds of cooperative business.....	28
6.5 Management challenges facing agricultural cooperatives.....	29
CHAPTER SEVEN: THE CONTROLLING FUNCTION	30
7.1 Introduction	30
7.2 Organizing production using economic principles.....	30
7.2.1 The production process.....	30
7.2.2 The production function.....	30
7.2.3 Average physical product (APP)	31
7.2.4 Marginal physical product (MPP).....	32
CHAPTER EIGHT: COST CONTROLS AND BREAK-EVEN ANALYSIS.....	33
8.1 Introduction	33
8.2 General cost concepts.....	33
8.3 Break-Even Budgeting and Analysis.....	33
8.4 Additional Application of Break-Even Analysis.....	35
8.4.1 Meeting a Profit Objective.....	35
8.4.2 Evaluating changes in fixed costs.....	36
8.4.3 Determining a selling price	36
CHAPTER NINE: FINANCIAL STATEMENTS FOR BUSINESS CONTROL.....	38
9.1 Introduction	38
9.2 Basic concepts	38
9.3 The balance sheet	38
9.4 The profit and loss statement.....	40
9.5 The balance sheet analysis	42
9.5.1 Liquidity ratios.....	42
9.5.2 Solvency ratios.....	43
9.5.3 Activity ratios.....	44
9.5.4 Profitability ratios	45
CHAPTER TEN: THE DIRECTING FUNCTION.....	46
10.1 Introduction	46
10.2 The value of the human element	46

10.3 The value and role of work.....	47
10.4 Developing a proper motivational environment.....	48
10.5 Elements of the motivational environment.....	49
10.6 Management styles	49
10.7 Dealing with Personnel	50
CHAPTER ELEVEN: THE BUSINESS PLAN.....	52
11.1 Elements of a business plan.....	53
11.2 Uses of a Business Plan.....	54
11.3 Writing the Plan: The Format.....	54
11.4 Strategic Planning.....	55

CHAPTER ONE: INTRODUCTION TO AGRIBUSINESS MANAGEMENT

1.1 Introduction

Agriculture is the mainstay of most African countries, employing about 70 percent of the population in the agribusiness system. Today agriculture is a whole lot more than most of us realize. It extends from those that sell feed and seed to farmers, to food processors and manufacturers and ultimately to restaurants and supermarkets that bring food to the final consumer. The broad dimensions of today's modern agriculture are examined in this first section of the module. This section also introduces the reader to the many challenges facing today's agribusiness managers. One of the prerequisites to being a successful manager is a firm understanding of the environment in which the manager operates. Chapter One defines and gives an overview of the agribusiness system, the role of management and managerial skills required for agribusiness management.

1.2 Defining Agribusiness Management

Agribusiness Management is the application of management principles to businesses that supply agricultural inputs to the farm sector, produce agricultural products, assemble farm output, transport, finance, handle, store, process, manufacture and market agricultural goods and services.

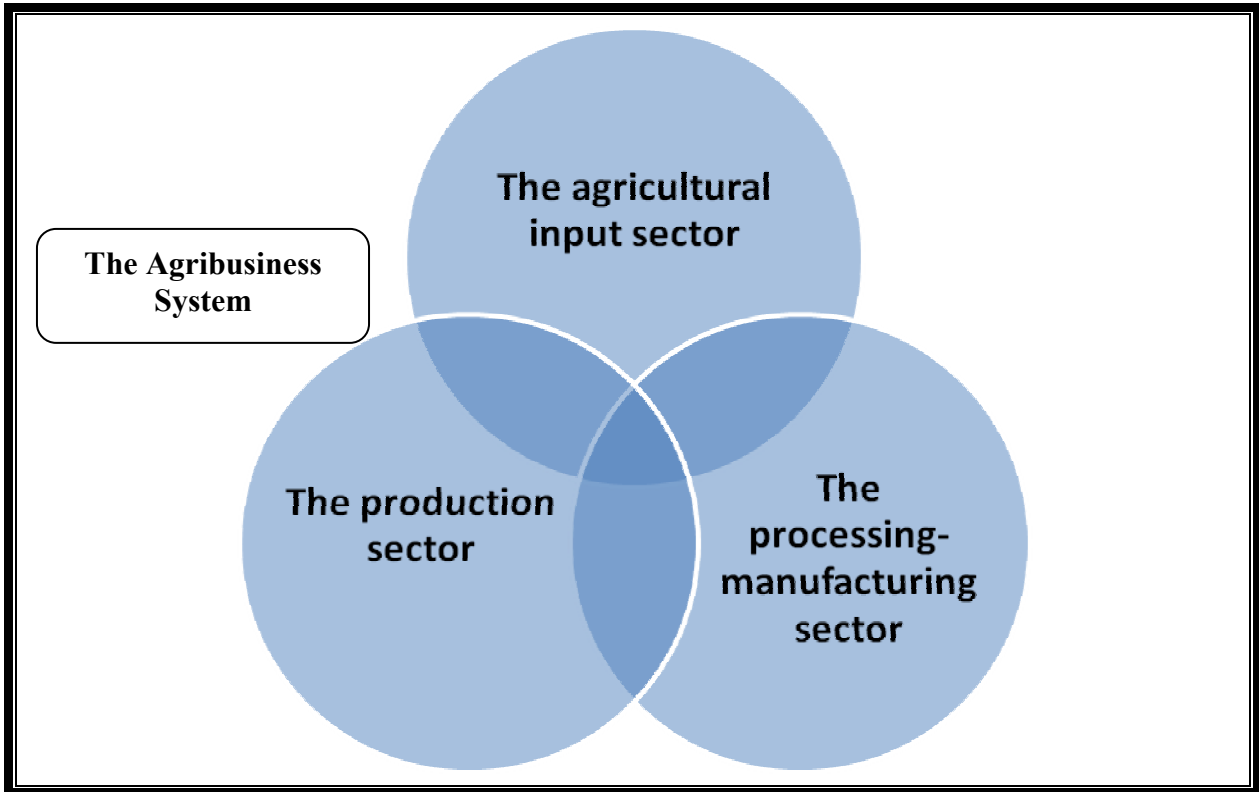
Management, is the process of planning, organising, leading, and controlling organisational resources (human, financial, physical and informational resources), to achieve organizational goals in an effective and efficient manner.

1.3 The Agribusiness System

Agribusiness includes not only those that farm the land, which is the production sector, but also the people and firms that provide the inputs (eg., seed, chemicals, and credit)., process the output (eg., ice cream , bread and breakfast cereals)., and transport and sell the food products (eg., restaurants and supermarkets)., to customers. The agribusiness system is therefore a three-part system involving the following components:

1. **Input Sector**; seed, fertiliser, farm machinery, financing (etc).
 2. **Production Sector**; Crops, Livestock, Timber, (etc).
 3. **Processing and Manufacturing Sector**; Storage, grading, distribution (etc).
- ❖ The agribusiness system effectively combines the three components. All components are interrelated and integrated in such a way that the success of each sector depends on the proper functioning of the other two. The term agribusiness is thus synonymous with the harmonization and synchronization of the various interrelated components of the system (see figure 1 below)

Figure 1 components of agribusiness system



CHAPTER TWO: THE AGRIBUSINESS MANAGER

2.1 Introduction

This Chapter provides a basic understanding to the subject of business management. It begins with a discussion on the business decision making and underlines a six step decision making procedure for decision making that will improve the quality and reduce the time required for making good decisions. The final section analyzes business management by examining the four functions of management.

2.2 The Practice of Management

The objective of all managers, regardless of their position, is to efficiently combine the available human, financial and physical assets to maximize the long-run profits of the firm by profitably satisfying customer needs.

The accomplishment of this objective requires many skills.

1. Technically knowledgeable about the organization's product or service.
2. Good communicators.
3. able to motivate people effectively
4. Proficient in the technical skills of management (such as forecasting, inventory control, and accounting).
5. able to mix each of these skills in just the right proportion to get the highest long-run net benefit to the organization.

Managers are given a variety of tasks to perform, from seeing there are enough resources to sustain the current year's activities to planning the next years sales campaign. Agribusinesses are unique to the normal concerns of managers in other types of businesses. The agribusiness manager must deal with the additional burden of uncertain weather, disease, changes in technology, changes in government policy, plus the perishable nature of the products. Plus the biological and institutional factors surrounding the production of food and fiber.

2.3 The Role of Management

In any organization there are people who see that things get done. They are the managers. Management utilizes a variety of skills found in such areas as statistics, psychology and engineering in accomplishing its tasks. Management is accomplishing tasks through people.

2.4 What Management Is

- Part art
- Supported by service
- Accomplishing tasks through people
- The practice of management combining the right amounts of technical know-how, economic logic, and judgment to fit the situation
- Obtaining results that exceed the sum of the parts, the size of this difference is the measure of the manager's contribution.

2.5 Managerial skills required for agribusiness management:

1. **biological and technical skills**; a strong understanding of biological factors inherent in agricultural production and capability to use methods, techniques and equipment involved in specialised area such as plant breeding, pig production (etc).
2. **Conceptual skills**; the mental ability to see the organisation as a whole, coordinate and integrate all its activities, think strategically and make long-term decisions.
3. **Human skills**; the ability to work with and through other people, motivate, facilitate, communicate, lead, get along with others and resolve conflicts.
4. **Analytical skills**; the ability to use tools and techniques to solve problems in a specific discipline such as marketing, materials management and logistics and finance.
5. **Entrepreneurial skills**; the ability to create new ideas and combine these with management and organisational skills, people, informational, physical and human resources to meet identified needs and create wealth.

2.6 Business Decision Making

A major part of the manager's time is spent making decisions that affect the future success of the organization. Good decision making is at the heart of successful management. The fundamental principles of decision making involve getting a clear understanding of the problem, weighing the alternatives, and efficiently implementing the best solution.

A Six- Step Decision Making Procedure

A six-step decision making procedure is explained below. The process involves identifying the problem, determining alternative course of action, analyzing the course of action, selecting the best alternatives, implementing the decision, and following up.

1. Identifying the Problem. A clear identification of the problem is often the most important and difficult step in the entire process, since what is perceived as the problem will often determine the type of action to be taken. The first step is to find out what the problem is exactly. Valuable sources of information are those people directly affected by the problem. It is important to be able to separate the symptoms from the problem to ensure that you are in fact dealing with the real problem.

2. Determining Alternative Course of Action. Once the problem is clearly identified and concisely express, it is necessary to develop a list of all pertinent courses of action that may solve the problem. What is important is to identify all the relevant alternatives. It should be remembered that doing nothing is often an alternative worth considering. After some reflection, you should be able to select several alternatives that look promising for further consideration.

3. Analyzing the alternatives. The first step in the analysis of alternatives is the selection of an appropriate, measurable criterion (for example, sales, costs, profits, or units produced) which will permit evaluation of each alternative. The second step is to select a method of analysis that will provide you with an objective reading of the criterion chosen. The third step is to carry out the analysis.

4. Selecting the Best Alternative. If you have done your job well in the preceding three steps all that is required is, using measurable criteria, choose the best alternative and consider both long and short-run objectives.

5. Implementing the Decision. The completion of this step requires the establishment of a mechanism to ensure that the decision is transformed into a reality as quickly and efficiently as possible. Remember that poor implementation can ruin a good decision.

6. Follow Up. Once the first steps have been completed, it is beneficial to measure your success, by reviewing the results of the decision and the decision-making process. This review can be worthwhile for several reasons. First, it provides you with a way to assess your general decision – making skills. Second, if the decision involved a recurring problem, the follow up may help you better understand the problem and therefore make it possible to handle the problem better and more quickly in the future. Third, it can also help you identify the good managers that work for you. They are the ones that can accurately assess the situation, weigh the alternatives, and effectively implement the solution.

2.7 The Four Functions of Management

The foregoing discussion explicates the role of agribusiness management and sought to find answers to the fundamental questions: what is management? Why is it important? What do managers actually do? What are the qualities of a good manager? Managers carry out a number of tasks. They plan sales campaigns. They review the performance of businesses and personnel. They set up new departments in their firms. They order material for production (etc). Therefore management can be defined as the process of setting and achieving goals through the execution of four basic management functions that utilize human, financial and material resources. Four management functions are primarily used: planning, organization, controlling and directing.

2.7.1 Planning

The Planning function is regarded as the first function that all managers perform and lays the groundwork for all other functions. It deals with all the activities that determine the future direction or course of action for the organization. Planning is basically a process by which managers think through their goals and actions in advance. It should be carried out at nearly all levels of management. Since planning is about what will happen in the future a major part of this function is forecasting. *Business Forecasting* involves evaluating both the past and the current situation and making predictions of consumer demand and business conditions sometime in the future. Planning should be applied to many areas of business, including finance, marketing, production and inventory. Planning begins with the organization determining its purpose and objectives in its marketing plan. The purpose should tell the owner, the employees, and the public in clear, concise terms what the firm intends to do. Objectives tell how the firm will accomplish its purpose.

Planning:

- identifies the firm's goals and alternatives
- identifies the quantity and quality of resources available to meet the stated goals
- maps out possible options, analyses and selects the best course of action

2.7.2 Organizing

Once the firm has made its plans it is necessary to develop a way to transform them into reality. This requires an organizational scheme that can accomplish this quickly and efficiently. The Organizing function basically involves developing the organizational structure and allocating the human resources to accomplish the stated objectives. The organizational structure also can have a great deal to do with how employees perceive their work and make decisions. Activities necessary to achieve the objectives are grouped working divisions or departments to give a network of interdependent units. Firms may organize according to business functions, along production lines or by geographic location.

Organizing involves:

- setting up the structure (organogram)
- determines jobs to be done
- clarifies individual tasks
- defines individual tasks
- defines lines of communication
- clarifies communication channels

2.7.3 Controlling

The third function of management, controlling, refers to management's need to measure the organization's progress towards the goals set in the planning process. Controlling deals with establishing standards for performance, measuring performances against established standards, and dealing with deviations from established standards. It thus attempts to prevent problems, to determine when problems do exist, and to solve the problems that occur as quickly as possible. The amount and type of formal controls are usually dictated by the size and complexity of the organization. Controls are found at all levels and can include measures of an individual's progress as well as the progress of entire departments and organizations. Control should not impede the progress of the organization toward its purpose and objectives but should provide an early warning of deviation.

Controlling involves:

- setting up performance standards
- measuring current performance
- compares observed performance to established standards
- implements corrective actions

2.7.4 Directing

The fourth function of management is where the planning, organization and controlling functions are brought together to transform the plan into a reality. Directing is aimed at getting the members of the organization to move in the direction that will achieve its objectives. It involves the implementation of the other three functions and normally consumes about 90 percent of a manager's time. In each instance, the manager meshes the plan, the physical resources, the organization, and the controls with the human resources in such a manner as to accomplish the desired objectives quickly and efficiently. This function of management requires skilful application and is what often separates the good manager from others. The success of the directing process hinges on the amount of enthusiasm a manager can generate among the employees. Proper management of personnel is important and the manager should motivate workers towards the achievement of the agribusiness' goals.

CHAPTER THREE: UNDERSTANDING THE ROLE OF MARKETING AND CONSUMER DEMAND

Part II: The Planning Function

The Planning function in an agribusiness is designed to put the firm in the best possible position relative to the future. It is arguably the most fundamental and important of the other functions. Planning begins with a careful examination of consumer demand. This information should be transmitted throughout the agribusiness organization, so its managers and employees can find more efficient and profitable ways to fully meet its customers' needs. Successful firms have a marketing plan at the center of their customer needs analysis. They employ forecasting procedures to anticipate changes in customer desires and in the prices of the goods and services they buy and sell. Budgeting is used to ensure that the firm can meet its customers' needs profitably. The three planning activities of marketing, forecasting, and budgeting are the subject of the next three chapters.

3.1 Introduction

Marketing may be one of the most misunderstood areas of business. In agribusiness marketing has played a significant part in providing consumers with an overwhelming assortment of food and fiber at the lowest prices found in the world. Marketing's purpose is to bridge the gap between the conflicting needs of producers and consumers. Most of its activities involve helping producers better understand the needs of consumers. In this way it helps producers decide what products to produce, when to produce them and how many to produce. Marketing activities are the largest part of agribusiness.

3.2 The Marketing Mission

Regardless of how an economy is organized, it must possess a marketing system to resolve the conflicting needs of producers and consumers. On one hand, there are producers who seek to maximize their long-run profits by selling large quantities of a small number of products at the highest possible prices. On the other hand, there are consumers who seek to maximize their long-run total satisfaction from all the products and services they consume. The marketing system is needed to resolve these conflicts. The marketing system helps producers determine what products consumers most desire and which products can provide the greatest profits. The marketing system also makes it possible for consumers to find the products that best meet their needs at the lowest prices.

3.3 Role of Marketing

- ❖ Helps to bridge the gap between the needs of the producers and consumers.
- ❖ Helps producers better understand the needs of the consumers so that they can meet those needs.
- ❖ Helps producers decide what to produce, how much, when, who should produce and for whom should goods be produced.

The Conflicting Needs that Marketing Seeks to Resolve

Producers seek to:

1. Maximize Long-run profits
2. Sell large quantities of a small number of products
3. Charge the highest prices

Consumers seek to:

1. Maximize the satisfaction they receive from the product they consume with their limited incomes
2. Buy small quantities of a large number of products
3. Pay the lowest prices

3.4 Definition of key marketing terms

- ❖ **Marketing** refers to the performance of all business activities involved in the flow of food products and services from the point of initial production until they are in the hands of consumers. This definition suggests a mutual interdependence between farmers and food marketing middlemen. The food marketing activities complement the agricultural production process.
- ❖ A **market** is defined as an arena for organizing and facilitating business activities and for answering the basic economic questions: what to produce, how to produce, and how to distribute production. A market may be defined by location (eg Mbare Musika); product (eg grain market); time (eg May soybean market); or by level (eg retail food market).
- ❖ The **marketing system** is composed of alternative product flows (called marketing channels), a variety of firms (middlemen), and numerous business activities (marketing functions). The system consists of interrelated component parts that contribute toward overall firm, industry and social goals.

3.5 Marketing and the Five Barriers to Consumer Satisfaction

In any economic system there are always barriers that prevent producers from efficiently satisfying consumer needs. These barriers include separations of *space*, *time*, *information*, *value* and *ownership*. Therefore the function of every marketing system must be to overcome these barriers.

3.6 The nine functions of marketing

Regardless of the type of economic system a society chooses, its marketing system must perform nine separate marketing functions if it to overcome the five barriers to consumer satisfaction listed above and increase the level of economic satisfaction to society. A **marketing function** is defined as a major specialized activity performed in accomplishing the marketing process. The nine most important marketing functions are outlined below:

- ❖ The exchange functions are those activities involved in the transfer of title to goods. In this category are the **buying** and **selling** functions, both of which must be

performed in the marketing system if product exchanges are to occur. Their accomplishment overcomes the ownership barrier to consumer satisfaction by allowing the legal transfer of product ownership from sellers to buyers.

- ❖ The physical functions are those activities that involve handling, movement, and physical change of the actual commodity itself. They are involved in solving the problems of when, what, and where in marketing. Examples of physical functions are storage, transportation, and processing;
 - The **storage function** is primarily concerned with making goods available at the desired time. It overcomes the time barrier to consumer satisfaction by maintaining the product in good condition between the time of production and the time of sale.
 - The **transportation function** is primarily concerned with making goods available at the proper place. It overcomes the space barrier to consumer satisfaction by moving the product from where it is produced to where the consumer is willing to purchase it.
 - The **processing function** includes all those essentially manufacturing activities that change the basic form of the product, such as converting wheat into flour. It overcomes the value barrier to consumer satisfaction by transforming a product to a form that has greater value to the consumer.

- ❖ The facilitating functions are those that make possible the smooth performance of the exchange and physical functions these activities are not directly involved in either the exchange of title or the physical handling of products. They are the grease that makes the marketing machine go round. These include:
 - **Grades and standards** overcome the information barrier to consumer satisfaction by developing uniform descriptions of commodities and products. This simplifies buying and selling, because it makes sale by sample and description possible.
 - The **financing function** involves the use of money to carry on the various aspects of marketing. It overcomes the value, time, and space barriers to consumer satisfaction by providing funds necessary to pay for the production, storage and transportation of the product before the money is received from its sale.
 - The **risk-bearing function** is the accepting of the possibility of loss in the marketing of a product. It overcomes the time barrier to consumer satisfaction by assuming the risk of loss before consumption. Physical risks occur from destruction of or deterioration of the product itself by fire, accident, etc. market risks are associated with changes in the values of a product as it is marketed, eg due to price fluctuations, competition, changes in consumer tastes, etc.
 - The **marketing information/intelligence function** is the job of collecting, interpreting and disseminating the large variety of data necessary to the smooth operation of the marketing process. It overcomes the information barrier to consumer satisfaction by developing the means to disseminate this type of information.

The nine marketing functions and the barriers to consumer satisfaction they help to overcome

The exchange functions

1. Buying-ownership separation
2. Selling- ownership separation

The physical functions

3. Storage- time separation
4. Transportation- space separation
5. Processing- value separation

The facilitating Functions

6. Grades and standards- information separation
7. Financing- value, time, and space separation
8. Risk taking- time separation
7. Market information- information separation

3.7 The four utilities of marketing

Another way to describe marketing is to look at how the performance of the marketing functions adds value to the products intermediaries in the marketing system add value by performing the nine marketing functions described above. The value addition gives consumers greater satisfaction from these products. This satisfaction is called utility.

- ❖ **Form utility** is derived from processing the product into a form that is more desirable in the eyes of the consumer eg processing potatoes into fried chips.
- ❖ **Place utility** is derived from having the product at the location desired by the consumer.
- ❖ **Time utility** is derived from having the product available when the consumer desires it.
- ❖ **Possession utility** is derived from transferring ownership and control of the product to the consumer.

3.8 Essentials of agribusiness marketing

The four utilities are added to the products by performing one or more of the nine marketing functions. Form utility is achieved through the processing function. Place utility is achieved through the transportation function. Possession utility is accomplished though both the buying and selling functions. Thus the nine marketing functions, the four utilities of marketing, and overcoming the five barriers to consumer satisfaction are all parts of resolving the conflicting needs of producers and consumers.

The following relationships are important:

- To bridge the gap between the conflicting needs of producers and consumers, someone must perform the nine marketing functions.
- Performance of the nine marketing functions adds time, place, form, and possession utility to products.
- Performance of the nine marketing functions also overcomes the time, space, value, information and ownership barriers to consumer satisfaction.
- Successful performance of the marketing functions increases the level of efficiency of the economic system.
- Increasing the efficiency of the economic system increases consumer satisfaction, increases profits for producers, and improves resource allocation for society.

3.9 The marketing plan

Successful marketing begins with the development of a marketing plan. The farmer's marketing plan consists of a set of objectives, strategies, and tactics that assist an individual farmer in making production and marketing decisions. It sets the direction and tone of the agribusiness's marketing efforts. The steps in developing the marketing plan are outlined below:

- ❖ Formulate a clear, concise statement of the firm's purpose that indicates *what* specific consumer needs it is going to fill
- ❖ Establish the firm's objectives, which indicate *how* the firm is going to accomplish its purpose

The marketing plan gives a complete assessment of all the factors affecting the consumer needs the firm hopes to fulfill. The plan covers the following topics:

- The current market situation: gives the general background on the market in which your products will be sold
- Opportunities and issues analysis: based on analysis of the current plan the Manager identifies the market opportunities and issues the firm and its products are likely to encounter.
- The marketing strategy: based on the analysis carried out in the first two parts above, the manager devises a plan to accomplish the firm's marketing objectives.

3.10 The marketing mix

The manager is looking for the right combination of factors that will completely satisfy the needs of the firm's customers and give it larger profits. The marketing mix is the combination of **price, product, place, and promotion** used with a particular product. These factors are commonly referred to as the **four P's** of marketing. The goal is to have the right products, sold at the right places, and given the right amount of promotion (advertising).

CHAPTER FOUR: THE BASICS OF CONSUMER DEMAND

4.1 Introduction

At the heart of economic systems is the demand for goods and services. In a free enterprise system consumers determine what is produced by what they buy. Producers must therefore correctly identify the needs of consumers and satisfy them adequately and effectively. This is particularly critical in agribusiness ventures where firms are dealing with perishable products.

4.2 Principles of consumer demand.

Given that consumers determine the final demand and hence the amount of sales that producers can realize, it is important to get an understanding of consumer behavior. As discussed in the preceding section, identifying and meeting consumer demand is at the center of the economic system. Because of its importance, economists and business managers have devoted a great deal of time and energy in trying to understand and predict consumer behavior. A discussion of the concept of consumer demand and the various factors affecting it is in order.

Definition of demand

Consumer demand is a schedule of how much consumers are *willing and able* to buy at various prices. Consumers must jointly possess the willingness and ability to purchase the given commodities- also known as **effective demand**. Merely willing to buy is quite different from actually purchasing. Sellers are only interested in those who are willing and able to buy. Generally consumers demand more of a commodity when its price goes down and relatively less when its price goes up. The inverse relationship between price and quantity is called the **law of demand**.

4.3 Factors affecting demand

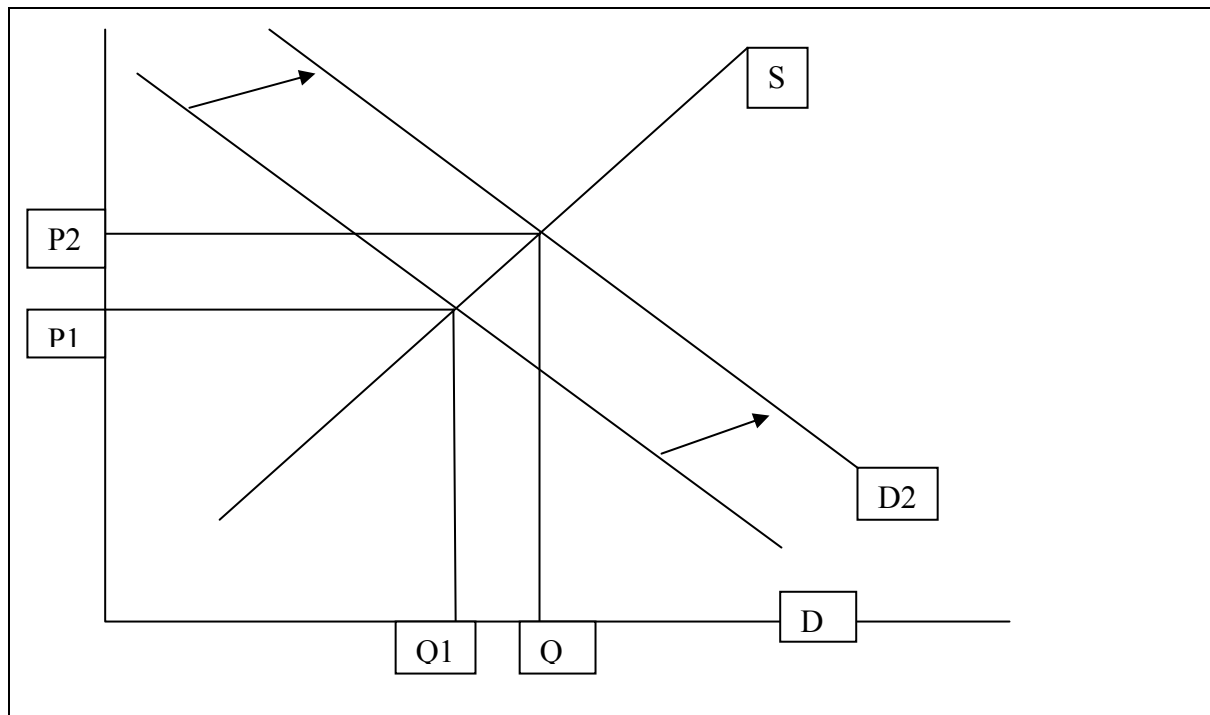
- 1. Own price:** The price of the commodity causes a change in the **quantity demanded** of that commodity. Quantity demanded and own price are inversely related.
- 2. Price of substitutes:** Changes in prices of substitute goods cause consumers to change their consumption patterns accordingly. Eg an increase in the price of coffee might lead to some people switching to tea, and the decrease in coffee prices could have opposite effects.
- 3. Price of complements:** Complementary goods are consumed together eg sugar and coffee. An increase in sugar prices might lead to less demand for coffee, and vice versa.
- 4. Income:** For most commodities, demand rises with income available to consumers. However in certain commodities, an increase in income is associated with less demand- these are called inferior goods eg beans.
- 5. Population:** More people mean more demand for the commodity.

6. Tastes and preferences: Consumer demands change over time. Changes in consumer tastes directly translate into changes in consumer demand.

7. Seasonality: Consumer demand is usually seasonal and fluctuates throughout the year. Eg consumers demand more coffee in winter than in summer.

4.4 Demand shifters

It is important to distinguish between movements along the demand curve and shifts in the demand curve. Only changes in own price causes movements along the demand schedule (quantity demanded). Other factors cause either an outward or inward shift in the entire demand schedule. The factors that cause a shift from one demand schedule to another are called demand shifters. The typical demand shift is shown below.



Causes of shift in demand

The shift of a demand curve takes place when there is a change in the relationship between quantity and price that is brought about by a change in any of the factors influencing demand *except price*. A demand shift results in a new demand curve. These include:

- Population
- Income
- Consumer tastes and preferences
- Price of substitutes
- Prices of complements

4.5 The concept of elasticity of demand

Price elasticity of demand (Ed) is a measure of the responsiveness of the quantity demanded for a commodity to changes in price of the same commodity. It is a measure of how consumers react to a change in price. Mathematically, it is the percentage change in quantity demanded as per the percentage change in price of the same commodity. The price elasticity of demand measures the sensitivity of quantity demanded to changes in price. If a 1% change in price brings a change in quantity demanded of more than 1%, demand is said to be **elastic**; if the percentage change in quantity demanded is equal to 1%, demand is **unitary**, and if the percentage change in quantity demanded is less than 1% demand is called **inelastic**.

Interpretation of elasticity

Value	Meaning
$E_d = 0$	Perfectly inelastic.
$-1 < E_d < 0$	Relatively inelastic.
$E_d = -1$	Unit (or unitary) elastic.
$-\infty < E_d < -1$	Relatively elastic.
$E_d = -\infty$	Perfectly elastic.

4.6 Determinants of price elasticity

A number of factors determine the price elasticity of demand:

- **Availability of Substitutes:** The more substitutes, the higher the elasticity, as people can easily switch from one good to another if a minor price change is made. Commodities for which no substitutes exist are generally inelastic
- **Percentage of income spent on the commodity:** The higher the percentage that the product's price is of the consumers' income, the higher the elasticity, as people will be careful with purchasing the good because of its cost.
- **Necessity:** The more necessary a good is, the lower the elasticity, as people will attempt to buy it no matter the price, such as the case with medical drugs. On the other hand goods viewed as luxuries are generally more price elastic.
- **Degree of aggregation:** The broader the definition of the commodity, the lower the elasticity. For example demand for meat in general is less elastic than the demand for beef.

4.7 Mathematical definition of elasticity

Price elasticity of demand is the percentage change in quantity demanded of a commodity given a 1% change in its own price. Mathematically the coefficient of price elasticity of demand for a given product is given by:

$$E_d = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}} = \frac{\Delta Q_d / Q_d}{\Delta P_d / P_d}$$

For example if the price of a good, say caviar, increases from \$20 to \$25 per pound (a 25% increase) and the quantity demanded declines from 100 pounds to 50 pounds (a 50% decrease), own price elasticity of demand is given by $-50\%/25\% = -2$. Thus for each percent increase in the price of caviar, there is a 2% decline in quantity demanded.

4.8 Price elasticity and total revenue

There is an interesting relationship between price elasticity of demand and total revenue realized by agribusiness firms. Knowledge of price elasticity coefficients facilitates manager in setting prices and in forecasting future sales. Elasticity of demand varies along the demand schedule and so does the revenue. As price decreases in the elastic range, revenue increases, but in the inelastic range, revenue decreases. The relationship between total revenue and elasticity of demand can be summarized as follows:

- When the price elasticity of demand for a commodity is **inelastic** ($|E_d| < 1$), the percentage change in quantity demanded is smaller than that in price. Hence, when the price is raised, the total revenue of producers rises, and vice versa.

- When the price elasticity of demand for a good is **elastic** ($|E_d| > 1$), the percentage change in quantity demanded is greater than that in price. Hence, when the price is raised, the total revenue of producers falls, and vice versa.
- When the price elasticity of demand for a good is **unit elastic** (or unitary elastic) ($|E_d| = 1$), the percentage change in quantity is equal to that in price.
- When the price elasticity of demand for a good is **perfectly elastic** (E_d is undefined), any increase in the price, no matter how small, will cause demand for the good to drop to zero. Hence, when the price is raised, the total revenue of producers falls to zero. The demand curve is a horizontal straight line.
- When the price elasticity of demand for a good is **perfectly inelastic** ($E_d = 0$), changes in the price do not affect the quantity demanded for the good. The demand curve is a vertical straight line; this violates the law of demand.

Relationship between price, total revenue and elasticity

<i>Ed</i>	<i>Elasticity</i>	<i>Effect on total revenue</i>
<1	Inelastic	Price rise → total revenue up
		Price decline → total revenue down
=1	Unitary	Price rise → total revenue unchanged
		Price decline → total revenue unchanged
>1	Elastic	Price rise → total revenue down
		Price decline → total revenue up

4.9 Cross elasticity of demand

The **cross price elasticity of demand** measures the responsiveness of the demand of a commodity to a change in the price of another commodity. It is measured as the percentage change in demand for the first good (A) that occurs in response to a percentage change in price of the second good (B). Cross price elasticity of demand is used to distinguish between complements and substitute commodities. The general formula used to calculate the coefficient of cross elasticity of demand is:

$$E_{A,B} = \frac{\% \text{ change in demand of product A}}{\% \text{ change in price of product B}}$$

For example, if, in response to a 10% increase in the price of margarine, the demand for butter increases by 20%, the cross elasticity of demand would be $20\%/10\% = +2$. Generally a rise in the price of a **substitute** commodity causes an increase in the demand of the substitute

commodity as consumers switch to the relatively cheaper commodity. On the other hand **complements** normally have negative cross-price elasticity as price changes inversely affect the quantity of demanded in much the same way as changes in the price of the commodity do.

4.10 Income elasticity of demand

The **income elasticity of demand** measures the responsiveness of the demand of a commodity to the change in the income of the people demanding the commodity. It is calculated as the ratio of the percent change in demand to the percent change in income. For example if in response to a 10% increase in income, the demand for bread increases by 20%, then the income elasticity of demand for bread would be $20\%/10\% = 2$. For each percentage increase in income, the demand for bread would increase by 2 %. Income elasticity of demand is used to characterize goods as inferior or normal depending on the sign of the elasticity coefficient. Basic definitions are given below:

- A **negative** income elasticity of demand is associated with inferior goods. An increase in income will lead to a fall in the demand and consumers switch to more attractive substitutes.
- A **positive** income elasticity of demand is associated with normal goods. An increase in income will lead to a rise in demand. If income elasticity of demand of a commodity is less than 1, it is a necessity good. If the elasticity of demand is greater than 1, it is a luxury good or a superior good.
- A **zero** income elasticity (inelastic) demand occurs when an increase in income is not associated with a change in the demand of a good. These would be sticky goods.

CHAPTER FIVE: BUDGETING AND BUDGET ANALYSIS

Chapter Objectives:

- ❖ Introduce the purpose of budgeting;
- ❖ Identify the three major types of budgets and how they are related;
- ❖ Show the benefits and limits of budgets; and
- ❖ Show how the budgeting process works.

5.1 Introduction to budgeting

Once an agribusiness firm has identified and determined its customers' needs and developed ways to keep abreast of changes in these needs through forecasting, it should complete its planning process by determining if it can meet these needs profitably. To do so requires knowing how to budget. The process of putting financial plans on paper in an orderly fashion is called **budgeting** and the plan is called a **budget**. Budgeting results in a master financial plan or "blueprint for action" for a specific period of time (usually one year) that has the following three parts:

1. An operating budget;
2. A cash flow budget; and
3. A capital expenditure budget.

5.2 The purpose of a budget

The budgeting process makes the manager ask for example, why labor costs or delivery costs are as high as they are and what can be done about them. It makes management ask why their firm is losing business in some part of its trade territory or why the sales of a particular item is falling off, and what can be done about it. The purpose and importance of budgeting in agribusiness can be summarized as follows:

- ❖ Budgeting involves "testing it out on paper" before committing resources to a plan or to a change in an existing plan. It is therefore a forward looking tool and a way to estimate the profitability or feasibility of a plan before making the decision to implement it.
- ❖ The best argument for budgeting is that the act of putting things down in writing gives managers a guide for actions. Forecasting sales, determining the actions and decisions that will be required, estimating the time and materials that will be needed, and putting dollar figures on each of them gets management on the track toward achieving the desired or planned results.
- ❖ A budget is a model of what management realistically thinks the future holds for the firm. It is the financial plan of management's expectations for the business during a specific time period.
- ❖ Suppose that the business is a combined farm supply and grain elevator, then management may need to develop separate budgets for each part of the business. These separate division budgets can then be put together into one master budget for the enterprise.

5.3 Types of Budgets

There is a wide diversity in the field of budgeting and each of the processes is intended to yield specific results. Budgeting types range from partial budgets, enterprise budgets, whole farm or total business budgeting, and break-even budgets. However most well managed agribusinesses end up with at least;

1. An operating budget
2. A cash flow budget
3. A capital expenditure budget

The three budgets are connected in several ways and each has a special purpose in the business.

5.3.1 The Operating Budget

- ❖ This budget summarizes the expected of planned sales, production activities, and related costs for the budgetary period.
- ❖ It is an estimate of sales and income plus the fixed and variable expenses that the firm will experience during the specified time. In other words the operating budget gives managers a look at the cost and revenue behavior that can be expected in the upcoming months.
- ❖ The starting point in budgeting has to be sales since income is the lifeblood of any business. The process of developing sales estimates begins with the marketing plan. It also includes any changes in potential sales due to new competition, new products, or changes in the economy.
- ❖ Once the sales estimate of the operating budget has been developed, the costs or expenses, can be prepared. This requires forecasting both the variable/operating expenses and the fixed costs.
- ❖ An operating budget, however, is a positive statement of what management expects to accomplish in the coming period (such as an increase in advertising, the introduction of a product, or a reduction in the sales force) to achieve its objective of maximizing the long-run profits of the firm.
- ❖ Hence, a budget is a critical planning document that is the result of having a clear purpose, concise objectives, and a well defined marketing plan.

5.3.2 The Cash Flow budget;

- ❖ This budget summarizes the amount and timing of the cash that is expected to flow in and out of the business during the budgetary period.
- ❖ Cash inflows normally come from sales and services from borrowing from sales of capital items, and from payments collected on accounts receivable.

- ❖ Cash outflows can include payments for goods and services purchased from someone else, principal payments on debt, taxes, salaries, and payments on capital purchases (for example, a down payment on a truck).
- ❖ The cash flow budget shows;
 1. When cash should be available to the business during a period (cash receipts); and
 2. When cash payments need to be made by the business (cash disbursements).
- ❖ *The cash flow budget is therefore used to ensure that the firm will have enough cash available when it is needed in the coming year. It also helps manager to plan when cash is likely to be in surplus or deficit and therefore reschedule their expenditure decisions.*

5.3.3 The Capital Expenditure Budget

- ❖ The capital expenditure budget shows how money projected for capital investments is to be allocated among the various divisions within the agribusiness during the upcoming time period. It is therefore a list of projects that that management believes worthwhile, together with the estimated cost of each project.
- ❖ Capital expenditures may be allocated for: maintenance of the existing plant and equipment; expansion of the plant, property and equipment, or the product lines; cost-reducing improvements (such as energy conservation) and/or health and safety.
- ❖ Capital budgeting is thus used to rank-order items in the capital priority. This ensures that the limited business capital is used in the most profitable manner.

5.4 Relating the operating Cash Flow, and Capital Expenditure Budgets

- The sales part of the operating budget provides the basic information for the cash flow budget.
- Only that part of sales that is actually expected to generate cash during the budget year is included in the cash flow budget. If a firm sells on credit, there is a lag between the sale and cash collection: therefore, these sales are not included in the cash flow budget.
- Cost of goods sold provides cash outflow estimates (after accounts payable decisions) for the cash flow budget. A firm buying on credit benefits from a waiting period before actually having to disburse cash.
- The capital expenditures budget provides information needed to identify big cash outflows. A major capital improvement may have a very large cash demand during a short period. The cash budget helps management ensure that funds are available to meet “lumpy” outflows for debt payments and capital purchase when they come due.

AN APPLICATION OF BUDGETING

Suppose that you are the manager of the Fertile Valley Supply Store.

Your firm specializes in merchandising feed and fertilizer. It has its own feed mill.

It has bulk, bagged and liquid fertilizer. Your firm can custom apply fertilizer with its own trucks and it can rent fertilizer applicators to farmers so they can apply fertilizer themselves.

Your store also sells herbicides, but not custom spray the herbicides.

Now suppose that the board of directors want to consider offering custom herbicide application services.

First, however, they want you to tell them what effects this might have on the business. Therefore they want you to develop an operating budget, cash flow and a capital expenditure budget for the next year to show income, expenses and financial condition might be affected.

5.5 Budget benefits

- In addition to helping the manger better understand the business, budgets provide a wealth of other benefits to the agribusiness.
- Budgets provide the yardstick by which business performance can be measured. Business success is often measured by comparing current performance to set standards of the agribusiness, and such analysis and appraisal requires good budgeting techniques.
- Another advantage of budgeting is that if the business takes an unfavorable turn, it can be quickly detected and corrective measures can be undertaken.

5.6 Budget limitations

- Budgets are only pieces of paper that represent managers' attempts to provide a financial blueprint for the agribusiness. When utilizing budgets it is important that mangers take note of the following:
- Budgets are estimates of what is likely to happen in future and that deviations are bound to occur as the time progresses. It is therefore important for managers to revisit and adjust their budgets in like of new developments.
- Budgets and budgeting can not take the place of good management, but are merely tools that can help management to be more effective. Managers therefore need to be competent in executing their planning, organizing, leading and controlling functions.

CHAPTER SIX: THE ORGANIZING FUNCTION

6.1 Introduction

Once an agribusiness has completed the planning function and determined how to satisfy its customer needs profitably, the manager need to devise an organizational structure that will permit the firm to accomplish its goals. One of the first decisions will be to choose a legal structure for the business. The way a business is structured can also have a great deal with its performance. The decisions surrounding who is responsible to whom and who makes what type of decisions can also affect the long-run success of an agribusiness. The section points out some of the major considerations associated with choosing the legal business structure.

6.2 Choosing a Legal Structure:

The choice of organizational structure is a very important decision for the agribusiness and must be made after carefully examining the both the short term and long run implications of such structures. There are basically three types of business organizations and these are briefly outlined as follows:

- a) **Single proprietorships or sole trader:** is thus defined as a business owned and controlled by one person or an individual and all profits from the business are received by that individual.
- b) **Partnership:** is defined as a business association of two or more persons.
- c) **Corporations:** a corporation is a legal entity, separate from people who own it or work for it. A corporation can sue or be sued in court, own property, and enter into contracts; it has almost all the rights and responsibilities of any individual.

6.2.1 The Sole Proprietorship

Usually refers to an individual who owns, manages, assumes all the risk, and derives all the profits from a business. A sole proprietor holds all rights in the business though he may be subject to policy regulations and laws.

Major Attractions

1. Business owner is the boss;
2. Decision making and operations, policy and goals rest in one individual;
3. Concentration of management avoids the problems of disagreements among owners;
4. The sole proprietor receives the rewards of good management and labor directly; and
5. The owner can quickly and easily expand or contract the size of the business, add or eliminate business activities and increase or decrease inventory as he or she sees fit.

Advantages and Disadvantages of sole proprietorship

Advantages

- Easiest to create
- Oldest and most popular business legal structure
- All profits go to the owner
- Owner makes all decisions on his own

Disadvantages

- All losses charged against owner
- Personal and business assets available to both business and personal creditors
- Business ends with death of owner and cannot be passed on to another

6.2.2 Partnership

- A partnership is a voluntary association of two or more persons to carry on, as co-owners, a business for profit.
- There are two basic types of partnership structure:
 1. Ordinary, or general
 2. Limited
- The important distinction between the ordinary and limited partnerships is that limited partners cannot have management control in the business.
- Partnerships are created by an oral or written agreement. The only legal requirement is that two or more persons combine to conduct business
- Many times a partnership will be created orally and involve merely an agreement to divide profits in a specified manner.

General legal Characteristics

- Each person involved participates in management decisions
- Assets are owned jointly
- Profits are shared
- Losses are shared
- The parties operate under a firm name
- The parties have a joint bank account for doing business transactions
- The parties keep a single set of business records.

Liability Considerations

- Each member of an ordinary partnership is, individually, fully responsible for all debts owned by the partnership.
- A limited partner in a limited partnership risks only the capital he or she has invested in the business.

Advantages and Disadvantages of a partnership

Advantages

- Easy to create
- Pays no income tax since profits distributed to partners as ordinary income
- Easy to dissolve

Disadvantages

- Succeeds only if each partner has faith and trust in other partners' business abilities
- Each partner is, individually, fully responsible for all debts owed by the partnership, however, this does not extend to personal debts of the other partners
- Business ends with death, bankruptcy, or incapacity of a partner.

6.2.3 The cooperation

The cooperation is defined as a legal entity separate and distinct from the shareholders who own it, from the individuals who manage it and from its employees. It is created by state law and organized for the purpose of carrying on a business for profit.

Major attractions

The cooperation offers advantages that are unparalleled by other legal structures. These benefits include limited personal liability, continuity of management, income tax minimization, estate planning and specialization of management decision making. There are also special employee benefit and medical plans in which corporations can participate but in which sole proprietors and partnerships cannot.

Advantages and Disadvantages of corporate structure

Advantages

- Liability limited to assets of the firm, and corporation has same legal rights as an individual can operate in perpetuity
- Lower tax rate generally
- Tax-deductible employee benefits

Disadvantages

- More difficult to create than a partnership or sole proprietorship
- More difficult to dissolve
- More reporting of activities required

6.3 Organizing for success

As stated before, the way a business is structured can have a great deal to do with its performance. This section goes about how to about the task of organizing so an agribusiness can function smoothly and efficiently.

6.3.1 Elements of successful business organization

- Focusing on customer, not employee, needs
- Clearly defining the purpose of the business
- Identifying the tasks critical to the accomplishment of the firm's purpose
- Giving priority to critical tasks so that the firm can maintain its competitive edge

6.3.2 Approaches to organizational structure

With the basics of organizational planning set, it is possible to focus on developing the actual business structure-that is, who reports to whom, who works for whom, etc. there are several principles that can help with this tasks;

- ❖ First, keep whatever system that is developed as simple as possible. Simplicity ensures that every one in the agribusiness have a clear view of what they are supposed to do and how their work contributes to the accomplishment of the overall corporate purpose and objectives
- ❖ Second, make sure that the critical tasks are given prominence in the structural plan, so employees are not unduly restricted in the accomplishment of their tasks
- ❖ Third, the working units within the organization should be kept small to permit its members to feel a part of the group's work effort, but large enough to challenge its manager in getting the work done
- ❖ Fourth, support staff should be kept to the minimum necessary to do the job

6.3.3 Types of organizational structures

There are several approaches that can guide the formal structuring of an organizational system. The alternative approaches are given below:

1. Organize by function. Under this approach, the departments would be established to represent the separate functions within the firm-sales, production, maintenance, purchasing, etc. this approach allows similar activities to be centralized. If a problem arises concerning any one function, it is easy to identify those involved. The major drawback, however, is that centralization result in some loss of flexibility for products that face unique or rapidly changing situations.
2. Organize by product. In this approach each department represents a product line sold by the firm, such as fertilizer, milk, etc. within this system, all activities associated with a particular product (sales, production, purchasing, etc) are centralized under one

manager or management team. This allows the firm to adapt quickly to changing market demand for its product. However some of the efficiencies and control of the functional approach are lost.

3. Organize by geographical location. In this system each department handles all the firm's activities in a specific geographic area. This puts the manager closest to the field in charge of operation. This system can, however, result in loss of efficiencies and control provided by the functional approach.

Principles of organizational structure

Keep organization as simple as possible

Give critical tasks priority in accomplishment

Keep working unit small

Keep support staff to a minimum

Organize by:

- *Function eg production, purchasing
- *Product eg milk, seed, grains
- *Geographical area eg Harare, Mutare

Make decisions at the lowest level possible

6.4 Cooperative Agribusiness

6.4.1 Introduction

The agribusiness is characterized by a unique institution called an agricultural cooperative. Cooperative organization has been adopted by farmers to overcome the various marketing challenges such as exploitation by middlemen

6.4.2 What is a cooperative?

A cooperative is defined as a business voluntarily owned and controlled by its member-patrons and operated for them on a non-profit or cost basis. It is legal, institutionalised entity that permits group action that can compete within the framework of other types of business organization. They are voluntary organizations set up to serve and benefit those who are going to use them.

6.4.3 Objectives of farmer cooperatives

Cooperative organizations seek to improve the economic welfare of their members. Their objectives can be summarized as follows:

- ❖ To provide farmers with a dependable, honest and accurate market for the products they sell and for supplies they purchase.
- ❖ To increase farmers' returns for farm products and to reduce the costs of farm supplies and services
- ❖ Provide a competitive yardstick by which other businesses that serve agriculture can be measured for quality, price and type of service they provide
- ❖ Provide a way to improve farmers' bargaining power in marketing their products and purchasing their supplies
- ❖ Provide a means to maintain the position of the family farm as the primary production unit in agriculture

6.4.4 Principles of cooperatives

The following are the general principles of the control and operation of agribusiness cooperatives:

- ❖ The cooperative must be owned and controlled by producers of agricultural products. This ensures that farmers are the beneficiaries of these organizations
- ❖ The return on the owner's invested capital shall be limited. This ensures that emphasis is placed on improving the efficiency of the marketing or buying activities rather than on capital appreciation.
- ❖ Voting is limited to one vote per member regardless of the amount of money invested. This ensures that all members are treated fairly by the organization and large investors do not dominate control of the organization.
- ❖ The cooperative must distribute the most of its net income back to the producers based on the amount of business done with the cooperative. This principle ensures that the organization operates for the mutual benefit of the farmers since most income above costs is returned to the members.
- ❖ At least 50% of the cooperative's business must be done with members. This helps keep the in the hands of the producers.

6.4.5 Kinds of cooperative business

Cooperatives can be classified according to the tasks performed, and the major categories are shown below:

- ❖ Marketing cooperatives are those through which farmers sell the products of their farms. These assist their farmers with the marketing of their products. The cooperatives may collect members' products for sale, grade, package and perform other functions to ensure the greatest possible amount for the products of their farmer-owners
- ❖ Purchasing cooperatives help their members with the purchase of production inputs, such as seed, fertilizer, fuel, etc.
- ❖ Service cooperatives are organized to provide their members with improved services such as credit, drainage, insurance, etc.

Sources of capital for agricultural cooperatives

EQUITY CAPITAL

***Stock**-normally must be purchased before using the cooperative. Additional shares often acquired as part of the patronage refund. Investment is for the long-run and considered permanent capital.

IN-BETWEEN CAPITAL

***Per-unit capital retains**- a reduction in the patronage refund done on a physical unit basis. Returned at a later date with oldest returned first. Not really a long-run capital device.

***Resolving fund**- same as above, except done as a percentage of patronage

DEBT CAPITAL

***Bonds, loans**- borrowing from outsiders with a specific date for repayment.

6.5 Management challenges facing agricultural cooperatives

With the growth in both the size and complexity of the organization, cooperatives often face a number of challenges ranging from financial, management and member relations. The basic management challenges are given below:

- The need to demonstrate the economic value of the cooperative and its principles to the users
- The ability to attract qualified, well-trained boards of directors who can effectively set the direction and the general policies of the cooperative
- The ability to attract qualified, well-trained managers who can effectively manage the cooperative
- The ability to meet the needs of all the members
- The need to develop a more stable, equitable capital base

CHAPTER SEVEN: THE CONTROLLING FUNCTION

7.1 Introduction

Once the agribusiness manager has developed a plan for the business and devised an organizational structure to accomplish the firm's objectives, he must devise ways to measure the business' progress towards its goals. This requires that the manager performs the controlling function. The chapter provides an overview of the basic concepts and techniques that can assist in the controlling function.

7.2 Organizing production using economic principles

Knowledge of economics provides the manager with a set of principles, procedures and rules for decision making. This knowledge is useful when making plans for organizing, operating and controlling the agribusiness. Economic principles consist of a set of rules, which together ensure that the choice or decision made will result in maximum profit. Good production management requires both technical and economic know-how. The production process must be technically efficient so that the maximum output is obtained from the inputs. This goal can be easily accomplished if the manager understands the basic underlying economic principles that influence profitability. It is to this task that the following sections are devoted.

7.2.1 The production process

Production occurs when inputs are used to produce some output or service. The production process involves the transformation of inputs into outputs. Agribusiness production is sometimes considered to include the provision of services such as grain drying, feed grinding and grain storage. Agribusiness managers face three major production decisions;

1. The "what to produce" decision: what types of products and services can the business profitably offer?
2. The "how to produce" decision: what combination of resources will be used in producing the products and services?
3. The "how much to produce" decision: how much of each product or service can the business profitably produce?

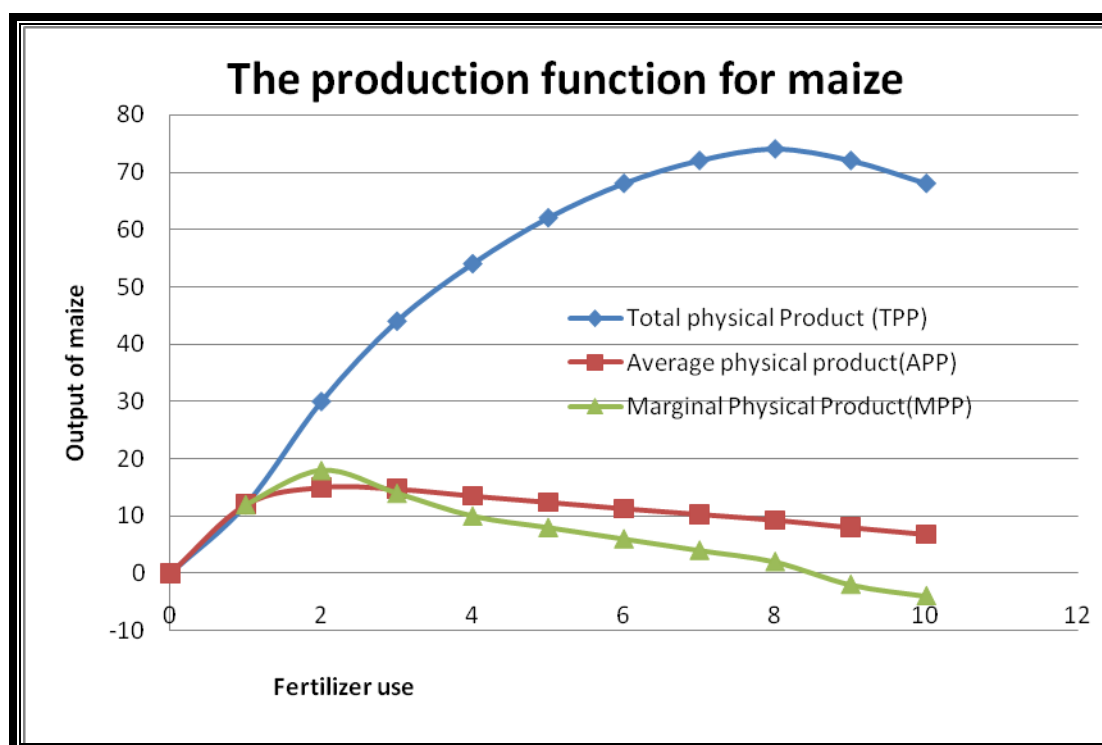
7.2.2 The production function

The production function is a systematic way of describing the technical relationship between inputs and outputs. It summarizes the output possible from different levels of input use. The table below shows the production relationship between fertilizer use and maize output. The figure below the table shows the graphical representation of the relationship.

Production function in tabular form

Input level	Total physical Product (TPP)	Average physical product(APP)	Marginal Physical Product(MPP)
0	0	0	
1	12	12	12
2	30	15	18
3	44	14.7	14
4	54	13.5	10
5	62	12.4	8
6	68	11.3	6
7	72	10.3	4
8	74	9.3	2
9	72	8	-2
10	68	6.8	-4

Graphical representation of production function



7.2.3 Average physical product (APP)

The average product is the amount of output obtained from a given level of input divided by the number of inputs used. APP is measure of efficiency and is given by the following equation:

$$APP = \frac{\text{Total Output}}{\text{Total Inputs}} = \frac{TPP}{X}$$

7.2.4 Marginal physical product (MPP)

The marginal product of variable input is the change in the total product (TP) associated with a unit change in the input, all other inputs being held constant. It measures the contribution of each unit of input to output, that is, the change in output from each additional unit of input. The formula is given below:

$$MPP = \frac{\text{Change in Output}}{\text{Change in onput}} = \frac{\Delta TP}{\Delta X}$$

CHAPTER EIGHT: COST CONTROLS AND BREAK-EVEN ANALYSIS

8.1 Introduction

A number of costs are important and useful in economics and for making management decisions. An understanding of costs is necessary to assess how the business has performed in the past as well as to plan for future activities. It is therefore imperative that management information systems provide accounting information that will allow the manager to determine costs as well as the means for effectively monitor and control business costs.

8.2 General cost concepts

- ❖ Implicit and explicit costs: Explicit costs are those associated with the procurement of inputs directly traceable to the end product, while implicit costs relate to costs that the business may not incur and which do not involve explicit payments.
- ❖ Fixed and variable costs: fixed costs are associated with owning fixed inputs and are incurred even if the input is not used. Fixed costs do not change with the level of production eg property taxes, rent payment, mortgage, and depreciation. On the other hand, variable costs change with the level of business activity eg feed, seed, fertilizer, labor, etc.
- ❖ Several additional cost concepts can be summarized as:
 - Total fixed costs(TFC)
 - Average fixed cost(AFC)
 - Total variable cost (TVC)
 - Average variable cost (AVC)
 - Total cost (TC)
 - Average total cost(ATC)
 - Marginal cost (MC)

8.3 Break-Even Budgeting and Analysis

Break-even analysis determines the level of dollar sales or units of output that will yield the firm no profits and no losses- the level at which total revenue equals total costs ($TR=TC$). The **break-even point** (BEP) is the point at which cost or expenses and revenue are equal: there is no net loss or gain, and the firm has "broken even". The break-even point can be calculated from the following computations:

$$\mathbf{Profit = 0 = P \cdot Q - VC \cdot Q - FC}$$

Where P= selling price per unit

Q= quantity sold

VC= total variable cost per unit

FC= total fixed costs

Rearranging gives the quantity that must be sold to break even:

$$\mathbf{BreakEven (Q) = \frac{FC}{P - VC}}$$

The result is that break-even quantity is found by dividing the fixed costs by the contribution per unit (P-VC).



Example

Assume the firm expects to sell 20 000 bags of seed in the coming year at \$125 per bag when the variable cost per bag is \$75. If the firm has overhead (fixed costs) of \$750 000, how many bags does the firm need to sell to break even? (Note that the question being asked is how many bags of seed, each contributing \$50 to overhead and profits, are needed to pay off the fixed costs of \$750 000?)

 **Answer**

$$\mathbf{BreakEven (Q) = \frac{FC}{P - VC} = \frac{\$750000}{\$125 - \$75} = 15000 \text{ bags}}$$

The break-even point (BEP) also can be calculated in dollar sales. This is done by using the contribution margin percentage rather than the dollar value of the margin. The formula used in this case is;

$$BEP = \frac{FC}{CM}$$

Where FC = fixed costs

CM = contribution margin percentage

BEP= break-even point in dollars

Applying the formula to the seed example would give

$$BEP = \frac{\$750000}{0.40} = \$1,875,000$$

This is the break even point in dollars and can be converted to bags as follows:

$$\frac{\$1,875,000}{\$125/bag} = 15000 \text{ bags}$$

This confirms the answer found before. Thus, the break-even point can be determined in units or dollars, depending on which is most appropriate

8.4 Additional Application of Break-Even Analysis

The break-even point helps to provide a dynamic view of the relationships between sales, costs and profits. A better understanding of break-even, for example, is expressing break-even sales as a percentage of actual sales—can give managers a chance to understand when to expect to break even. Break-even analysis has a variety of additional applications, including helping to determine selling prices, sales volumes and profit levels.

8.4.1 Meeting a Profit Objective

- ❖ Another use of break-even analysis is to determine the level of dollar sales needed to meet a preset percentage of sales profit objective. The formula using the contributing margin percentage is the most appropriate;
- ❖ For example, if a profit equal to 10 percent of dollar sales is necessary before a firm enters a market, the level of sales required to meet that objective can be calculated using break-even analysis. We will illustrate using the seed example and incorporating the required profit percentage (RPP) into the above equation. The revised formula would be:

$$BEP = \frac{FC}{(CM - RPP)}$$

The contribution margin percentage (CM) needs to be reduced by the required profit percentage because the full CM is not available to pay fixed costs.

Where $FC = \$750,000$

$CM = 0.40$

Required profit percentage (RPP) = 0.10

The minimum level of sales required would be:

$$\frac{\$750,000}{0.40 - 0.10} = \$2,500,000 = \text{break even point in dollars}$$

The profit of \$250,000 is 10 percent of the dollar sales, therefore, the profit objective is met. Annual sales must be at least \$2,500,000 for the firm to reach its profit objective.

8.4.2 Evaluating changes in fixed costs

Break-even analysis can help a manager evaluate the impact of changes in fixed costs. One method is to determine the change in the break even point for each dollar change in fixed costs. For example it can be used to answer the question: what is the minimum increase in dollar sales required to cover the costs for advertising? This can be determined by using the following variation of the break-even formula:

$$\frac{\text{Change in fixed costs}}{\text{Contribution margin percentage}} = \text{minimum change in dollar sales required}$$

Using the seed example contribution margin percentage of 0.40 and assuming a \$1.00 increase in advertising costs gives:

$$\frac{\$1.00}{0.40} = \$2.50 = \text{min change in \$ sales required to make it worthwhile}$$

Each additional dollar spent on advertising (or some other fixed costs) raises the break-even level of sales by \$2.50. Thus for advertising to be profitable, sales must increase by at least \$2.50 for each dollar spent on the advertising campaign.

8.4.3 Determining a selling price

Determining a proper selling price to meet profit objectives is also of value to the agribusiness manager. The following steps help;

Selling price per unit - variable cost per unit = contribution

Rearranging the terms gives;

Selling price = Contribution + variable cost per unit

Hence if the variable cost per unit is known, all that is needed to determine the selling price is the level of the contribution. Contribution can be determined by rearranging the terms in the break-even formula as follows:

$$Q = \frac{FC}{\text{Contribution/bag}}$$

$$\text{Contribution/bag} = \frac{FC}{Q}$$

Using the values from the seed example in the preceding section

Fixed costs = \$750,000

Profit goal (PG) = \$100,000

Variable cost/bag = \$75

Estimated Q = 17,000 bags

And applying them to the modified formula gives

$$\text{contribution/bag} = \frac{FC + PG}{Q} = \frac{\$750,000 + \$100,000}{17,000} = \$50$$

From this we can calculate the selling price per bag:

$$\begin{aligned} \text{Selling price} &= \text{Contribution/bag} + \text{Variable cost/bag} \\ &= \$50 + \$75 \\ &= \$125 \end{aligned}$$

A selling price of \$125 per bag is necessary for the firm to reach its profit objective given its costs and projected sales.

CHAPTER NINE: FINANCIAL STATEMENTS FOR BUSINESS CONTROL

9.1 Introduction

An understanding of the basic accounting documents is critical to the successful control of every agribusiness. This chapter presents these important concepts in a simple manner.

9.2 Basic concepts

Business records are called an accounting system, and serve the following purposes:

- It must present an accurate picture of the firm's current profitability
- It must give an estimation of the firm's current and future financial position
- It must provide management with information needed in day-to-day decision making
- It must provide a record of past performance for owners and tax collectors, and for other kinds of reporting required by local, state and federal government officials

9.3 The balance sheet

The **balance sheet** is a statement of the financial condition of a business on a specific date. It is also called a statement of financial position and represents a summary of an organization's balances. A balance sheet is often described as a **snapshot** of a company's financial condition. It is a systematic organization of everything **owned** (assets) and **owed** (liabilities) by the agribusiness at a given point in time.

Components of balance sheet

A company balance sheet has three parts: assets, liabilities and ownership equity. The main categories of assets are usually listed first and are followed by the liabilities. The balance sheet lists assets and liabilities and concludes with the estimation of the net worth or owner equity.

Assets

An asset is something of value owned by the firm. It is expected to provide future benefits to the firm, usually contributing to sales. Assets can be sold to generate cash or can be used to produce other goods. Assets are categorized as:

Current assets

These are either cash or other items that normally become cash as they are consumed in operating the business within the accounting period. Cash, accounts receivables, and inventories normally belong here.

- **Cash:** can be used immediately
- **Accounts receivable:** debts owed that are expected to be paid (received) during the

coming accounting period, usually a year or less.

- **Inventories:** includes readily marketable stocks and bonds and inventories of feed, grain and supplies.

Fixed assets

These assets provide benefits to the firm for a period greater than the accounting year. These include machinery and equipment, breeding stock, buildings, land, etc

Liabilities

A liability is an obligation to pay indebtedness. It represents the outsiders' claims against the business assets.

- **Current liabilities** are obligations that must be paid within the accounting period, e.g. accounts payable, principal and interests on long term debt that is due within the next accounting period.
- **Long term liabilities** are obligations that will come due after the accounting period, e.g. long term notes and contracts on land, buildings and equipment, less principal due within the accounting period.

Owners' equity or net worth is the difference between a firm's assets and its liabilities. It is an estimate of the value of the firm that would accrue to the owners if all liabilities were repaid. The basic accounting equation is given as follows:

$$\mathbf{Assets = Liabilities + Owners' Equity}$$

An example of balance sheet

Balance sheet for AgBiz Corporation: December 31, 2008		
Assets		
Current assets		
Cash	\$17,000	
Accounts receivable	30,000	
Inventories	127,000	
Total current assets		\$174,000
Fixed assets		
Land	250,000	
Building and equipment	660,000	
Less allowance for depreciation	170,000	
Total fixed assets		740,000
Other investments		
Cash value of life insurance	6,600	
Investment in stock in other companies	24,400	
Investment in subsidiaries	75,000	
Total other investments		106,000
Total assets		1,020,000
Liabilities and Owners' Equity		
Current liabilities		
Accounts and notes payable	\$53,000	
Accrued taxes payable	1,750	
Instalments due this year on long term debt	35,200	
Total current liabilities		89,950
Long term liabilities		
Long term notes payable		320,050
Total liabilities		410,000
Owners' equity		
Capital stock	390,500	
Retained earnings, January	177,200	
Net income for the year	42,300	
Retained earnings, December 31	219,500	
Total owners' equity		610,000
Total liabilities and owners' equity		\$1,020,000

9.4 The profit and loss statement

A profit and loss (P&L) statement summarises the revenues and expenses of a business over a given period of time. It is sometimes called an income statement and its purpose is to

measure the difference between revenues and expenses. The elements of the profit and loss statement are outlined as follows:

- ❖ **Revenue or sales** is the first element in the P & L statement. It refers to the amount received for the goods or services provided to the other firms or individuals.
- ❖ **Cost of goods sold** represent the direct costs to the business to either purchase or manufacture the goods that were sold to generate the revenue reported that accounting period
- ❖ **Gross margin** shows the income that remains to cover the expenses of selling the products and administering the business. It is given by the subtraction of cost of goods from revenue
- ❖ **Operating expenses** include the costs of operating and administering the business, outside cost of goods sold. The section is also called overheads and must include manager's salary, the cost of operating the front office, rent, utilities, etc.
- ❖ **Net income** represents the profits after income taxes have been paid.

Example of income statement

Profit and loss statement for AgBiz cooperation for the year ending December 31, 2008			
Revenue from sales Less:			\$1,465,000
Cost of goods sold			
Inventory, January 1	\$151,000		
Plus: goods purchased	1,105,000		
Cost of goods available for sale	1,256,000		
Less: Inventory, December 31	127,000		
Total cost of goods sold			1,129,000
Gross margin			336,000
Less:			
Operating expenses			
Salaries and wages	140,000		
Office expenses	3,400		
Selling and promotion	72,000		
Utilities and fuel	44,600		
Rent	5,000		
Depreciation	20,000		
Total operating expenses			285,000
Income before taxes			51,000
Allowances			8,700
Net income (to retained earnings)			\$42,300

9.5 The balance sheet analysis

The balance sheet is used to measure the financial condition of a business, its liquidity and solvency. The approach is called ratio analysis, and the common categories are:

1. Liquidity ratios
2. Solvency ratios
3. Activity ratios
4. Profitability ratios

9.5.1 Liquidity ratios

Liquidity is the ability to meet day-to-day cash needs of a firm. Its analysis concentrates on current assets and current liabilities. To measure liquidity, three ratios have been developed:

1. **The current ratio** is the relationship between current assets and current liabilities as listed on the balance sheet. It shows the firm's ability to meet its bills in the next period

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Year 1: } \frac{\text{current assets}}{\text{current liabilities}} = \frac{\$205,000}{\$41,500} = 4.94$$

$$\text{Year 2: } \frac{\text{current assets}}{\text{current liabilities}} = \frac{\$174,000}{\$89,950} = 1.93$$

In year 1 the firm had \$4.94 of current assets to meet each \$1.00 of current liabilities in the coming year. In year 2 it had \$1.93. Thus, though there had been some loss of liquidity from year 1 to the next, the firm still had adequate funds to meet its needs.

2. **The quick ratio** is the same as the current ratio except that the value of inventories is subtracted from the current assets, to reflect the less liquid nature of inventories, especially if bills have to be paid quickly.

$$\text{Year 1} = \frac{\text{current assets} - \text{inventories}}{\text{current liabilities}} = \frac{\$205,000 - \$151,000}{\$41,500} = 1.30$$

$$\text{Year 2} = \frac{\text{current assets} - \text{inventories}}{\text{current liabilities}} = \frac{\$174,000 - \$127,000}{\$89,950} = 0.52$$

In year 1 the firm had \$1.30 to meet each dollar of current liabilities. In year 2 it had fallen to \$0.52 per dollar of current liabilities. Thus if the firm had to pay its bills quickly and its inventories could not be sold in the next year, the firm could not meet its obligations

3. The acid test ratio

The assumption is that all bills must be paid tomorrow, and that inventories and accounts received cannot be converted to cash. The numerator includes only cash and marketable securities.

$$\text{Year 1} = \frac{\text{cash}}{\text{current liabilities}} = \frac{\$49,000}{\$41,500} = 1.18$$

$$\text{Year 2} = \frac{\text{cash}}{\text{current liabilities}} = \frac{\$17,000}{\$89,950} = 0.19$$

In year 1 the firm was extremely liquid, as it had \$1.18 in cash for each dollar it owed in the coming year. In year 2 the firm's liquidity was dramatically reduced to \$0.19 per dollar owed.

9.5.2 Solvency ratios

Solvency measures the relationship among assets, liabilities and equity. Basically two ratios have been developed to measure solvency.

1. The debt to equity ratio uses the values on the balance sheet that represent claims on assets. It is employed to determine the relative size of creditors' claims to owners or stockholders' claims and is the ratio of total debt (total liabilities) to owners' equity.

$$\text{Year 1} = \frac{\text{total debt} = \text{total liabilities}}{\text{owners' equity}} = \frac{\$343,100}{\$567,700} = 0.60$$

$$\text{Year 2} = \frac{\text{total debt} = \text{total liabilities}}{\text{owners' equity}} = \frac{\$410,100}{\$610,000} = 0.67$$

This ratio shows some deterioration for the AgBiz Corporation between year 1 and year 2. In the first year creditors had \$0.60 invested in the business by granting credit for each \$1.00 the owners had invested, in year 2 they had \$0.67 invested for each dollar of owners' equity

2. The times interest earned ratio measures the size of the organisation's pretax earnings relative to the interest payment.

$$\text{Year 1} = \frac{\text{income before taxes \& interest expense}}{\text{interest paid}} = \frac{\$36,000 + \$4,000}{\$4,000} = 10.0$$

$$\text{Year 2} = \frac{\text{income before taxes \& interest expense}}{\text{interest paid}} = \frac{\$51,000 + \$5,000}{\$5,000} = 11.2$$

For the AgBiz Corporation, though interest expense has risen, income has risen more. In year 1 there was \$10 of income for each dollar of interest due. In year 2 there were \$11 for each dollar due. Thus it would take a considerable drop in before-tax to place the interest payment in jeopardy.

9.5.3 Activity ratios

The third category of ratios deals with the relative activity of the business with respect to its inventory levels, customer credit payments, and its own bill paying

1. The inventory turnover ratio determines how much inventory to keep on hand, by calculating the number of times inventory is used up or turned over in the year. This is done by dividing the cost of goods sold as listed on the P&L statement by the level of inventory given on the balance sheet.

$$\text{Year 1} = \frac{\text{cost of goods sold}}{\text{inventory level}} = \frac{\$1,026,000}{\$151,000} = 6.79$$

$$\text{Year 2} = \frac{\text{cost of goods sold}}{\text{inventory level}} = \frac{\$1,129,000}{\$127,000} = 8.89$$

In year 1 AgBiz's inventory turned over 6.79 times, or once every 53.8 days (ie 365 days/6.79). In year 2 the inventory turned over 8.89 times, or once in every 41.1 days (365 days/8.89). Thus the inventory turned over more quickly in year 2 than in year 1.

2. The accounts receivable turnover ratio: how long a firm have to wait to get its money from credit sales; can be found by dividing the credit sales in the accounting period by the value of accounts receivable. (Here credit sales are assumed to be 10% of cash sales)

$$\text{Year 1} = \frac{10\% \text{ of sales} = \text{credit sales}}{\text{accounts recievable}} = \frac{\$125,000}{\$5,000} = 25$$

$$\text{Year 2} = \frac{10\% \text{ of sales} - \text{credit sales}}{\text{accounts recievable}} = \frac{\$146,500}{\$30,000} = 4.88$$

In year 1 the accounts receivable turned over 25 times, or once in 14.6 days. In year 2 they turned over 4.88 times, or once in 74.8 days. Thus, there was a substantial increase in the length of time (14.6 to 74.8 days) required to get money from credit sales. This requires managers to investigate the reasons why this is happening.

3. The accounts payable turnover ratio is similar to the one above, except that it measures how fast the firm pays its own bills. It is determined by dividing the value of credit purchases

during the year (on P&L statement) by the level of accounts payable recorded on the balance sheet. Assuming 25% of AgBiz purchases were made on credit

$$\text{Year 1} = \frac{\text{25\% of purchases}}{\text{accounts payable}} = \frac{\$269,250}{\$20,000} = 13.5$$

$$\text{Year 2} = \frac{\text{25\% of purchases}}{\text{accounts payable}} = \frac{\$276,250}{\$53,000} = 5.21$$

In year 1 accounts payable turned over 13.5 times, or once every 27.0 days. In year 2 they turned over 5.21 times, or once every 70.1 days. Thus, in year 2 it took over two and a half times as long for the AgBiz to pay its bills. This is a serious increase and deserves some management attention.

9.5.4 Profitability ratios

Three ratios are presented to assist in profitability analysis.

1. The return on investment ratio (ROI) measures the profit, or return on money invested in the firm, and is the relationship between before-tax profit (as found on the P&L statement) and total assets (as found on the balance sheet).

$$\text{Year 1} = \frac{\text{before tax profit}}{\text{total assets}} = \frac{\$36,000}{\$910,800} = 3.95\%$$

$$\text{Year 2} = \frac{\text{before tax profit}}{\text{total assets}} = \frac{\$51,000}{\$1,020,000} = 5.00\%$$

In year 1 there was a return of 3.95 percent on money invested in AgBiz; in year 2 this has risen to 5 %. Thus it appears that Management was using its resources more efficiently in year 2.

2. The return on owners' equity ratio is a more appropriate measure of return, given by the ratio of before-tax profit (on P&L statement) to owners' equity (from balance sheet).

$$\text{Year 1} = \frac{\text{before tax profit}}{\text{owners' equity}} = \frac{\$36,000}{\$567,700} = 6.34\%$$

$$\text{Year 2} = \frac{\text{before tax profit}}{\text{owners' equity}} = \frac{\$52,000}{\$610,000} = 8.36\%$$

Improvement is seen here, as return on owners' equity (return on owner-invested capital rose to 8.4% in year 2, from 6.3% the year before. This higher return may indicate a good job on the part of management.

3. The profit as a percentage of sales ratio measures the profit earned from each dollar of sales revenue. It is the relationship between the before-tax profit and total sales as given on the P&L statement.

$$\text{Year 1} = \frac{\text{before tax profit}}{\text{total sales}} = \frac{\$36,000}{\$1,250,000} = 2.88\%$$

$$\text{Year 2} = \frac{\text{before tax profit}}{\text{total sales}} = \frac{\$51,000}{\$1,465,000} = 3.48\%$$

This ratio also shows improvement. In year 1 profits for AgBiz were \$0.0288 of each dollar in sales revenue, while in year 2 they had risen to \$0.0348. This, too, may reflect good management.

CHAPTER TEN: THE DIRECTING FUNCTION

10.1 Introduction

The human resource is one of the critical factors that determine the success of any business venture. Successful management of human resources hinges on proper motivation of staff. This chapter deals with the fourth function of management: directing- how to supervise and motivate people to do their best. It identifies the factors that can influence human performance and explains ways to make workers happy and productive.

10.2 The value of the human element

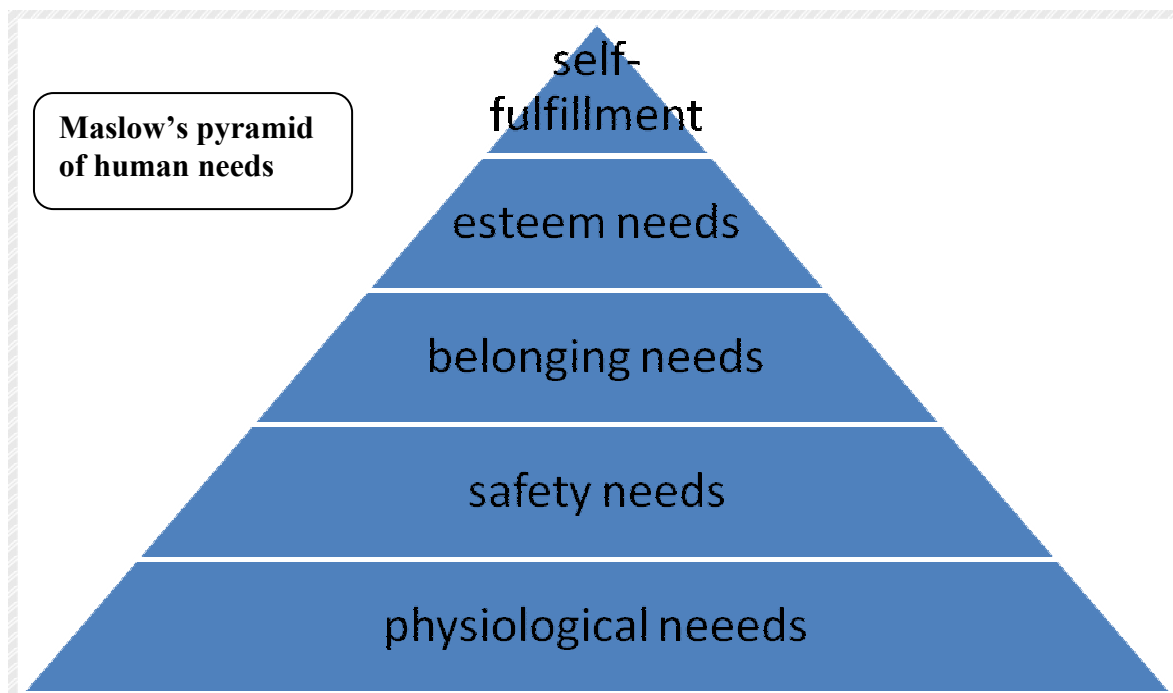
- ❖ Until the development of the modern management theory, many entrepreneurs viewed workers in the same light as machinery, buildings and other inputs to the production process
- ❖ Early scientific investigations reflected this orientation and followed the engineering line of thinking, with workers viewed as just another input
- ❖ It was not until the work of Elton Mayo at the Hawthorne plant that it was recognised that workers were more than self-centered “inputs”
- ❖ Mayo conducted a series of experiments, in which working conditions were varied and the effect of changes in the physical environment on work output was investigated
- ❖ There was no significant difference in performance between control groups and the

test group; hence they concluded that workers responded more to changes in the management systems and their relationship with managers. Changes in workers' perceptions of their managers (superiors) was more important

- ❖ This gave rise to the new definition of management, in which proper motivation of employees was viewed as a key to organizational survival.
- ❖ Management is accomplishing tasks through people. The task of managers becomes the directing of people so as to maximise the collective value of their individual strengths.

10.3 The value and role of work

Human beings are complex organisms that are driven by many physiological and psychological motivators of human activity. **Maslow** developed a hierarchy of human needs, in which the human needs are divided into five levels with the basic ones at the base of the pyramid. Human beings concern themselves primarily with the satisfaction of the lowest level of basic needs before they turn their attention to those above it. Once a level of needs has been fulfilled, it is taken for granted; it ceases to be a strong motivator for human behaviour and other factors become important. Hence the person turns his attention to fulfilling the needs at the next higher level.



- ❖ At the base of the pyramid are the physiological needs- the needs for food, shelter, water, etc.
- ❖ Next are the safety needs- the needs for protection from pain, danger, etc

- ❖ Third are the belonging needs- the needs for love, affection, and acceptance by others
- ❖ Fourth are the esteem needs- the needs for self-respect and the respect of others
- ❖ On the highest level are the self-fulfilment needs- the need to become everything of which you are capable of being

10.4 Developing a proper motivational environment

Motivating an employee to perform in a contented and productive manner is very difficult task. There are some general principles that can guide managers in this process.

Developing the organisational purpose and objectives

The first principle is for managers to examine the firm itself. This involves identifying what the business should be, how the firm should do whatever it does, and how it does what it does. Once the firm's purpose and objectives have been defined, they must be communicated to every member of the organization; all employees must understand and accept the goals as worthwhile.

Defining the tasks and jobs

With the purpose, objectives, and products firmly in mind, the managers should turn their attention to defining the specific tasks that need to be done to produce the product. These carefully examined, productive tasks are then logically combined into jobs.

Establishing the firm's identity

- ❖ Provide a clear, concise definition of the firm's purpose (ie what consumers needs it will fill)
- ❖ Provide a clear, concise definition of how the purpose will be accomplished (eg lowest prices, best selection)
- ❖ Communicate to every employee the firm's purpose and how it will be accomplished
- ❖ Make sure each employee understands and accepts these goals as worthwhile, and accepts his role in their accomplishment
- ❖ Identify the products or services that the firm will provide
- ❖ Define the tasks that need to be done to accomplish the purpose
- ❖ Combine compatible tasks to form jobs

Developing and controlling work

The development of jobs from tasks, organisational objectives, and the firm's purpose will help ensure that each task is carried out and that each job includes some meaningful activity. However, the translation of these plans into an interlocking system of jobs that actually produce a product or perform a service will require one or more managers. Managers are therefore required to direct, motivate and lead employees towards the attainment of organizational goals. Effective control requires the establishment of a clear line of authority between all levels of management.

Managers' responsibility in establishing a motivational environment

- Most mesh the tasks into jobs and the combine the jobs into a system that actually produces a product or service
- Must develop this system with customer needs, not employee needs, foremost in mind
- Must provide each employee with
 - the proper tools, equipment, and training
 - clear, concise instruction of how to perform the job
 - clear, concise understanding of how each job helps to accomplish objectives
- Must establish pay commensurate with job ad performance
- Must establish job performance standards in some measurable criterion
- Must give frequent and meaningful feedback to employees on their performance according to the performance standards
- Must work to establish and maintain a clear authority between all levels of management

10.5 Elements of the motivational environment

Developing a work environment where the employees and supervisors are satisfied and highly productive in very difficult. However there are a number of principles that can guide the organisation in developing a work environment that motivates employees;

- ❖ Understand and value the part that each employee plays in accomplishing the firm's goals
- ❖ Know the people you supervise are performing and give frequent feedback
- ❖ Communicate to workers that you know them, understand them, and accept them as worthwhile people
- ❖ Establish a feeling of trust and security between yourself and your employees
- ❖ Listen and actively solicit the opinions of your employees
- ❖ Provide a challenging work environment
- ❖ Apply the rules, rewards, and penalties fairly to all

10.6 Management styles

There are many ways that managers can get the job done. The management styles can be separated into many categories;

- ❖ The earliest management style (traditional approach) is regarded as the automatic approach. Here, all employees, except the owners, were given very little responsibility for their work. Workers were given close supervision since they were considered little more than people who shunned responsibility and would work only if directed.
- ❖ The traditional view prevailed until the Mayo's Hawthorne study that found workers to be more enlightened and responsive to better treatment by their superiors
- ❖ One of the proponents of the human relations theory was Douglas MacGregor, who referred to the traditional approach as **theory X** and the new approach as **theory Y**. Theory Y asserts that workers have a psychological need to work and actively seek achievement and responsibility, hence should be encouraged to participate in the planning of their work objectives. On the other hand, in theory X, all decisions and procedures are made by senior level executives.

Communication and feedback

It is vital to institute a strong communication system and to develop a feedback network to monitor the progress of the system. This ensures that all levels of management are informed of any information that could affect the organisation. An effective communication network should facilitate the exchange of information and enhance mutual understanding among the organisation's management and workers.

Elements of a good communication system

- Offers multiple lines of communication to most people to prevent bottlenecks and distortions
- Employs standard operating procedures for the routine matters which give exact details of what to do
- Supplements verbal commitments with written documentation to avoid confusion
- Maintains clear, concise, and accurate information in official channels of communication
- Offers two-way avenues of communication (ie top to bottom and bottom to top)
- Permits users of information to decide who should get information, how often and in what form

10.7 Dealing with Personnel

Certain legal requirements must be adhered to when the entrepreneur decides to employ personnel within the venture. Some of the requirements are related to the safety of the employees, general conduct of employers towards employees, insurance against loss of income of the employees.

The following are the legal aspects that should be adhered to when dealing with personnel:

- Workmen's Compensation Act (WCA); the moment the entrepreneur employs any personnel, he must complete and submit forms to the Workmen's Compensation Commissioner (WCC).
- The (WCA) covers employees against injury or disease sustained as a result of performing their duties.

The following is done once business is registered;

- A form is completed annually within 30 days of the financial end of the year of the venture; and
- Another form is compiled, which is the assessment established by the (WCC) for the amounts payable as premiums minus any payments in advance.

Unemployment Insurance Fund (UNIF)

Once the venture has been registered, the UIF will send the following:

- Forms indicating the monthly return for the premiums payable regarding UNIF; and

- Forms to be used when registering new employees.

Other Legislation Affecting Employees;

- The Wage Act regarding minimum wages
- Basic conditions of employment, which should be available on the premises of the venture.
- The Industrial Conciliation Act, which governs the employment conditions of all employees.

CHAPTER ELEVEN: THE BUSINESS PLAN

A business plan is a written document that clearly defines the **goals** of a business and outlines the **methods** for achieving them.

It describes:

- What a business does?
- How it will be accomplished?
- Who has to do it?
- Where it will be done?
- Why it's being done? and
- When it has to be completed?

Common features of business plan

- Is the management and financial blueprint for a business start-up and profitable operation.
- Is written by the business owner(s) with outside help as needed.
- Explains how the business will function and depicts its operational characteristics.
- Details how the business will be capitalized and managed.

Reasons for preparing a business plan:

1. To bring closure to the planning process;
2. To communicate to the firm the seriousness of the planning process and its outcomes;
3. To provide tangible framework for managing the firm and;
4. To give lenders and investors a real sense of assurance that the company can perform financially as is claimed.

A typical business plan will contain much of the following:

1) Company organization and product/service description.

- a) Company charter
- b) Organization
 - i) Officers functional descriptions
 - ii) Founders and officers resumes
- c) product/service description (*product plan*)

2) *market analysis*

- a) Product market overview
- b) Competition
- c) Product pricing
- d) Product market potential

3) *revenue distribution*

- a) Marketing plan
- b) Departmental budget development
- c) Income and cash flow

11.1 Elements of a business plan

❖ **BUSINESS DESCRIPTION**

Should include; business name, address, and owner identification. It identifies the business goals and objectives and clarifies why you are or why you want to be in business.

❖ **PRODUCTS AND SERVICES**

Explanation of all products and services. It describes what you are selling and why.

❖ **SALES AND MARKETING**

This is the core of your business rationale. Your plan should address several basic questions:

- *Who and how large is your market?*
- *What pricing and sales terms are you planning?*
- *How will you market your products and services?*

❖ **OPERATING REQUIREMENTS**

The plan should identify and describe the equipment, facilities, and people necessary to generate your products and services.

- *How will they be produced and made available to the customer?*

❖ **FINANCIAL MANAGEMENT**

Most critical part of your business plan. Your financial management plan should include:

- projected start-up costs.
- Expected profits or return on investment (ROI) for the first year.
- projected income statement and balance sheet for two years.
- Projected monthly cash flow statement for 12 months.

The final question is; will or does your company make a profit?

❖ **CONCLUDING NARRATIVE**

Should summarize your business goals and objectives and send a message that you are committed to success of your business.

11.2 Uses of a Business Plan

The overall purpose of a business plan is to provide a logical rational sense of direction and to provide a framework for guiding and evaluating the firm's accomplishments.

1. Internal Uses

- can improve performance by identifying both the strengths and weaknesses of the firm's operation and potential or emerging problem areas.
- can communicate to management and staff clear expectations regarding the firm's performance and priorities.
- provides a solid basis for measuring performance of the overall firm and of individual units and managers.
- used to educate and motivate the key personnel of a firm.

2. External Uses

- can be used to educate outside parties regarding the objectives, structure, and performance of a firm.
- can be used to secure funding from outside investors - either individuals or institutional.

11.3 Writing the Plan: The Format

Business plan outline:

1. Cover Sheet
2. Executive Summary
3. Table of Contents
4. Product Plan
5. Market Overview
6. Competitive Summary
7. History
8. Definition of the Business
9. Definition of the Market
10. Products and Services Description
11. Management Structure
12. Objectives and Goals
13. Financial Data
14. Appendixes

11.4 Strategic Planning

Strategic planning is a process by which key people in an organization can:

- Define or redefine the company's mission.
- Assess its current situation.
- Decide what they want the business to look like in say 3 to 5 years.
- Map out a course of action to bring the company from where it is now to where they want it to be,
- Recognizing its; *strengths, weaknesses, opportunities and threats (SWOT)*

DEVELOPING A STRATEGIC PLAN

Formulate dreams that are worth believing in and fighting for. The three challenges are:

1. Develop a vision statement

Your shared hopes, dreams and shared image of the future.

2. Draft a mission statement

Why your business organization exists, what business it's in and whom it serves.

A *mission statement* answers three key questions: who, what and why.

Why do we exist?

1. societal need and
2. stockholder need

Whom do we serve?

1. customers
2. areas

What do we produce?

1. products
2. services

3. Articulate core values

These will guide your day to day behaviour and collectively create your desired organizational culture.

ANALYSING THE EXTERNAL ENVIRONMENT

Study the following factors:

1. Political and legal

2. Economic

- patterns of economic growth
- inflation
- stock markets activities
- financial rate of return
- foreign exchange

3. Social

Social, cultural, demographic, and environmental changes have a major impact on virtually all products, services, markets and consumers.

Significant trends

- Black empowerment with regards to entering the job market, training, development and housing;
- More women entering the work force;
- More emphasis being placed on preserving the natural environment;
- More emphasis on healthy living;
- Growing squatter communities in need of housing and basic amenities such as water and electricity.

4. Technological

- Represent major opportunities and threats to the entrepreneur;
- Creates new markets and improved products and services, change cost structures and manufacturing processes.

5. Competitors

Collecting and evaluating information on existing or potential competitors is important for the entrepreneur.

6. Customers

Should use market research techniques to learn as much as possible about the problems and needs of their customers.

7. Suppliers

Must be sure that the supplier will be able to provide for the total demand.

ANALYSING THE INTERNAL ENVIRONMENT

The entrepreneur needs to undertake an analysis of each functional area that exists within the venture, such as;

- research and development
- marketing,
- sales
- management
- production
- finance

SWOT - ANALYSIS

The purpose of gathering data and conducting internal and external analysis is to establish an information base from which strategic plans will emerge. SWOT analysis involves a review of the organization's strengths, weaknesses, opportunities and threats.

THE FINANCIAL PLAN

- ❖ Financial planning will help you to determine the financial costs involved in starting or expanding the business.
- ❖ Financial planning should therefore be based on the market potential for your product or service, subsequent sales forecasts and knowledge of the facilities and equipment you will need to buy.
- ❖ It should also include knowledge of the labour market information on the kind of finance that will best suit your needs as well as who is most likely to provide that type of finance.

PURPOSE OF THE FINANCIAL PLAN

- ❖ help you predict fixed and variable expenses for the type of venture planned;
- ❖ assist you in obtaining start-up money;
- ❖ assist in the projection of financial needs; break-even points and profits for the next year or even two to three years; and
- ❖ Assist in projecting the monthly cash flow for the venture for at least the next year.

UNDERSTANDING MONEY SOURCES

Available sources of money

1. Capital generated internally.
2. Capital available from trade creditors.
- *Credit extended by suppliers*

3. Borrowed money.
 - Individuals
 - Insurance Companies
 - Commercial Banks
 - Agricultural Finance Corporations
 - Government loans
4. Sale of an ownership interest in the business to equity investors.

TYPES OF FINANCE

- ❖ **Long-term financing.** Finance payable over five years or more. Sources of such financing are the owners of the venture, stock owners, and long-term loans.
- ❖ **Medium-term financing.** This covers a period of one to three years and refers to bank-term loans, fixed-term advances and development loans issued by the various development corporations.
- ❖ **Short-term financing.** Covers a period of less than one year. (e.g) bank overdrafts and trade credit.

BASIC BOOKS USED IN FINANCIAL TRANSACTIONS

- ❖ **Journals:** details of every transaction should be recorded in chronological order, using the accounting debt and credit system.
- ❖ **Ledgers:** accounting books in which the information recorded in the journal is made more accessible. Separate accounts should be opened for each asset, liability, capital item, type of expenditure, debtor or creditor and the increases or decreases in each must be reflected.
- ❖ **financial statements**

MANAGING GROWTH

Explaining how the entrepreneur could conceive and successfully execute a focused plan of starting a new venture with the goal of developing it into a high-growth venture.

The life cycles of business ventures

Ventures with a high growth potential will go through the following stages in their life - cycles:

- Stage 1. Seed or Concept
- Stage 2. Start Up
- Stage 3. Product and Organisational Development
- Stage 4. Production and Market Evolvment
- Stage 5. Major Financing
- Stage 6. Rapid Expansion
- Stage 7. Maturity

Stage 1: Seed or Concept

- This stage is described as the dream or invention stage.
- The stage will end with a Business Plan and information of the Company.
- The length of this stage could be anything from one month to two years, depending on the sophistication of the product or service.

Stage 2: Start Up

- At least one principal person linked to the venture, usually the founding entrepreneur, is pursuing the project on a full-time basis;
- The business plan is developed and refined;
- A management team is identified;
- Market analysis is undertaken;
- Initial customers and suppliers are identified and
- Formal funding is accomplished.

Stage 3: Product and Organisational Development

The tasks at this stage are:

- Achieving market penetration
- Expanding initial sales
- Reaching break-even point by increasing productivity
- Reducing unit costs and increasing sales.

Stage 4: Production and market Evolvement

The Primary Focus at this stage is on achieving volume production along with market penetration.

- Cash flow management becomes critical
- Task at hand is to obtain consistent profitability
- Venture needs to explore foreign markets
- Attention should be given to customer service to ensure retaining customers.

Stage 5: Major Financing

The tasks at hand are:

- Doing Strategic Planning, which is aimed at increasing market share;
- Financial Institutions could be approached for the provision loans;

Stage 6: Rapid Expansion

Most challenging stage for the founding entrepreneur; has to let go power and control over key decisions and responsibilities

- Establish formal management and organisational structures, which would include the delegation of power, authority and responsibilities.
- The venture should become a cash provider and cash-flow management will become less critical, but will always remain important.

Stage 7: Maturity and Stability

- Strategic planning becomes an integral part of the organisational process
- Competitors start building their strategies around the venture and the venture becomes aware of the fact that new ventures could become a threat to its existence.
- The venture becomes self-sufficient as far as financing needs are concerned.

Readings required

Davis, J and Goldberg, R. (1957). **A concept of Agribusiness**. Boston: havard university.

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Beierlien, J.G. Schneeberg, K.C and Osburn, D.D. (1995). **Agribusiness Management**. Prospect heights, Illinois: waveland press

Padberg, D.I, Ritson, and L.M Albisu (1997). **Agro-Food Marketing**. New York: CAB international.

Ebert, Ronald J, and Ricky W. Griffin, (1995). **Business Essentials**. Englewood, Cliffs, New Jersey: Prentice hall.

Other readings will be assigned as required!