VALUE CHAIN ALLIANCE FOR LIVESTOCK UPGRADING AND EMPOWERMENT

Financial Literacy

TRAINING MANUAL

Government of Zimbabwe

ZAGP Zimbabwe AGRICULTURAL GROWTH Programme

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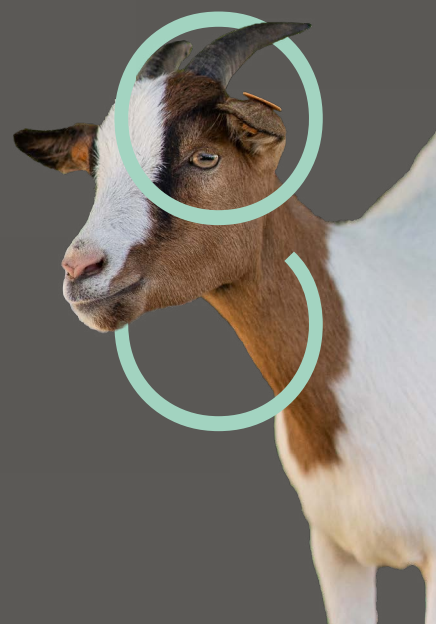

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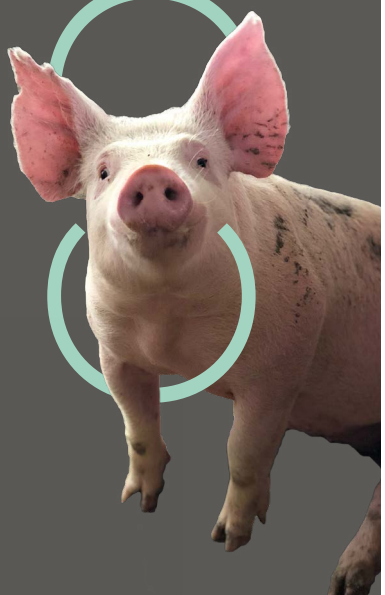

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Introduction

This training manual is intended to serve as a guide for the trainers so that they provide the necessary and relevant training methodologies and techniques to improve the financial literacy of the actors in the goat and pork value chains. Some of the actors in the Pork and Goat Value Chain actors have been operating without keeping proper financial records, properly managing farm business risk and saving and investing money. This module is a training tool for developing the capacities of enterprises in financial literacy. The target group is the small to medium farmers (including young and women farmers), lead farmers (anchor, champion), farmer groups, Business Management Unit (BMU), syndicate or cooperatives and integrators, who will be trained in this program to enhance their skills at individual and organizational levels. The trainees are expected to utilize the skills in their respective activities in the Goat and Pig Value Chains. Improved financial literacy will contribute to the overall growth and development of goat and pork value chains in the country.

02

Information and Instructions to the Trainer

This manual should be used purely as a facilitator's guide. The sessions under each module are presented with an outcome(s) to facilitate the assessment of participants' understanding and depth of knowledge at the end of each session. Following the outcomes(s) are the topics to be covered and facilitating methodology. However, the facilitator should feel free to adapt the methodology suggested to the needs of participants. To enhance a participatory learning process, some methods of presentation and the steps to follow are therefore outlined. The manual also provides some background information on each session. The information is also meant to aid the facilitator in the preparation for the session. Like all participatory methods, the involvement of the participants in all stages of the learning process is vital. However, all users of this manual must study and research into the content of each module before the presentation. Start each sub-topic and group activity by explaining the objective and learning outcomes expected of them, and ensure they are met. Though contents for each sub-topic are provided, lead the participants into giving their points, copy them in the flip chart/ whiteboard/chalkboard, some of their points will or may coincide with the contents in this Module, and then mention to them the items of sub-topics that were not pointed out by them.

The session should be interactive, participatory, lively and interesting. Let the participants express themselves in vernacular Language for them to understand the concepts. Encourage them to ask questions especially on concepts that they don't understand. Switch to either English or vernacular language when you find some or all of them do not understand you in one of the languages.

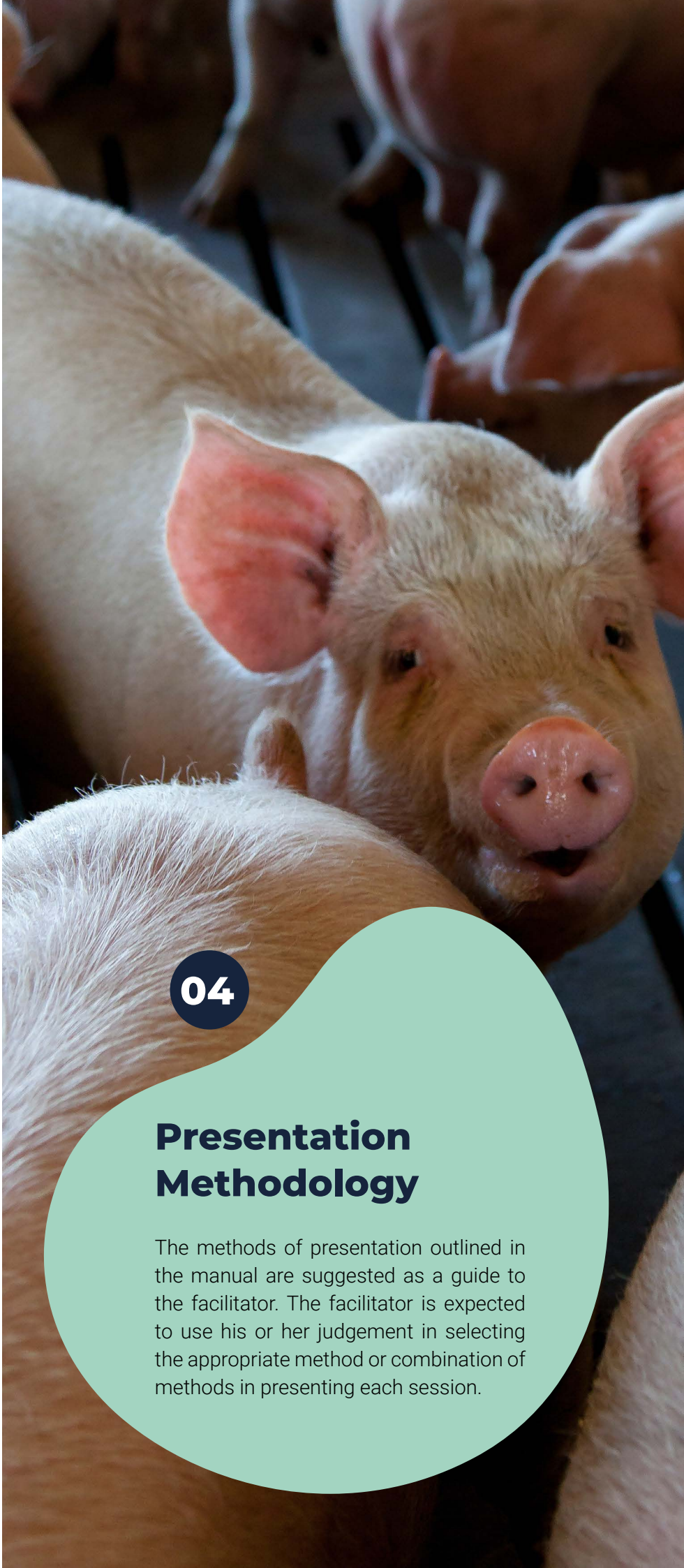
Start the session with greetings, welcoming remarks, and introduce yourself. Ensure you have the necessary stationeries for the trainees and equipment and materials: projector, flip charts or whiteboard, whiteboard markers, marking pens, and handouts. Be time conscious as you facilitate the Session

This Manual is organised around four units namely saving and investment, source of finance, risk management and accounting.

03

Users of the Manual

The manual is intended to be used by facilitators at various levels of the goat and pork value chains in Zimbabwe.



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Presentation Methodology

The methods of presentation outlined in the manual are suggested as a guide to the facilitator. The facilitator is expected to use his or her judgement in selecting the appropriate method or combination of methods in presenting each session.

05

Assessment

At the end of each session, the facilitator is expected to assess/evaluate the participants' understanding and level of knowledge by using a simple question and answer session as appropriate. In some of the sessions, assessment questions are suggested as activities whilst in some, the facilitator is given a free hand in determining the kind of questions to be asked. However, all assessments must relate to the session.

06

Financial Literacy

6.1 LEARNING OUTCOMES OF FINANCIAL LITERACY TRAINING

Learning Objectives

By the end of this module, farmers should be able to:

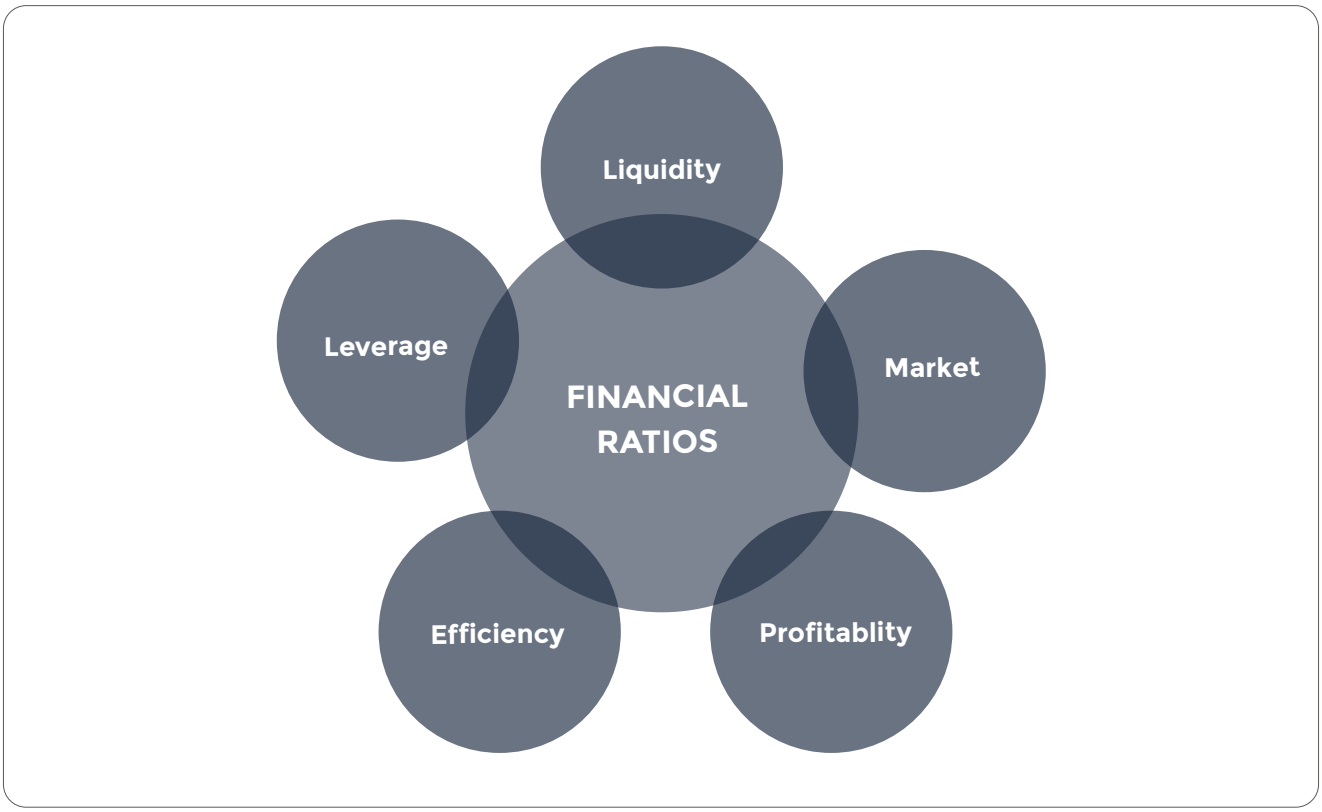
1. Understand and properly apply financial literacy skills.
2. Make sound financial decisions.
3. Prepare and keep financial records.
4. Properly manage debt, accurately calculate interest, and understand the time value of money.
5. Budget, track spending, effectively pay off debt.
6. Effectively manage risk.
7. Properly save and invest money.

6.2 INTRODUCTION TO FINANCIAL LITERACY

Financial literacy in the context of pig/goat production refers to possession of the set of skills and knowledge that allows farmers to make informed and effective decisions with all of their financial resources. Figure 6 1 shows the major components of financial literacy.

Financial literacy skills and knowledge include the ability by farmers to prepare financial plans, prepare and keep financial records, save and invest money, properly manage debt, manage risk, accurately calculate interest, and understanding the time value of money. Farmers with suitable financial literacy skills make better financial decisions and manage money better than those without the skills. Financial literacy helps farmers become self-sufficient so that they can achieve financial stability.

Figure 6 1: Components of financial literacy



6.3 ORGANISATION OF THE MODULE

The module is organised into five sections namely, basic financial and accounting terms, saving and investment, budgeting, risk management and sources of finance. These sections are presented next.

6.4 BASIC FINANCIAL AND ACCOUNTING TERMS

Learning Outcomes

By the end of this unit, farmers should be able to:

1. Explain the importance of keeping financial records.
2. Prepare financial records such as income statements, balance sheets and cashflow statements.

6.4.1 Definition

Accounting is the art of recording, classifying, and summarizing the business transactions in the books of accounts, as per prescribed rules, which have a financial impact (are financial). Furthermore, accounting involves the preparation of final accounts to calculate profit/loss and to show the financial position of the business at the end of the year. Once final accounts have been prepared, they should be interpreted for decision making.

6.4.2 Explanation of Definition

6.4.2.1 Recording

Recording means putting the business transactions which have a financial impact in writing in the books of accounts. Recording is done in books or journals. A journal is the first book of accounting and this book is further sub-divided into various subsidiary books such as cash journal, purchases journal, sales journal, etc. Transactions will be recorded in detail in the journals, i.e., date, amount, debit (Dr) and credit (Cr), etc.

6.4.2.2 Classifying

Classification is the process of grouping of transactions or entries of one nature in one place. The work of classification is done in the book termed as Ledger. A ledger (T Account) is prepared from a journal or available data/information.

6.4.3 Terminology

6.4.3.1 Business Transaction

Refers to a dealing of the business with other parties for sale or purchase of goods, payment of wages, rent and rendering of services, etc.

6.4.3.2 Purchases

Refers to buying of goods and services for the business and has two types.

i. Cash purchase - Goods bought and cash is paid on the spot/occasion.
ii. Credit purchase - Goods bought but cash will be paid after a few days, etc. (Creditors).

6.4.3.3 Return outwards/Purchases Return

If goods bought are returned due to any reason, it is called return outwards or purchase return.

6.4.3.4 Sales

Selling of goods & services by the business. It has also two types.

i. Cash sale - Goods sold and cash received on the spot.
ii. Credit sale - Goods sold but payment will be received after a few days/months (Debtors).

6.4.3.5 Return Inwards /Sales Return

If goods sold are returned to us due to any reasons, it is called return inwards or sales return. For example, a farmer sells a doe/buck and the doe/buck is latter returned because it was of a wrong breed.

6.4.3.6 Asset

Resources of the business with the help of which business is carried out. Examples are breeding stock, cash, machinery, furniture, office equipment, vehicle, land/building, debtors, stock, etc. Assets have two types:

i. Fixed assets: Those assets which have a long life and are purchased for the purpose to use them in business. Examples are breeding stock, machinery, furniture, office equipment, vehicle, lands/building, etc.
ii. Those assets which are purchased for sale to earn a profit or those assets in which frequent changes occurred due to business transaction. Examples are cash, debtors, stock (feed and drugs), etc.

Activity

List all the assets that you have which relate to the pig/goat production business

6.4.3.7 Liability

Obligations of the business such as creditors, bank-overdraft, loan, accrued salary, etc. Liability has two types:

i. Current liability: Those liabilities which are payable within a year. Examples are creditors, bank-overdraft, accrued salary, etc.
ii. Long term liability: those liabilities which are payable after a year. Examples are loans, debentures, etc.

6.4.3.8 Capital

Investments by the owner in the business. Examples are breeding stock, cash, furniture, computer, machinery, etc.

6.4.3.9 Income

Earning of the business. Examples are sales income, commission received, discount received.

6.4.3.10 Expense

Spending of the business. Examples are salary, wages, rent, utility bills, office expenses, advertisement, fuel, repairs, etc.

6.4.3.11 Drawings

If the owner of the business draws something from the business for personal use it is called drawing. Examples are:

- Cash withdrawn.
- Goods withdrawn for example consuming some of the goats/pigs.
- Personal bills paid out of the business cash.

6.4.3.12 Discount

Reduction in list price of the goods. It has two types.

1. Cash Discount: Allowed by shopkeepers to customers. It may be discount allowed (expense) and discount received (income).
2. Trade discount:
    - **Allowed by one trader to another trader on bulk buying.**
    - **It is not recorded in the books of accounts. It is only shown in invoices.**

6.4.3.13 Business

In the context of goat/pig farming, business refers to refers to the organized efforts and activities of farmers to produce and sell pigs/goats and related products for profit.

6.4.3.14 Enterprise

Refers to a for-profit business or company, but it is most often associated with entrepreneurial ventures.

6.4.3.15 Entrepreneur

Refers to a person who sets up a business or businesses such as goat/pig farming, taking on financial risks in the hope of profit.

6.4.3.16 Entrepreneurship

Refers to setting up a business or businesses such as goat/pig farming, taking on financial risks in the hope of profit.

6.4.3.17 Shares

Means one of the equal parts into which a company's capital is divided, entitling the holder to a proportion of the profits.

6.4.3.18 Dividend

Refers to a sum of money paid regularly (typically annually) by a company to its shareholders (owners) out of its profits.

6.4.3.19 Profit

- Means a financial gain or benefit, especially the difference between the amount earned and the amount spent in buying, operating, or producing something.
- In the case of goat/pig farming business, profit refers to the difference between the revenue earned from selling goats/pigs and the expenses incurred in producing the goats/pigs.

6.4.3.20 Profit Margin

- Refers to the amount by which revenue from sales exceeds costs in a business. More will be discussed on this topic in subsequent sections.
- Means amount of money lost by a business and this happens when the difference between the amount earned and the amount spent in buying, operating, or producing something is negative.
- In the case of goat/pig farming business, a loss occurs if the difference between the revenue earned from selling goats/pigs and the expenses incurred in producing the goats/pigs is negative or less than 0.

6.4.3.21 Loss

- Means amount of money lost by a business and this happens when the difference between the amount earned and the amount spent in buying, operating, or producing something is negative.
- In the case of goat/pig farming business, a loss occurs if the difference between the revenue earned from selling goats/pigs and the expenses incurred in producing the goats/pigs is negative or less than 0.

6.4.3.22 Equity

- Refers to the monetary value of shares issued by a company.

6.4.3.23 Investment

- Refers to an action or process of committing resources, usually money, with the expectation of generating an income or profit.
- In this instance, a farmer commits money into pig or goat production with the expectation of generating profit.

6.4.3.24 Saving

- Refers to income earned but not spent. After getting profit from goat/pig farming, farmer might set aside some of the income for future investment in order to expand their business.

6.4.3.25 Risk

- Refers to the possibility of something bad happening and this might include death of goats/pigs due to natural disasters such as floods or fire.

6.4.3.26 Risk Management

- Refers to the practice of identifying potential risks (dangers) in advance, analysing them and taking precautionary steps to reduce/curb the dangers.

6.4.3.27 Insurance

- Refers to a protection from a financial loss which is presented by a policy, in which an individual or entity receives reimbursement against losses from an insurance company.

6.4.4 Importance of Keeping Financial Records

- Famers should view pig/goat production as commercial business ventures.
- As such, farmers are highly encouraged to keep financial records for their business ventures.
- These records should be accurate, reliable and easy to follow.
- In this multi-currency and inflationary era in Zimbabwe, it is challenging to maintain proper records because, for instance, inputs (feeds, drugs, etc) are bought in different currencies while the products are sold in different currencies.
- To make it even worse, some farmers are using barter trade.
- Farmers are therefore advised to adopt one stable currency and use it in record keeping.

Proper business record keeping is important because of the following reasons:

1. Records assist farmers to know how much money was received and spent and how was it spent in any given period. This helps the farmer to:
   a) Measure the business performance against the projections in the business plan.
   b) establish how their business is performing over time by comparing one year's records with the next.
   c) Establish how their business is performing against competitors.
2. Records help farmers to determine whether or not their business is profitable.
3. Records will provide farmers with the information required for financial planning and budgeting and help farmers make decisions that will improve their income.
4. Assists farmers in preparing financial statements quickly and accurately.
5. Makes it easier to secure loans from financial institutions or open bank accounts because most financial institutions would want to see the financial performance of your business venture.
6. It helps farmers to manage their accounts, interests, taxes and working costs effectively.
7. Makes it easier to distribute profits to shareholders as dividends or for partnerships where both profits and losses have to be shared.
8. Helps in detecting thefts within the business itself.

6.4.5 Basic Financial Records

- Financial records are records about business transactions or activities of a monetary nature.
- Farmers are encouraged to maintain some basic stationery for keeping accounts.
- It is advisable to maintain computerised records if resources are available.
- Farmers can use accounting software (Wave, ZipBooks, SlickPie, GnuCash, CloudBooks, TurboCASH, QuickBooks, xTuple PostBooks), computers or smartphones with applications like spreadsheets if they have resources.
- If farmers do not have resources, they can use simple books or counter-books.
- Some of the basic records that goat/pig farmers should keep at the farm are explained below.

6.4.5.1 Production/Activity Record

- Farmers need to keep detailed records of their goats and pigs. Some of the important items to keep track of about each animal include:
  - Date of birth
  - Sex
  - Breed
  - Parents (Bow and Sow name for pigs or Buck and Doe name for goats)

Below is an example of a production record

Animal ID/ Tag Number	Animal Name	Sex	Breed	Bow/Buck Name	Sow/Doe Name
Pig32	Bonus	M	Large white	Pig11	Pig06

6.4.5.2 Asset Register

- Records the items that the farmers owns.
- These include vehicles, stockfeeds, computers, etc.
- For each item, the farmer should record:
  - The date of acquisition,
  - description,
  - Condition (working/not working),
  - Quantity,
  - Amount/value if known.

Below is an example of an Asset Register

Asset Number	Date of acquisition	Description	Condition	Quantity	Value
EA001	12-10-2001	Teeth clippers/grinders	Working	1	Not known

6.4.5.3 Stock Card

The farmer should acquire a stock card from the Division of Veterinary Services where the stock is entered.

6.4.5.4 General Expenditure Record

- Records the goat/pig related general expenditure or items that the farmer would have bought or purchased.
- For each goat/pig related general expense, the farmer should record:
  - The date,
  - Description of the expense,
  - Amount.

Date	Description	Amount
01-08-2020	Paid insurance for pigs/goats	20.00
01-10-2020	Bought drinkers	50.00

6.4.5.5 Purchases Record

- Records the goat/pig related purchases or items that the farmer would have bought or purchased.
- For each goat/pig related purchase, the farmer should record:
  - The date,
  - Description of the purchase,
  - Amount.

An example of how the purchases should be recorded is given below

Date	Description	Amount
01-08-2020	Bought 5 x 50kgs bags of goat supplementary feed each bag going for USD$ 20.00	100.00
01-10-2020	Bought pig drugs for USD$ 36.00	36.00

6.4.5.6 Sales Record

- Records the goat/pig sales.
- For each goat/pig sale, the farmer should record:
  - **The date,**
  - **Description of the sale,**
  - **Amount.**

An example of how the sales should be recorded is given below

Date	Description	Amount
10-10-2020	Sold 4goats each at USD$ 20.00	80.00
11-20-2020	Sold 3 pigs each at USD$ 360.00	1080.00

6.4.6 TYPES OF ACCOUNTS

There are five types of accounts and associated sub-accounts under each which are shown in Figure 6.2

Asset

- Cash, furniture, land,vehicles, machinery, debtors, stock.

Liability

- Creditors, bank overdraft, loan, accrued salary, rent payable.

Capital Investment

- Investment.

Income

- Sales, commission, received, discount received.

Expense

- Salary, rent, utility bills,insurance, advertising.

Figure 6.2: Types of Accounts

6.4.7 Rules of debit (Dr) and Credit (Cr)

When a financial transaction occurs, it increases or decreases the value of any of the above five accounts. The rules governing whether the value of an account should increase or decrease are given in the table below. If assets or expenses increase, the asset or expense account should be debited (Dr) otherwise it should be credited (Cr). If capital/liabilities/income increases, the appropriate capital/liabilities/income account should be credited otherwise it should be debited.

Assets/Expenses	Increase	Dr
	Decrease	Cr
Capital/Liability/ Income	Increase	Dr
	Decrease	Cr

Note: Normally expenses are debited and income is credited.

6.4.7.1 How to apply the rules of Dr and Cr.

i. Look at the transaction and trace two or more accounts (A/C) in that transaction.
ii. What is the type of these accounts?
iii. Apply the rules of Dr and Cr and entry should be completed.

6.4.8 Double-entry system of accounting

Is a system in which debit must have credit for an equal amount. Each transaction is recorded twice once as a credit and once as a debit. The golden rules to be followed when recording transactions are shown in Figure 6.3.

Real Account	Personal Account	Normal Account
• Pertains to assets and liabilities. • Golden Rule: Debit what comes into the business, and credit what goes out.	• Includes all accounts related to individuals, firms, and associations. • Golden Rule: Debit the receiver, and credit the giver.	• Related to all income, expenses, losses and profits. • Golden Rule: Debit the expense or loss, and credit the income or profit.

Figure 6.3: Golden Rules for Recording Transactions

6.4.9 Accounting Cycle

To avoid confusion, we shall skip some steps in the accounting cycle. We will record transactions in a simple table before we post them to ledgers then we balance off accounts and prepare a trial balance before preparing final accounts such as the income statement (profit or loss account), and balance sheet.

6.4.9.1 Ledger

- It is the second book of accounting and the first is a journal and in this manual, we have deliberately chosen to ignore journals.
- It is prepared from a journal or it can also be prepared directly from transactions or data given. It is also called – T- Form of Accounts
- In the ledger, a record relating to a particular account is maintained in a classified form OR Account wise record is kept.
- The format of a ledger is given in Figure 6.4.

Dr		Cash Account			Cr
Date	Description	Amount ($)	Date	Description	Amount ($)

Figure 6.4: Format of a Ledger or T A/C

6.4.9.2 General Ledger Accounts

Accounts used to sort and store transactions are found in the company's general ledger. The general ledgeWr is often arranged according to the seven classifications in Table 6 1 alongside a few examples of the related account titles.

Table 6.1: General ledger accounts

Account	Examples
Assets	Cash, Accounts Receivable, Land, Equipment
Liabilities	Loans Payable, Accounts Payable, Bonds Payable
Stockholders' equity	Common Stock, Retained Earnings
Operating revenues	Sales, Service Fees
Operating expenses	Salaries Expense, Rent Expense, Depreciation Expense
Non-operating revenues and gains	Investment Income, Gain on Disposal of Truck
Non-operating expenses and losses	Interest Expense, Loss on Disposal of Equipment

Table 6.2 shows some examples of ledger accounts and their functions.

Table 6.2: Functions of ledger accounts Example

Ledger	Function or Purpose
Sales	Records cash or credit sales e.g. sales of porkers
Purchases	Records goods purchased on cash or credit for resale e.g. weaners which are being grown for sale
Cash	Records cash receipts and payments
Sales Returns	Records all goods returned by customers e.g. wrong porkers sold
Purchases Returns	Records all goods you return to suppliers such as underweight weaners or ill weaners purchased
Capital account	Records starting capital for a business

Ledger	Function or Purpose
Loan Account	Records loans secured by the business
Interest Account	Records interests paid by the company
Land	Records the value of land
Equipment	Records value of equipment
Salaries	Records the salaries paid to the employees
Rent	Records rentals paid
Bills	Records electricity or water payments

Example

Bigman Limited is a business venture which specialises in buying and selling pigs/goats. More specifically, Bigman buys young pigs/goats and grows them before selling. During January in 2020, Bigman performed the transactions which are presented in Table 1 3. This table shows one way of recording business transactions. As a farmer, you can buy an exercise book or even counter book and then record your transactions as shown in the table. You can also use a computer or smart phone together with spreadsheet applications. Make sure the date, amount and transaction details are correct. It is also important to record transactions that are related to the pig/goat farming project separate from other farming activities that are not related to the pig/goat farming project.

Table 6.3: Business transactions performed by Bigman

(01/2020)	Transaction
1	Bigman started a pig/goat farming project on January 1, 2020, with $6000.00 cash
3	Bigman purchased $2600 of piglets/kids for cash
4	Bigman purchased feeding and drinking equipment for $800 cash
5	Bigman purchased $3000 worth of piglets/kids on credit
6	Bigman bought a motor cycle for $500 paid through a bank transfer
8	Bigman borrowed $700 cash from the bank to be repaid after 5 years
9	Bigman pays rent of $500 by cash
10	Bigman paid electricity bills amounting to $240 by Date cash
11	Bigman paid general expenses of $240 by cash
19	Bigman sold porkers for $4000 for cash, the cost of these porkers was $2400

(01/2020)	Transaction
20	Bigman sold porkers/kapaters for $3800 on credit, the cost of these porkers/kapaters was $2400
21	Bigman withdraws $1000 in cash from the company
24	Bigman paid $2000 to trade creditors through a bank transfer
25	Bigman received $2500 cash from debtors
27	Bigman paid wages and salaries of $200 through a bank transfer
28	Bigman returned piglets/kids worth $50 which were originally bought on credit
28	Bad debts amounting to $20 were written off
29	Our customers returned porkers/kapaters worth $40 which were originally sold on credit

From the transactions in Table 6 .3 we are required to:

1. Record the above transactions in the ledger of Bigman.
2. Balance off the accounts and extract the trial balance as at 31 January 2020.
3. Prepare the income statement for the period ending 31 January 2020.
4. Prepare the balance sheet as at 31 January 2020.

Answer 1

Bigman's ledger accounts

Before we record the transactions in the ledger, we shall just indicate next to each transaction as shown in Table 6.4 which two accounts are involved for each transaction and which account should be debited and which one should be credited.

Table 6.4: Account to be debited or credited

Date (01/2020)	Transaction	DR/CR
1	Bigman started a pig/goat farming project on January 1, 2020, with $6000.00 cash	Debit the cash account and credit the capita account
3	Bigman purchased $2600 of piglets/ kids for cash	Debit purchases account and credit cash account
4	Bigman purchased feeding and drinking equipment for $800 cash	Debit equipment account and credit cash account

Date (01/2020)	Transaction	DR/CR
5	Bigman purchased $3000 worth of piglets/kids on credit	Debit purchases account and credit creditors
6	Bigman bought a motor cycle for $500 paid through a bank transfer	Debit motor cycle account and credit bank account
8	Bigman borrowed $700 cash from the bank to be repaid after 5 years	Debit cash account and credit cash loan account
9	Bigman pays rent of $500 by cash	Debit rent account and credit cash
10	Bigman paid electricity bills amounting to $240 by cash	Debit electricity account and credit cash account
11	Bigman paid general expenses of $240 by cash	Debit expenses account and credit cash account
19	Bigman sold porkers for $4000 for cash, the cost of these porkers was $2400	Debit purchases account and credit cash account then debit the cost of sales account and credit purchases account
20	Bigman sold porkers/kapaters for $3800 on credit, the cost of these porkers/kapaters was $2400	Debit debtors account and credit sales account then debit the cost of sales account and credit purchases account
21	Bigman withdraws $1000 in cash from the company	Debit drawings account and credit cash account
24	Bigman paid $2000 to trade creditors through a bank transfer	Debit creditors account and credit bank account
25	Bigman received $2500 cash from debtors	Debit cash account and credit debtors account
27	Bigman paid wages and salaries of $200 through a bank transfer	Debit salaries account and credit bank account
28	Bigman returned piglets/kids worth $50 which were originally bought on credit	Debit purchases returns account and credit purchases account
28	Bad debts amounting to $20 were written off	Debit bad debts account and profit and loss account
29	Our customers returned porkers/ kapaters worth $40 which were originally sold on credit	Debit sales account and credit sales returns account

Bigman's Ledger

DR	Capital Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/01	Bal C/D	6000	2020/01/01	Cash	6000
			2020/01/01	Bal B/F	6000

DR	Purchases Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/03	Cash	2600	2020/01/19	Cost of Sales	2400
2020/01/05	Trade Creditors	3000	2020/01/20	Cost of Sales	2400
			2020/01/31	Bal C/D	800
			5600		
2020/02/01	Bal B/F	800			

DR	Trade Creditors Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/24	Bank Purchases Returns	2000	2020/01/05	Purchases	3000
2020/01/28	Bal C/D	50			
2020/01/31		950			3000
		3000			
			2020/02/01	Bal B/F	950

DR	Bank Loan Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/31	Bal C/D	700	2020/01/08	Cash	700
			2020/02/01	Bal B/F	700

DR	Electricity Bills Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/10	Cash	240	2020/01/31	Bal C/D	240
2020/02/01	Bal B/F	240			

DR	Cost of sales Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/19	Purchases	2400			
2020/01/20	Purchases	2400			
		4800	2020/01/31	Bal C/D	4800
2020/02/01	Bal B/F	4800			

DR	Trade Debtors Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/20	Sales	3800	2020/01/25	Cash	2500
			2020/01/28	bad Debts	20
			2020/01/29	Sales Returns	40
			2020/01/31	Bal C/D	1240
		3800			3800
2020/02/01	Bal B/F	1240			

DR	Wages and Salaries Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/27	Bank	200	2020/01/31	Bal C/D	200
2020/02/01	Bal B/F	200			

DR	Purchases Returns Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/31	Bal C/D	50	2020/01/28	Trade Creditors	50
			2020/02/01	Bal B/F	50

DR	Cash and Bank Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/01	Capital	6000	2020/01/03	Purchases	2600
2020/01/08	Bank Loan	700	2020/01/04	Equipment	800
2020/01/19	Sales	4000	2020/01/06	Motor Vehicle	500
2020/01/25	Trade Debtors	2500	2020/01/09	Rent	500
			2020/01/10	ZESA Bills	240

DR	Cash and Bank Account				CR
			2020/01/11	General Expenses	240
			2020/01/21	Drawings	1000
			2020/01/24	Trade Creditors	2000
			2020/01/27	Wages and Salaries	200
			2020/01/31	Bal C/D	5120
		13200			13200
2020/02/01	Bal B/F	5120			

DR	Equipment Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/01	Cash	800	2020/01/31	Bal C/D	800
2020/02/01	Bal B/F	800			

DR	Motor Vehicles Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/06	Bank	500	2020/01/31	Bal C/D	500
2020/02/01	Bal B/F	500			

DR	Motor Vehicles Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/06	Bank	500	2020/01/31	Bal C/D	500
2020/02/01	Bal B/F	500			

DR	Rent Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/09	Cash	500	2020/01/31	Bal C/D	500
2020/02/01	Bal B/F	500			

DR	General Expenses Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/11	Cash	240	2020/01/31	Bal C/D	240
2020/02/01	Bal B/F	240			

DR	Sales Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
			2020/01/19	Cash	4000
			2020/01/20	Trade Debtors	3800
2020/01/31	Bal C/D	7800			7800
			2020/02/01	Bal B/F	7800

DR	Drawings Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/21	Cash	1000	2020/01/31	Bal C/D	1000
2020/02/01	Bal B/F	1000			

DR	Sales Returns Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/29	Trade Debtors	40	2020/01/31	Bal C/D	40
2020/02/01	Bal B/F	40			

DR	Bad Debts Account				CR
Date	**Description**	**Amount**	**Date**	**Description**	**Amount**
2020/01/28	Trade Debtors	20	2020/01/31	Bal C/D	20
2020/02/01	Bal B/F	20			

In the ledger presented above, In the ledger presented above, the ledger accounts have already been balanced off. But how do we balance off accounts? We will illustrate using the Cash and Bank Account as in Figure 6.5. far are arithmetically accurate.

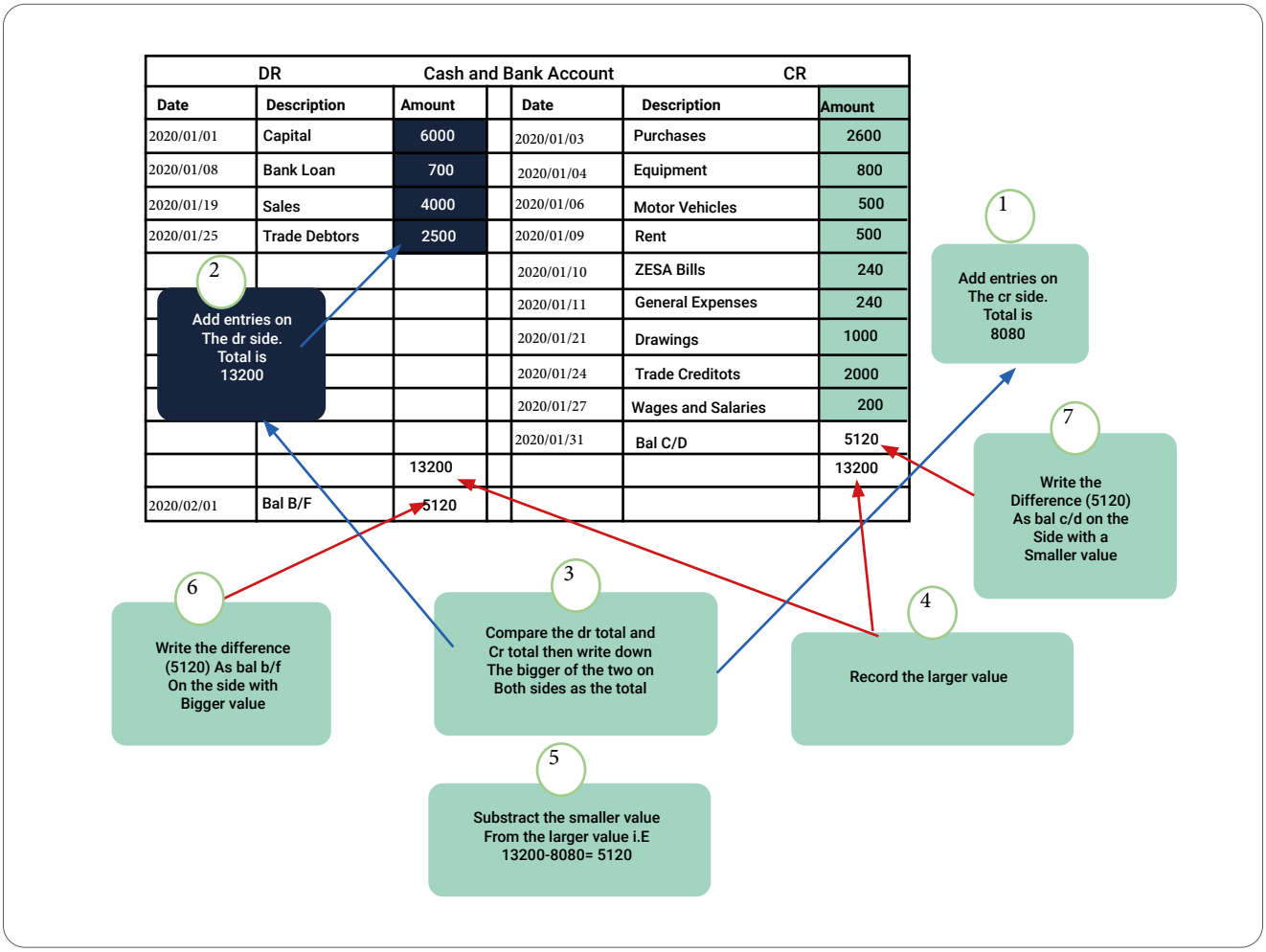


Figure 6.5: Balancing off accounts

6.4.9.3 Trial Balance

- It is a statement that is prepared from Ledger by taking out Debit and Credit balances from different accounts appearing in the ledger.
- If the Dr and Cr sides are equal in trial balance it means that accounting records prepared/ maintained so far are arithmetically accurate.
- From a trial balance, we prepare final accounts at the end of year i.e. Trading and profit and loss a/c and Balance sheet.

So, extracting the balances from the ledger accounts about would give a trial balance in Table 6.5.

Table 6.5: Bigman's Trial Balance as at 31-01-2020

Account Title	Debit	Credit
Capital		6000
Cash and Bank	5120	
Purchases	800	
Equipment	800	
Trade Creditors		950
Motor Vehicles	500	
Bank Loan		700
Rent	500	
Electricity Bills	240	
General Expenses	240	
Cost of Sales	4800	
Sales		7800
Trade Debtors	1240	
Drawings	1000	
Wages and Salaries	200	
Sales Returns	40	
Purchases Returns		50
Bad Debts	20	
Totals	15500	15500

6.4.9.4 Final Accounts

Finals accounts include the following.

- Trading and profit and loss account.
- Balance sheet.

6.4.9.4.1 Trading and Profit & Loss A/C

- It shows the gross profit or gross loss and net profit or net loss of the business at the end of the year respectively.
- In T and P and L a/c income and expenses are shown.

Table 6.6: Bigman Limited: Income Statement for the period ended 31/01/2020

Bigman Limited: Income Statement for the period ended 31/01/2020				
Revenue from sales:				
Sales			7800	
Less Sales Returns and Allowances		40		
Less Sales Discounts		0	40	
Net Sales				7760
Cost of Goods Sold:				
Opening Stock			0	
Purchases		5600		
Less Purchases Returns and Allowances	50			
Less Purchases Discounts	0	50		
		5550		
Add: Carriage Inwards		0		
Net Purchases			5550	
Goods Available for Sale			5550	
Less closing stock			800	
Cost of Goods Sold				4750
Gross profit				3010
Operating Expenses:				
Selling expenses				
Sales Salaries		200		
Advertising Expense		0		
Store Supplies Expense		0		
Depreciation Expense -Store Equipment		0		
Sundry Selling Expense		0		
Total Selling Expenses			200	
General Expenses:				
Rent expense		500		
Office Salaries Expense		0		

Bigman Limited: Income Statement for the period ended 31/01/2020				
Insurance Expense		0		
Depreciation Expense -Office Equipment		0		
Bad Debts		20		
Utilities Expense		240		
Office Supplies Expense		0		
Sundry General Expense		240		
Total General Expenses			1000	
Total Operating Expenses				1200

6.4.9.4.2 Balance sheet

- It shows the financial position of the business on a particular date.
- Assets, liabilities & capital are shown in the balance sheet.

Bigman Limited's Balance Sheet as at 31/01/2020

Fixed assets:	At cost	Account depreciation	Net book value
Land and Buildings	0	0	0
Motor Vehicles	xx	0	500
Fixtures and Fittings	0	0	0
Equipment	xx	0	800
Total Fixed Assets			1300
Current Assets:			
Cash and Bank		5120	
Accounts receivable /Trade debtors	1240		
Closing Stock		800	
Store Supplies		0	
Office Supplies		0	
Prepayments		0	
Total Current Assets			7160
Total Assets			8460

Fixed assets:	At cost	Account depreciation	Net book value
Liabilities:			
Current Liabilities:			
Accounts Payable		950	
Salaries Payable		0	
Bank Overdraft		0	
Total Current Liabilities			950
Long-Term Liabilities			
Notes Payable		0	
Bank Loan		700	
Mortgages		0	
Debenture Loan		0	
Total Long-Term Liabilities			700
Total Liabilities			1650
Financed By:			
Capital		6000	
Less Drawings		1000	
		5000	
Add profit		1810	6810
Total Liabilities and Owner's Equity			8460

6.4.10 Financial Ratios

Financial ratios metrics are used to measure the efficiency and profitability of a business based on its financial reports such as the income statement, the balance sheet, and the cash flow statement.

6.4.10.1 Types of Financial Ratios

Figure 6 shows the categories of financial ratios and each category and subcategories of ratios are explained afterwards.

Figure 6: Financial Ratios

6.4.10.2 Uses Financial Ratio Analysis

Analysis of financial ratios serves two main purposes:

i. Track company performance
   - **Determining individual financial ratios per period and tracking the change in their values over time is done to spot trends that may be developing in a company.**
   - **For example, an increasing debt-to-asset ratio may indicate that a company is overburdened with debt and may eventually be facing default risk.**

ii. Make comparative judgments regarding company performance
   - **Comparing financial ratios with that of major competitors is done to identify whether a company is performing better or worse than the industry average.**
   - **For example, comparing the return on assets between companies helps an analyst or investor to determine which company is making the most efficient use of its assets.**

6.4.10.3 Users Financial Ratio Analysis

Users of financial ratios include parties external and internal to the company:

- External users: Financial analysts, retail investors, creditors, competitors, tax authorities, regulatory authorities, and industry observers
- Internal users: Management team, employees, and owners.

6.4.10.3.1 Liquidity Ratios

Liquidity ratios are financial ratios that measure a company's ability to repay both short- and long-term obligations. Common liquidity ratios include the following:

6.4.10.3.1.1 The current ratio

The Current Ratio formula is = Current Assets / Current Liabilities.

- The current ratio, also known as the working capital ratio, measures the capability of a business to meet its short-term obligations that are due within a year.
- The ratio considers the weight of total current assets versus total current liabilities.
- It indicates the financial health of a company measures a company's ability to pay off short-term liabilities with current assets:

Current ratio =	**Current assets / Current liabilities**

6.4.10.3.1.4 The Operating cash flow ratio

- The Operating Cash Flow Ratio is a measure of how well a company can pay off its current liabilities with the cash flow generated from its core business operations.
- This financial metric shows how much a company earns from its operating activities, per dollar of current liabilities is a measure of the number of times a company can pay off current liabilities with the cash generated in a given period.

Operating cash flow ratio =	**Operating cash flow / Current liabilities**

6.4.10.3.2 Leverage Financial Ratios

- Leverage ratio indicates the level of debt incurred by a business entity against several other accounts in its balance sheet, income statement, or cash flow statement.
- Excel template measure the amount of capital that comes from debt. In other words, leverage financial ratios are used to evaluate a company's debt levels.
- **Common leverage ratios include the following:**

6.4.10.3.2.1 The Debt Ratio

The debt to asset ratio, also known as the debt ratio, is a leverage ratio that indicates the percentage of assets that are being financed with debt. The ratio measures the relative amount of a company's assets that are provided from debt:

Debt ratio =	**Total liabilities / Total assets**

6.4.10.3.2.2 The debt to equity ratio

The debt to equity ratio calculates the weight of total debt and financial liabilities against shareholders' equity. The debt-to-equity ratio shows how much a business is leveraged; how much debt it is using to finance operations as opposed to its own internal funds.

Debt to equity ratio =	**Total liabilities / Shareholder's equity**

6.4.10.3.2.3 The interest coverage ratio

Interest Coverage Ratio (ICR) is a financial ratio that is used to determine the ability of a company to pay the interest on its outstanding debt. Shows how easily a company can pay its interest expenses:

Interest coverage ratio =	**Operating income / Interest expenses**

6.4.10.3.2.4 Debt service coverage ratio

The debt service coverage ratio reveals how easily a company can pay its debt obligations:

Debt service coverage ratio =	**Operating income / Total debt service**

6.4.10.3.3 Efficiency Ratios

Efficiency ratios, also known as activity financial ratios, are used to measure how well a company is utilizing its assets and resources. Common efficiency ratios include:

6.4.10.3.3.1 The asset turnover ratio

- Asset turnover is a ratio that measures the value of revenue generated by a business relative to its average total assets for a given fiscal or calendar year.
- It is an indicator of how efficient the company is using both the current and fixed assets to produce revenue. measures a company's ability to generate sales from assets:

Asset turnover ratio =	**Net sales / Average total assets**

6.4.10.3.3.2 The inventory turnover ratio

- Inventory turnover, or the inventory turnover ratio, is the number of times a business sells and replaces its stock of goods during a given period.
- It considers the cost of goods sold, relative to its average inventory for a year or in any a set period of time.
- Measures how many times a company's inventory is sold and replaced over a given period:

Inventory turnover ratio =	**Cost of goods sold / Average inventory**

6.4.10.3.3.3 Receivables turnover ratio

- The accounts receivable turnover ratio measures how many times a company can turn receivables into cash over a given period:

Receivables turnover ratio =	**Net credit sales / Average accounts receivable**

6.4.10.3.3.4 The days sales in inventory ratio

- Days Sales in Inventory (DSI), sometimes known as inventory days or days in inventory, is a measurement of the average number of days or time measures the average number of days that a company holds on to inventory before selling it to customers:

Days sales in inventory ratio =	**365 days / Inventory turnover ratio**

6.4.10.3.4 Profitability Ratios

- Profitability ratios are financial metrics used by analysts and investors to measure and evaluate the ability of a company to generate income (profit) relative to revenue, balance sheet assets, operating costs, and shareholders' equity during a specific period of time.
- They show how well a company utilizes its assets to produce profit. It measures a company's ability to generate income relative to revenue, balance sheet assets, operating costs, and equity.
- Common profitability financial ratios include the following:

6.4.10.3.4.1 The gross margin ratio

- The Gross Margin Ratio, also known as the gross profit margin ratio, is a profitability ratio that compares the gross profit of a company to its revenue/net sales.
- The higher the gross profit margin, the better, as it indicates that a company is keeping a higher proportion of revenues as profit rather than expenses:

Gross margin ratio =	**Gross profit / Net sales**

6.4.10.3.4.2 The operating margin ratio

- Operating Profit Margin is a profitability or performance ratio that reflects the percentage of profit a company produces from its operations, prior to subtracting taxes and interest charges.

- It is calculated by dividing the operating profit by total revenue and expressing as a percentage.
- Compares the operating income of a company to its net sales to determine operating efficiency:

Operating margin ratio =	**Operating income / Net sales**

6.4.10.3.4.3 The return on assets ratio

- Return on Assets (ROA) is a type of return on investment (ROI) metric that measures the profitability of a business in relation to its total assets.
- This ratio indicates how well a company is performing by comparing the profit (net income) it's generating to the capital it's invested in assets. It measures how efficiently a company is using its assets to generate profit:

Return on assets ratio =	**Net income / Total assets**

6.4.10.3.4.4 The return on equity ratio

- Return on Equity (ROE) is a measure of a company's profitability that takes a company's annual return (net income) divided by the value of its total shareholders' equity (i.e. 12%).
- ROE combines the income statement and the balance sheet as the net income or profit is compared to the shareholders' equity.
- Measures how efficiently a company is using its equity to generate profit:

Return on equity ratio =	**Net income / Shareholder's equity**

6.4.10.3.5 Market Value Ratios

- Market value ratios are used to evaluate the share price of a company's stock. Common market value ratios include the following:

6.4.10.3.5.1 The book value per share ratio

- The book value per share ratio calculates the per-share value of a company based on the equity available to shareholders:

Book value per share ratio =	**(Shareholder's equity – Preferred equity) / Total common shares outstanding**

6.4.10.3.5.2 The dividend yield ratio

- The dividend yield ratio measures the amount of dividends attributed to shareholders relative to the market value per share.
- The higher the dividend payout ratio the higher percentage of income a company pays out as dividends as opposed to reinvesting back into the company.

Dividend yield ratio =	**Dividend per share / Share price**

6.4.10.3.5.3 Earnings per share ratio

- The earnings per share ratio measures the amount of net income earned for each share outstanding:

Earnings per share ratio =	**Net earnings / Total shares outstanding**

6.4.10.3.5.4 The price-earnings ratio

- The Price Earnings Ratio (P/E Ratio) is the relationship between a company's stock price and earnings per share.
- It gives investors a better sense of the value of a company.
- The P/E shows the expectations of the market and is the price you must pay per unit of current (or future) earnings compares a company's share price to its earnings per share:

Price-earnings ratio =	**Share price / Earnings per share**

Savings refers to money left over after income is spent on consumption of goods and services whereas investment refers to money spent on goods and services that are not 'consumed', but are durable. It should be noted that savings can be used to increase income through investing. Concerning pig/goat production when farmers realise income through selling pigs/goats, they are encouraged to save or invest some of their proceeds. Some of the reasons why farmers are encouraged to save money are given below.

6.5 SAVING AND INVESTMENT

Learning Outcomes

By the end of this unit, farmers should be able to:

1. Explain the importance of saving money.
2. Describe how to save money.
3. Save money.

Savings refers to money left over after income is spent on consumption of goods and services whereas investment refers to money spent on goods and services that are not 'consumed', but are durable. It should be noted that savings can be used to increase income through investing. Concerning pig/goat production when farmers realise income through selling pigs/goats, they are encouraged to save or invest some of their proceeds. Some of the reasons why farmers are encouraged to save money are given below.

6.5.1 Importance of saving money

1 Saving money helps to protect farmers in case of a financial emergency. Some of these emergencies might include buying feed if some of the feed is stolen or destroyed by fire.
2 Saving money can help farmers pay for large purchases such as drinking systems, construction of pens, feeding systems, constructing an abattoir, etc.
3 Saving money will help farmers avoid debt. Instead of securing a loan, a farmer can use savings thereby avoiding debt.
4 Saving money helps in reducing financial stress among farmers.
5 Saving money provides farmers with a greater sense of financial freedom.

5.1.1 How to save money

In economies where there is macro-economic stability, money can be saved through a savings vehicle which is a bank account used to hold your savings. The most common saving vehicles include savings accounts, money market accounts, and certificates of deposit. These are described next.

6.5.1.1 Savings Account

Savings accounts are the most basic kind of savings vehicle in Zimbabwe and they are offered by most financial institutions. Savings accounts give you limited access to your money than current accounts therefore you are less tempted to spend the money. At the moment is a challenge to invest with financial institutions in Zimbabwe due to macro-economic instability and monetary policy inconsistency. Therefore, farmers should look for other savings vehicles.

6.5.1.2 Money Market Account

This is a deposit account that is part current and part savings, meaning you can write checks from this account, but there are restrictions as well. These accounts may offer higher interest rates than savings accounts, but in exchange, they might require a high minimum balance. As in most cases, the bigger the balance, the bigger the interest rate. The money market in Zimbabwe is

not performing well ,hence, farmers should avoid this vehicle maybe until there is macro-economic stability.

6.5.1.3 Certificate of Deposit (CD)

Refers to a deposit that is held for a specific term, such as three months, six months, one year, or even longer. With CD, the bank pays interest to you on your deposit during the term of the CD. Just like most financial instruments in Zimbabwe, CDs are not performing well at the money due to macro-economic instability hence farmers are not recommended to invest in these instruments.

6.5.1.4 Community-based Savings Vehicles

Famers can save money with community-based groups such as Internal Savings and Lending (ISAL) and Village Savings and Lending (VSAL). Farmers need to be careful when investing in these vehicles so that the purchasing power of their money is not eroded. So, it is recommended that maybe farmers invest in a scheme that tracks inflation or in a scheme which uses a stable currency.

6.5.1.5 Other Savings Vehicles

- Farmers can also buy some assets which can be easily converted into cash using their savings. These assets include buying indigenous chickens, ducks, turkeys, goats, etc. In this current environment, if farmers buy these items, their money can retain its value. Furthermore, farmers can invest in fixed assets such as land or even expand their production capacities.
- The other investment vehicle that the farmers can exploit is the Warehouse Receipting System (WRS) which is to be launched soon under Ministry of Lands, Agriculture, Water and Rural Resettlement under the Warehouse Receipt Act (Chapter 18:25).
- WRS is a mechanism of creating and leveraging collateral security for the farmer enterprises.
- The Warehouse Receipt is a Negotiable Financial Instrument/Security.
- Through the WRS the farmers will be able to mark the prices of their produce to market through tracking demand and supply both on and off season.
- Under a WRS, a warehouse receipt (WR) is issued to a named depositor (who may be a farmer, farmer group, processor or trader) as evidence that he or she has deposited a specified commodity, of stated quantity and quality, at a specified location.
- The holder of the receipt may pledge it to a lender (with the stored commodity being the collateral for a loan) or transfer it to a buyer (by way of a sale).
- The warehouse operator or collateral manager, who has custody of the stocks, guarantees delivery against the receipt, and should be able to make good any value lost through theft, fire or other catastrophes.
- The key players in the WRS are depositors, the warehouse operator or collateral manager, and lenders.

i. Indicate how much money from your pig/goat production you are saving per month and per year.
ii. Which investment or savings vehicles are you using?
iii. What is the rate of return that you are getting from your savings vehicle per year?

6.6 SOURCES OF FINANCE

6.6.1 Introduction

- Pig/goat farmers require money to run their business ventures.
- This money is required to buy breeding stock, buy feeds, buy drugs, construct pens, pay salaries, pay utility bills, etc. before the business generates income.
- Farmers should, therefore, manage their financial resources judicially to guarantee business success and continuity.
- Farmers are advised to prepare a cashflow forecast which shows monthly expected income and expenditure.
- This will help the farmer to determine the amount of money needed to run a pig/goat production business.

6.6.2 Sources of Finance

- In most cases, pig/goat producers use personal resources to start their business ventures.
- However, these personal resources might not be adequate, hence the need to consider other sources of finance.
- The possible sources of finance available to goat/pig farmers are shown in Figure 6.7.

Sources of finance
Individual Financing
Bank loans
Contract Farming
NGOs and Relief Agencies
Group Lending
SACCOS
Government
Community Leading Groups

Figure 6 7: Sources of finance

6.6.2.1 Individual financing

- This is the most common source of finance in Zimbabwe in which farmers use personal resources to support pig/goat farming businesses.
- These funds may be invested in the business as equity.
- The advantages and disadvantages of this form of finance are presented in Table 6.8.

Table 6.8: Advantages and disadvantages of individual financing

Advantages	Disadvantages
Often predictable and reliable, therefore promotes timeliness of operations.	
	Normally not adequate support.
Commercial goat/pig production.	
The funds are easy to get since there are no stringent requirements associated with a loan application, preparing business proposals, and paying interest	It is a risky form of finance because if the goat/pig venture fails, the farmer loses their whole investment and may not be able to recover.

6.6.2.2 Personal friends and relatives

- Funds are mobilised from friends, relatives, or professional support networks and normally based on personal relationships hence no need for thorough vetting.
- The advantages and disadvantages of this form of finance are presented in Table 6 9.

Table 6.9: Advantages and disadvantages of personal friends and relatives

Advantages	Disadvantages
Often fast and reliable because vetting is not necessary.	The amounts of money are normally low than what the farmer might want.
No or low interest rate is charged	Personal relationships may be strained if money is not paid back on time

6.6.2.3 Individual bank loans

- Lending institutions are major source finance and most lending institutions in Zimbabwe are currently offering agricultural finance to farmers.
- These institutions include banks, building societies and micro-finance institutions.
- Some examples of these institutions include:
  Zimbabwe Women's Microfinance Bank, Small and Medium Enterprises Development Corporation (SMEDCO), Women Development Fund, Community Development Fund, Banks like AGRIBANK, CBZ, Steward Bank, etc.
  Under normal circumstances, banks can offer short-, medium-, or long-term loans, depending on the availability of money, availability of collateral, and creditworthiness of the borrower.
- The current situation in Zimbabwe is that lending institutions are only offering short-term loans of up to a year and some institutions are only lending to groups of farmers and not individuals.
- The fact that loans are short-term while some businesses like pig/goat production might require long-term loans, makes planning difficult as farmers are expected to pay back before the business has stabilised, or even generated income.
- The advantages and disadvantages of bank loans are given in Table 6 10.

Table 6.10: Advantages and disadvantages of bank loans

Advantages	Disadvantages
The amount of loan is based on the creditworthiness of the borrower.	Lending institutions normally charge high interest rates making it difficult for farmers to pay back the loan plus interest.
Loans can be processed and availed on time.	Most lending institutions require collateral which most farmers don't have.
Lending institutions can give farmers the best financial advice for free.	Most lending institutions do not give farmers technical business support.

6.6.2.4 Commercial lending to groups

- This is a form of finance only available to formal farmer groups (with a constitution and management committee).
- With some institutions, if one group member fails to pay back the loan, the whole group is held accountable.
- To ensure that farmers put the loans to good use, some institutions do not give farmers cash but pay suppliers directly for goods required by the farmers.
- The advantages and disadvantages of commercial lending to groups are given in Table 6.11.

Table 6.11: Advantages and disadvantages of commercial lending to groups

Advantages	Disadvantages
Usually, no collateral is required	Groups are often difficult to form and manage
Default risk is lower when dealing with groups as compared to dealing with individuals	Lenders are often not comfortable with lending to groups
Makes it possible and easy to provide cost-effective extension support to farmers	

6.6.2.5 Contract farming

- This is a form of finance in which private companies extend lines of credit to producers in the form of farming inputs and technical assistance.
- Contract farming involves contractors committing themselves to buy the entire product contracted out to farmers at an agreed price.
- On the other hand, producers provide labour and manage the contracted farming activity.
- In Zimbabwe, contract farming is common with tobacco and cotton farming.
- The advantages and disadvantages of contract farming are presented in Table 6.12

Table 6.12: Advantages and disadvantages of contract farming

Advantages	Disadvantages
The supplied inputs are used for the intended purpose	Farmers might be given inputs which are available but not necessarily the best
Farmers get technical support from the contractor	Farmers might get inadequate inputs which might affect production
Usually, no collateral is required	

6.6.2.6 NGOs and other relief organisations

- NGOs and other relief organisations provide support to farmers in the form of direct provision of inputs including breeding stock, matching grants, agro-dealer voucher schemes, livestock restocking, technical support and other related programmes.
- The advantages and disadvantages of NGOs and other relief organisations are presented in Table 6.13.

Table 6.13: Advantages and disadvantages of NGOs and other relief organisations

Advantages	Disadvantages
Resources are allocated in a transparent manner	Coverage is usually limited to certain districts or wards
Inputs are distributed on time	Not ideal for commercial faring
	Sometimes the quality of inputs is poor
	NGOs and Donors come and go and they should not be relied on

6.6.2.7 Government Support

- Farmers sometimes get agricultural inputs from the government.
- In Zimbabwe, we have schemes like command agriculture and government support being given through lending institutions and well as extensions services.
- The advantages and disadvantages of Government Support are shown in Table 6.14.

Table 6.14: Advantages and disadvantages of Government Support

Advantages	Disadvantages
Usually accessible to farmers when available	Inputs normally are distributed late which might hamper production
Usually, no or low interest is charged	Programmes are usually under-funded

6.6.2.8 Community-Based Cooperatives or groups

- Cooperatives or Internal Savings and Lending (ISAL) groups or Village Savings and Lending Associations are often groups of members who meet regularly to save together and take small loans from those savings.
- The purpose of a VSLA/ISAL is to provide simple savings and loan facilities in a community that does not have easy access to formal financial services.
- The advantages and disadvantages of community-based cooperatives or groups are in Table 6.15.

Table 6.15: Advantages and disadvantages of community-based cooperatives or groups

Advantages	Disadvantages
The criterion for selecting members is not very strict	Normally poorly funded hence farmers might not be able to get much money
Lower than market rate interests are charged	Poor administration which usually results in viability problems
Flexible payment terms	

6.6.2.9 Savings and Credit Cooperative Society (SACCOS)

- Savings and Credit Cooperatives are bodies created by a group of people with a common interest (farmers, churches, workers' unions, community groups etc.),
- The objective is to save collectively, then make loans available to the group's members and make guarantees or other financial instruments that will enable members to access capital.

Table 6.16: Advantages and disadvantages of SACCOS

Advantages	Disadvantages
The criterion for selecting members is not very strict	Normally poorly funded hence farmers might not be able to get much money
Lower than market rate interests are charged	Poor administration which usually results in viability problems
Flexible payment terms	

6.6.2.10 Leasing

- Leasing is a form of rental and the leased assets include land, pens, cars, computers and office equipment.
- A lease is an agreement between two parties, the "lessor" and the "lessee" in which the lessor owns a capital asset, but allows the lessee to use it.
- The lessee makes payments under the terms of the lease to the lessor, for a specified period of time.
- Pig/goat farmers without land or pens can lease for a period of time if they do not have money to construct their pens.

Advantages	Disadvantages
A cheaper and faster way of starting a business or having an asset	The lease agreement might expire before a farmer is established
Lease fees are normally reasonable	

Activity

Assuming that you want to borrow money to buy 10 bags of feed payable in 2 months, which are the possible sources of finance that you should consider and why?

6.6.3 Factors to consider when choosing a source of finance

Farmers need to consider the factors given below before choosing a source of finance. Farmers should know when to use which source of finance otherwise they end up in financial difficulties if they do not choose sources wisely.

i. The amount required determines the most approach source of finance because some sources are more suitable when a farmer wants large amounts while some when a farmer wants small amounts. For example, if a farmer wants to buy feed or drugs, they can use community lending groups but if they want to build pens, they might need to consider securing a bank loan or matching grants from NGOs or lease pens in the short-run while raising their capital to build.

ii. The type of expenditure/purpose for which the finance is required determines the source of finance. Long-term sources are best for capital expenditure projects for example if the farmer or a group of farmers wants to build a new abattoir. On the other hand, short-term sources are best when for instance a farmer wants to pay suppliers of feed or drugs bought on credit.

iii. The length of time for which the money is required also determines the most appropriate source of finance. If money is required for long periods, it is advisable to go for long-term sources of finance whereas short-term sources can be used if money is required for relatively short periods.
iv. The size, status and ability of the business to borrow. If the farmer has collateral, borrowing from financial institutions might be an option but if the farmer is small and does not have collateral, borrowing from financial institutions might not be an option.
v. The business's level of reserves and profits. If a business has some reserves it can use them instead of borrowing and if the business is making enough profits it can plough back the profits instead of sharing them and then avoid borrowing.
vi. The cost of the source of finance. Most sources of finance have certain costs associated with them for example, interest is the cost of borrowing money from a bank, a lease fee is charged on leased assets, etc.

6.6.4 Factors Banks Normally Consider Before Granting A Loan

Some of the common factors that banks and financial institutions consider before extending loans to farmers are given in Figure 6 8.

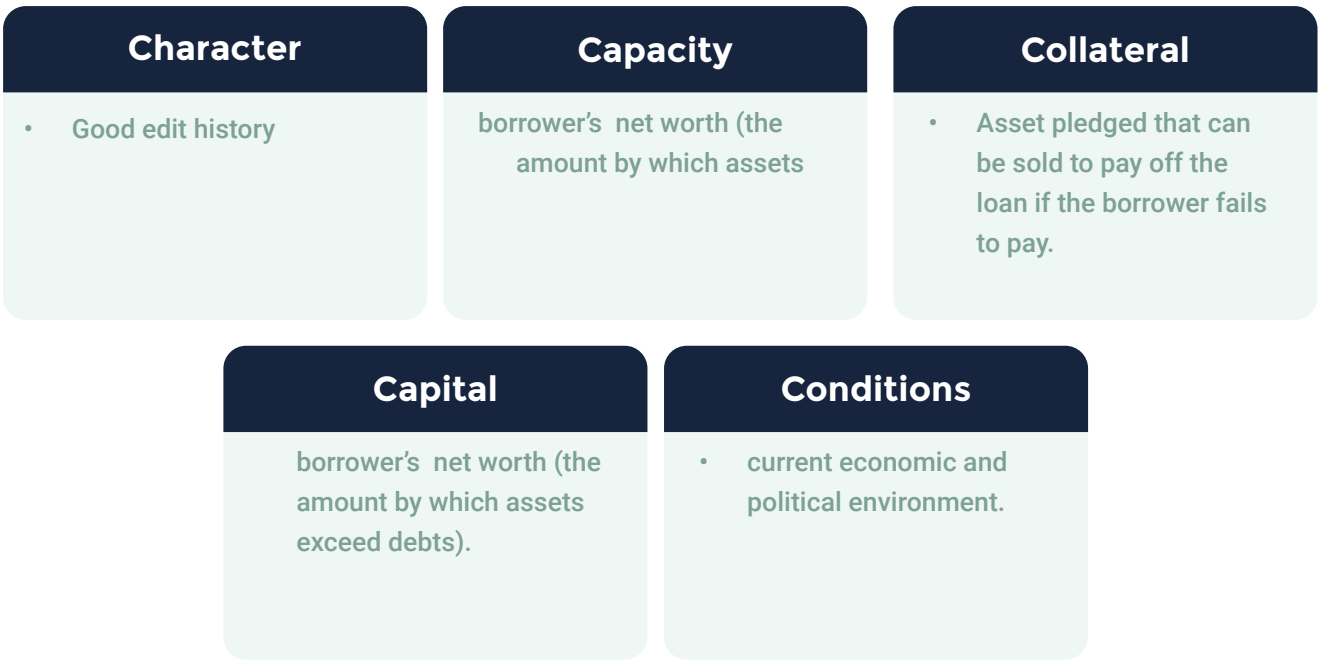


Figure 6 8: Factors Banks Normally Consider Before Granting A Loan

6.6.5 Factors affecting access to loans by smallholder farmers

Most financial institutions in Zimbabwe are hesitant to extend loans to smallholder commercial producers due to security issues. These factors are presented in Figure 6.9.

Figure 6 9: Factors affecting access to loans by smallholder farmers

Figure 6 9: Factors affecting access to loans by smallholder farmers

6.6.6 Interest Calculations

- In all cases when borrowing money from financial institutions, borrowers are charged interest.
- When people invest money with financial institutions, they earn interest.
- This section defines interest and demonstrate how it is calculated.

6.6.6.1 Interest

- It refers to the cost of borrowed funds or financial gain that you get when you save or invest money with a financial institution.
- For instance, if a farmer borrows money from a bank, the bank charges the farmer interest.
- At the same time if a farmer deposits money with a financial institution, they earn interest or a financial gain or benefit.

6.6.6.2 Simple and Compound Interest

- Simple interest refers to a financial benefit or gain which does not earn further gain. For example, if you invest $5000.00 in an investment vehicle which pays interest per year for five years, the interest that you earn in the first up to the fourth year will not earn further interest.
- On the other hand, if interest is compounded, the interest earned in the first year will be invested and earn further interest.
- In commercial business setups, interest is usually compounded.

Simple Interest = Principal × simple interest rate× time in years

Where:

- Principal refers to the initial about borrowed
- Simple interest rate is the cost of borrowing as a decimal. If the interest rate is 25%, then 25/100 or 0.25 will be used in calculations.
- Time in years refers to the duration over which money will be borrowed.

Future Value = Principal + simple interest

Where:

- Future value refers to the sum of the initial amount borrowed (principal) and cost of borrowed funds (simple interest).

Example

Calculate the interest and future value of $20 million borrowed for 30 years at 30.456% simple interest per annum.

Simple Interest = Principal × simple interest× time in years

= 20 000 000 × 0.30456 × 30

= $182 736 000

So the total interest that is paid over 30 years is $182 736 000

Future Value = Principal + interest earned

= 20(1 + 0.30456 × 30)

= $ 202 736 000

This means that after 30 years the total value of the amount borrowed plus the interest will be equal to $ 202 736 000

Compound Interest (C)= Principal ×((1+interest rate)^n-1)

Where:

n = time in years

Example

Future Value = Principal + Compound interest

Example: Mercy a goat/pig farmer invested $10 000 at 10 percent interest rate payable per annum rate for three years. Calculate the compound interest that Mercy would receive after three years and future value that she will be having after three years.

Compound Interest= 10000×((1+0.1)^3-1)=$ 3310

So after three years, Mercy would have earned compound interest $3 310.00

Future value=10000×(1+0.1)^3=$13 310.00

At the end of three years, Mercy would be having a total of $13 310.00

6.7 RISK MANAGEMENT

Learning Outcomes

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

1. To identify risks that may affect their livestock.
2. To assess risks.
3. To control or manage risks.

- A risk is an uncertain event that may occur in the future and may prevent or delay the achievement of an organization's objectives.
- A risk is not certain that is its likelihood can only be estimated.
- Risk management is the process of identifying, assessing and controlling threats to capital and earnings of a business venture.
- These threats, or risks, could stem from many sources such as financial uncertainty, legal liabilities, strategic management errors, accidents and natural disasters.
- The purpose of risk management is to identify potential problems before they occur so that risk-handling activities are planned and invoked as needed to mitigate adverse impacts on achieving objectives.

6.7.1 Risk management Process

Risk management is a process made of five steps and these steps are shown in Figure 6.10 and explained thereafter.

Figure 6.10: Risk Management process

6.7.2 Step 1: Identify risks

- The first step is to identify the risks that the pig/goat production business is exposed to in its operating environment.
- There are many different types of risks – financial risks, market risks, legal risks, environmental risks, legal and regulatory risks, strategic management errors, and much more.
- It is important to identify as many of these risk factors as possible. Figure 6 11 presents some of the risks which can affect pig/goat production ventures.

Figure 6.11: Risks which can affect farmers

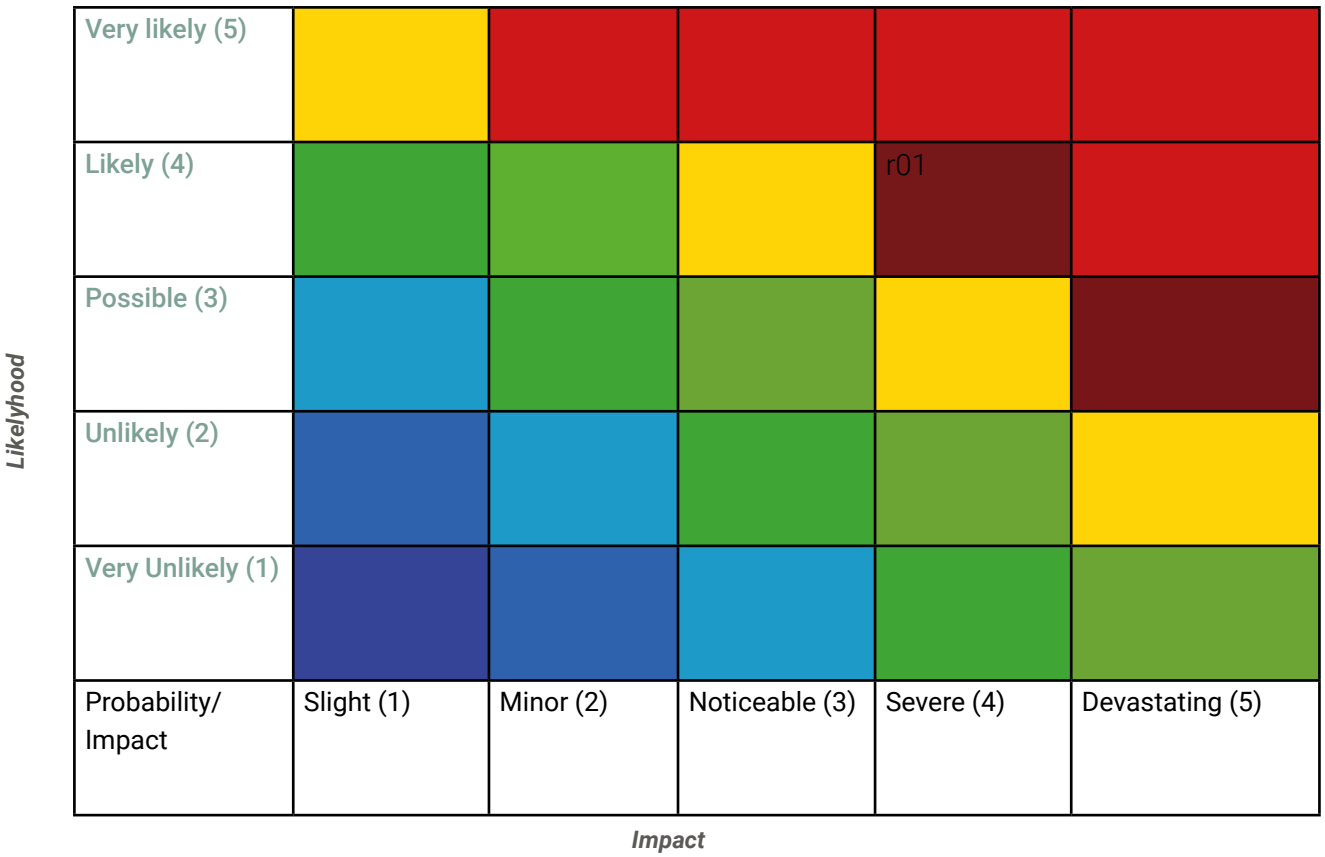
Financial and Market Risks	Legal Risks	Accidents and Natural Dissasters
• Price flactuations. • Changes in interest rates. • Changes in exchange rates. • No market. • Market saturation.	• Failure to honour obligations. • Introduction of new livestock policies, levies, etc.	• Floods, fire or wind destroying structures and livestock. • Drought affecting livestock, crops, pastures. • Theft of feed, drugs, livestock. • Dieseases killing livestock. • Accidents killing livestock.

Activity

Identify as many risks as possible which might affect your goat/pig production business.

6.7.3 Stepwisks

- In step one, the farmer identified some possible risks, once this has been done, the risks need to be analysed.
- The analysis involves establishing the probability or likelihood of a risk happening and the impact of the risk once it happens.
- Some risks can bring the whole business to a standstill if actualized, while there are risks that will only be minor inconveniences in analyzed.
- Farmers are therefore encouraged to prepare a risk assessment matrix following the template similar to the one in Table 6.17.
- For each risk identified, the farmer may be using a 5 point scale should determine the probability of the risk happening and using again a five-point scale to determine the impact of the risk.
- Once that is done, then the farmer should fill in the matrix in Table 6.17.
- For example, from June to December what is the likelihood that a fire will erupt which might destroy livestock and structures.
- We might say the likelihood is 4/5 and when the fire breaks out the impact will be severe (4/5).
- We can then give this risk a reference identifier for example r01 and then we add it to the matrix as shown in the matrix.



6.7.4 Step 3: Evaluate or Rank the Risk

- This step involves ranking and prioritising risks.
- Most risk management solutions have different categories of risks, depending on the severity of the risk.
- A risk that may cause some inconvenience is rated lowly, risks that can result in catastrophic loss are rated the highest.
- The farmer can multiply the probability and impact of a risk to get a score that can then be interpreted according to Table 6.18.

Table 6.18: Ranking risks

Score	Rank
1-7	Low
8-15	Medium
16-25	High

Activity

Evaluate each of the risks analysed in the previous step.

6.7.5 Step 4: Treat the Risk

- Every risk needs to be eliminated or contained as much as possible.
- Risk mitigation strategies include avoiding the risk where possible, transfer the risk, mitigate the risk or accept the risk.
- Risk acceptance does not reduce any effects however it is still considered a strategy.
- This strategy is a common option when the cost of other risk management options such as avoidance or limitation may outweigh the cost of the risk itself.
- A company that doesn't want to spend a lot of money on avoiding risks that do not have a high possibility of occurring will use the risk acceptance strategy.
- For example, the risk that pigs/goats might be destroyed by fire.
- If in a certain area, this risk is highly unlikely, then acceptance might be the best strategy.
- Risk avoidance is the action that avoids any exposure to the risk whatsoever and is usually the most expensive of all risk mitigation options.
- Risk limitation is the most common risk management strategy used by businesses which limits exposure by taking some action.
- An example of risk limitation would be a farmer accepting that livestock may be affected by diseases and avoiding the risk of livestock deaths by vaccinating.
- Besides, a farmer may insure livestock against threats.
- In Zimbabwe, several financial institutions are offering agricultural insurance.
- The farmer after assessing the risk should then take appropriate insurance.
- Farmers are required to pay monthly or annual premiums to the insurance company.
- In the event of a risk that the farmer should have insured against, the insurance company will compensate the farmer so that they are put in the same condition there were in before the threat.
- Risk transference is the involvement of handing risk off to a willing third party.
- This may also involve outsourcing certain operations such as strategic planning and other operations.
- This can be beneficial for a company if a transferred risk is not a core competency of the company such that a company can focus more on their core competencies.
- After going through steps 1 to 4, the farmer should then draw up a risk register using a template in Table 6.19.

Table 6.19: Risk register

Ref #	Risk Description	Controls/actions in place	Impact	Likelihood	Weighting	Risk owner	Further actions required	Date when further action will be in place
r01	Veld Fire - Veld fires might occur in the dry season. - These fires might destroy livestock, pastures, structures and equipment.	Fireguard has been put in place around pens.	4	4	16 (4x4) High	Farmer	Close monitoring and having water and other fire fighting equipment to fight the fire if it happens.	01-01-2021
r02	Theft - Following an incidence of theft of stock feed from stores, theft of goats/pigs last month there is risk that our control and security measures may not be good enough to safeguard livestock and feed.	- Security fence has been put around the premises . - a security guard has been engaged.	3	4	12 (3x4) Medium	Farmer and security guard	The farmer needs to monitor the farm on a regular basis and make sure that storerooms and pens are more secure.	01-01-2021

Below is an explanation of the column headers for Table 6.19.

i. Ref # - is the number used to refer to a risk or threat.
ii. Risk Description – is a clear description of the risk, its cause and consequences.
iii. Controls / Actions already in place – is a list of measures which are in place to reduce the impact of a risk or its likelihood.
iv. Impact – this scale of 1 to 5 (1 = slight, 5 = devastating) (Note this is to be residual impact only).
v. Likelihood – a scale of 1 to 5 (1 = very unlikely, 5 = very likely) (Note this is to be residual likelihood only).
vi. Weighting – Its Risk Ranking: a calculated value i.e. impact x likelihood.
vii. Risk Owner – The administrative unit, management position or group who are in the best position to manage the risk on an on-going basis.
viii. Further Actions Required – The controls/solutions which have yet to be acted upon which could reduce the impact or likelihood of a risk.
ix. Date – The expected date as to when the actions shown under further actions required will be in place and effectively addressing the risk.

Activity

Prepare a risk register for yo.ur pig/goat production business.

6.7.6 Step 5: Monitor and Review the risk

Certain threats such as accidents and natural disasters are always present and cannot be eliminated, hence they need constant monitoring to ensure business continuity.

07 References

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