

## DEPARTMENT OF ENTREPRENEURSHIP EDUCATION

### FINANCIAL MANAGEMENT FORMULAE

1. Net purchases = *purchases - purchases returns*

OR

Net purchases = *purchases + carriage inwards - purchases returns (returns out wards )*

OR

Net purchases = *purchases*

OR

Net purchases = *purchases + carriage inwards*

OR

Net purchases = *Purchases + Wages + Carriage inwards - Return outwards*

2. Cost of goods available for sale / *Goods available for sale = Opening stock + Net purchases*

OR

Cost of goods available for sale = *Opening stock + Purchases*

3. Cost of sales/Cost of goods sold/cost price = *Opening stock + (Net)purchases - Closing stock*

OR

Cost of sales = *Goods available for sale - Closing stock*

4. Net sales/turnover = *sales-sales returns (returns inwards)*

5. *Gross profit = Net sales – cost of sales*

6. *Gross loss = Cost of sales-(Net) sales*

7. *Net profit = Gross profit- Operating expenses*

OR

Net profit = *Gross profit + other incomes – expenses*

8. Net loss = *Expenses- gross profit/gross income*

9. Capital owned/Owner's equity /equity capital= *Total assets - total liabilities*

OR

Capital owned = *Capital +Net profit- Drawings*

10. Borrowed capital/Loaned capital= *Total long term liabilities*

11. Fixed capital = *Total fixed Assets*

12. Circulating capital /Floating/Circulatory Capital= *Total current Assets*

13. Liquid Capital = *Total current assets- closing stock*

14. Working capital = *Current assets – Current liabilities*

15. Capital employed/Net worth = *Fixed Assets + Working capital*

OR

Capital employed = *Capital owned + borrowed capital*

### **LIQUIDITY RATIOS**

16. Working capital/Current ratio =  $\frac{\text{Current assets}}{\text{Current liabilities}}$

Interpretation: ***The business is /was..... times able to pay /clear all current liabilities using Current assets.***

17. Quick asset ratio /Acid test ratio/liquidity ratio =  $\frac{\text{Current Assets} - \text{Closing Stock}}{\text{Current liabilities}}$

Interpretation: ***The business was/is..... times able to clear/pay /meet its current liabilities using quick assets.***

18. Cash ratio/cash position ratio =  $\frac{\text{Cash} + \text{Bank}}{\text{Current liabilities}}$

### **PROFITABILITY RATIOS**

19. Margin /Gross profit margin/gross profit ratio =  $\frac{\text{Gross profit}}{(\text{Net})\text{Sales}} \times 100$

Interpretation: ***For every Shs. 100 of the sales revenue realized, Shs.... was/is gross profit***

OR: ***The business got a gross profit of Shs..... for every sales / net sale of sh of 100***

20. Mark up/Profit markup/Gross profit markup =  $\frac{\text{Gross profit}}{\text{Cost of sales}} \times 100$

Interpretation: ***For every shs 100 of Cost of sales, the business generates/generated Shs....as gross profit.***

21. Net profit margin/Net profit ratio =  $\frac{\text{Net profit}}{(\text{Net}) \text{ sales}} \times 100$

Interpretation: ***For every Shs. 100 of sales made, Shs.....was/is Net Profit.***

OR: ***The business got/gets a net profit of Shs....for every sales of Shs. 100***

22. Rate of return on capital invested/return on equity =  $\frac{\text{Net profit}}{\text{Owner's equity/Capital owned}} \times 100$

Interpretation: ***For every Shs 100 of owner's equity, Shs....was/is Net profit***

23. Rate of return on Capital employed =  $\frac{\text{Net profit}}{\text{Capital employed}} \times 100$

Interpretation: ***For every Shs 100 of capital employed, Shs..... was/is Net profit.***

### **EFFECIENCY RATIOS**

24. Average stock =  $\frac{\text{opening Stock} + \text{Closing stock}}{2}$

25. Rate of stock turn over/Stock turn over/ Stock turnover ratio/Inventory turnover ratio

$$= \frac{\text{Cost of sales}}{\text{Average stock}}$$

Interpretation: ***The business sells and replaces its stock... times in a trading period***

26. Stock turn over period =  $\frac{\text{Average stock}}{\text{Cost of sales}} \times \text{number of days/months/weeks in a year}$

Interpretation: ***The business holds/held stock for ....days/months/weeks before being sold/selling it.***

27. Rate of debtor's turnover =  $\frac{\text{Sales/Turnover}}{\text{Debtors}} \times 100$

28. Debtor's turn over period/ Average debt collection period/Debtor's days

$$= \frac{\text{Debtors}}{\text{Net sales}} \times \text{Number of days/ months/weeks in a year}$$

Interpretation: ***The business takes/ took an average of .... Days/weeks/months to collect money/debts from debtors.***

29. Debtors to sales ratio =  $\frac{\text{Debtors}}{\text{Net sales}} \times 100$

Interpretation: ***Out of every Shs 100 obtained by the business as net sales, credit sales (debtors) were Shs.....***

30. Rate of Creditor's turnover =  $\frac{\text{Net purchases}}{\text{Creditors}} \times 100$

31. Ratio of creditor's to purchases/ Creditor's ratio =  $\frac{\text{Creditors}}{\text{Net purchases}} \times 100$

Interpretation: ***Out of every Shs 100 of net Purchases, Shs.... Were credit purchases.***

32. Creditor's turnover period /Average payment period/ Average credit period/Creditor' days =  $\frac{\text{Creditors}}{\text{Net purchases}} \times \text{number of days/months /weeks in a year}$

Interpretation: ***The creditors were paid on average after/in ...days/weeks/months during the trading period.***

33. Fixed Assets turnover =  $\frac{\text{Net sales}}{\text{Fixed Assets}} \times 100$

Interpretation: ***Out of every Shs 100 fixed assets employed, the business was able to make net sales of Shs.....***

34. Total Assets turnover =  $\frac{\text{Net sales}}{\text{Total Assets}} \times 100$

Interpretation: ***Out of every Shs 100 of total assets employed, the business was able to make net sales of Shs.....***

35. Percentage of expenses to turnover/net sales =  $\frac{\text{Total expenses}}{\text{Net sales}} \times 100$

Interpretation: ***Out of every Shs 100 of Net sales made by the business, Shs.... Was spent on total expenses.***

36. Ratio of operating expenses to turn over/net sales =  $\frac{\text{Operating expenses}}{\text{Turn over/ Net sales}} \times 100$

Interpretation: ***Out of every Shs. 100 of Net sales made by the business, Shs.... Is/was spent on operating expenses.***

### **LEVERAGE RATIOS**

37. Debt to equity ratio =  $\frac{\text{Long term liabilities}}{\text{Total equity ( Owner' equity)}} \times 100$

Interpretation: .....% ***of the funds used in the business are in the form of long term liabilities***

OR

***Out of every Shs 100 of capital used in the business, Shs..... are in the form of long term liabilities.***

38. Debt to total assets/Debt ratio/solvency ratio =  $\frac{\text{Total long term liabilities}}{\text{Total assets}} \times 100$

### **OTHER RATIOS**

39. Interest cover =  $\frac{\text{Net profit before interest and tax}}{\text{Interest Expenses}}$

Interpretation: ***The net profit available for the year before paying interest and tax can settle interest payments .... times.***

40. Non-Current Assets turn over =  $\frac{\text{Sales for the period}}{\text{Fixed Assets (Non current assets)}}$

Interpretation: ***The non-current assets generate (d) a sales revenue of Shs.....***

41. Days Inventory outstanding =  $\frac{365\text{days}}{\text{Inventory turn over}} \frac{\text{No.of days in a year}}{\text{Inventory turn over}}$

42. Times interest earned =  $\frac{\text{Earnings before interest and tax}}{\text{Interest expense}}$

**(No. of times interest is converted into income, and if the company can pay its interest expense using the profits generated).**

$$43. \quad \text{Earnings per share} = \frac{\text{Net profit / Net income} - \text{preferred dividend}}{\text{Average common shares}}$$

$$44. \quad \text{Price – Earnings ratio} = \frac{\text{Market price per share}}{\text{Earnings per share}}$$

$$\text{Dividend payment ratio} = \frac{\text{Dividend per share}}{\text{Earning per share}}$$

*(Part of Net Income/net profit that is distributed to owners).*



$$45. \quad \text{Dividend yield ratio} = \frac{\text{Dividend per share}}{\text{Market price per share}}$$

## **TAXATION**

### **RENTAL INCOME TAX**

1. Gross rental income = *Rental income from all immovable property*
2. Chargeable rental income = *Gross income – Expenditure – Threshold and losses*
3. Rental income tax = *20% x chargeable rental income.*

### **INDIVIDUAL INCOME TAX**

4. Gross income = *(Business income + Employment Income + Property Income)- Tax Exempt income*
5. Chargeable Income = *Gross Income – Expenses and losses.*
6. **Income tax is calculated from the PAYE Income tax structure.**

### **EMPLOYMENT INCOME**

Sources: Wages, Salaries, Leave pay, Gratuity, Bonus, Allowances, Value of any benefit granted to an employee e.g. Car, House, Gift etc. and compensation for termination of contract of employment.

No	Chargeable (Monthly) Income	Tax rate
1	<i>Not exceeding Shs. 235,000</i>	Nil
2	<i>Exceeding Shs. 235,000 but not exceeding Shs. 335,000</i>	<i>10% of the amount by which chargeable income exceeds shs. 235,000</i>

3	<i>not exceeding Shs. <b>335,000</b> but not exceeding <b>410,000</b></i>	<i>Shs. 10,000 plus 20% of the amount by which chargeable income exceeds shs. 335,000</i>
4	<i>Shs <b>410, 000</b> and above</i>	<i>Shs. 25,000 plus 30% of the amount by which chargeable income exceeds shs. 410, 000 and / plus 10% of the amount by which chargeable income exceeds shs. 10,000,000</i>

NB: *For annual; multiply all the above figures by 12 e.g. 235,000 x 12= apart from the rates (Percentages)*

## VALUE ADDED TAX

$$7. \quad \text{VAT Liability} = \text{VAT rate} \times \text{value added} \\ = 18 \% (\text{Sales} - \text{Purchases})$$

$$\text{OR} \quad \text{VAT Liability} = \text{Output tax} - \text{Input tax} \\ = 18\% \times \text{Sales} - 18\% \times \text{Purchases}$$

$$\text{OR} \quad \text{VAT liability} = \text{VAT on sales} - \text{VAT on Purchases}$$

$$8. \quad \text{VAT Exclusive} = \frac{18}{110} \times (\text{VAT Exclusive value}).$$

$$9. \quad \text{VAT Inclusive} = \frac{18}{118} \times (\text{VAT Inclusive value})$$

## INTERNATIONAL TRADE TAXES:

$$10. \quad \text{Customs value (C.V)} = \text{CIF} \times \text{Exchange rate}$$

Where  $\text{CIF} = \text{Cost} + \text{Insurance} + \text{Freight}$

$$11. \quad \text{Import Duty} = \text{Import Duty rate} \times \text{Customs Value}$$

$$12. \quad \text{Excise duty} = \text{Excise Duty rate} \times (\text{Customs Value} + \text{Import Duty})$$

$$13. \quad \text{VAT} = \text{VAT rate} \times (\text{Customs Value} + \text{Import Duty} + \text{Excise Duty})$$

$$14. \quad \text{Withholding Tax} = \text{Withholding Tax rate} \times \text{Customs Value}$$

15. *Environmental Levy* = Environmental Levy rate x Customs Value

END