



STRATHMORE BUSINESS SCHOOL
MASTER OF SCIENCE IN DEVELOPMENT FINANCE
END OF SEMESTER EXAMINATION
MDF 8101: MICRO-ENTERPRISE FINANCE

Date: Monday 9th December 2024

Time: 3 Hours

Instructions

1. This examination consists of **FIVE** questions.
2. Answer **QUESTION ONE** and **ANY OTHER THREE** questions.

Question 1 (Compulsory) (40 Marks)

a) When financing new ventures, banks face significant challenges due to the dynamics of the entrepreneurial landscape. One of the challenges banks grapples with includes moral hazard and adverse selection.

Required:

Using relevant examples, discuss how moral hazard and adverse selection arise in the context of new venture financing and the strategies used by lenders to reduce their effects. **(10 marks)**

b) The management of Wewe & Co. Limited has prepared projections for the first year to apply for venture financing to start a new restaurant. As of December 2019, they have a cash investment of Sh. 100,000, motor vehicle worth sh. 400,000. On 1st January, they received a loan of Sh. 75,000 from their savings & credit cooperative (SACCO) and started operations on the same day. Wewe & Co. Limited is aware that you have enrolled in the Master of Science in Development Finance at Strathmore University and has engaged you as a consultant, at a fee of Sh. 50,000, to help them prepare integrated financial projections for 2020, 2021 & 2022, to be presented to venture capitalists.

The following assumptions can be made:

1. Sales are projected to be sh. 200,000 in the first year and will increase by 15% annually.
2. Cost of sales are estimated to be 30% of the sales per annum.
3. Operating expenses (including depreciation and interest) are 35% of sales.
4. Depreciation is on a straight-line basis over 20 years Motor vehicle.
5. Based on industry norms, the following has been suggested:
 - (i) Ending inventory: 20% of sales per annum.
 - (ii) Ending accounts receivable: 10% of sales per annum.
 - (iii) Ending accounts payable: 10% of cost of sales per annum.
6. There will be a four-month moratorium on all loan payments, after which a monthly interest rate of 12% will be applied to the loan. The loan repayment period to the SACCO will be 5 years.
7. Taxation of 30% per annum is paid in the same year in which it is incurred.
8. Dividend paid is 20% of profit after tax per annum.

Required:

Prepare an integrated set of financial projections for the first-year operation (2020). The projections should include three years. (2020, 2021 and 2022)

- (i) Statement of Profit and Loss **(10 marks)**
- (ii) Statements of financial position **(10 marks)**
- (iii) Statement of Cashflow **(9 marks)**
- (iv) Based on the above, comment on the financial health of the company in the year 2020 **(1 marks)**

Question 2 (20 Marks)

a) Researchers have argued that there is no universally accepted definition of Micro, Small, and Medium Enterprises (MSMEs), and what qualifies as an MSME in a developed country can differ significantly from the definition in a developing country context. However, there are common attributes that appear common across the definitions.

Required:

Using relevant examples, discuss any three common attributes used in the definition of MSMEs.

(7 marks)

b) Mwachoa, an entrepreneur, intends investing in a financial instrument that will give him US\$40,000 per year at the end of each year for 20 years. If the investment can earn 12%, compounded annually, what is the present value of Mwachoa's investment? **(5 marks)**

b) MSMEs are regarded as engines of economic growth globally. However, they face numerous challenges; while some succeed, others do not. Issues regarding MSMEs are critical not only for entrepreneurs but also for managers, customers, suppliers, regulators, policymakers, academics, and the general public.

Required:

Using relevant examples, discuss four main challenges faced by MSMEs in developing economies. **(9 marks)**

Question 3 (20 marks)

a) In entrepreneurial finance, determining the value of a start-up or small business is a pivotal task. This process involves applying various methods aimed at estimating its worth, which is crucial for attracting investors, securing funding, and guiding strategic decisions.

Required:

Discuss any three methods of valuing a company in the context of entrepreneurship and their significance in today's dynamic business environment. **(6 marks)**

b) Macheo Ltd, a furniture manufacturing company, operates in a competitive market where demand for its products fluctuates monthly. The company produces and sells furniture units, with raw materials purchased on credit from suppliers. Macheo faces the challenge of managing its cash flow effectively to meet production costs, overheads, and supplier payments while ensuring sufficient liquidity for day-to-day operations. As Macheo Ltd prepares its cash budgets for January, February, and March, incorporating the given budgeted data and operational parameters, analyse the company's cash flow projections and provide insights into its financial management strategies. The budgeted data are as follows:

	November	December	January	February	March
Sales (units)	750	800	800	850	900
Production (units)	800	800	850	900	950
Direct labour and variable overheads incurred	£48,000	£48,000	£51,000	£54,000	£56,000
Fixed overheads incurred (excluding depreciation)	£20,000	£20,000	£20,000	£20,000	£20,000

The selling price per unit is £200. The purchase price per kg of raw material is £20. Each unit of finished product requires 3kg of raw materials, which are purchased on credit in the month before they are used in production. Suppliers of raw materials are paid one month after purchase.

All sales are on credit. Eighty percent of customers, by sales value, pay one month after sale and the remainder pay two months after sale. The direct labour cost, variable overheads and fixed overheads are paid in the month in which they are incurred.

Machinery costing £100,000 will be delivered in February and paid for in March. Depreciation, including that on the new machinery, is as follows: Machinery and Equipment £3,500 and Motor vehicle £800.

Additionally, the opening cash balance at 1st January is estimated to be £15000 and Dividends are paid three months after they are declared in February, they declared £10,000 dividends.

Required:

- a) Prepare a cash budget for each of the three months January, February and March **(12 marks)**
- b) Comment briefly on any matters concerning the liquidity situation that you feel should be drawn to the attention of management. **(2 marks)**

Question 4 (20 Marks)

- a) Effective working capital management is crucial for maintaining liquidity and ensuring operational success for MSMEs. Without sufficient cash, these businesses may struggle to meet day-to-day operational expenses, invest in opportunities, or navigate unforeseen financial setbacks.

Required:

Using examples, discuss the four best practices for managing working capital available to entrepreneurs **(5 marks)**

b) Hometech Limited, a supplier of home appliances from China and Dubai, is facing a significant financial challenge as its overdraft level has reached an all-time high of Ksh 100 million. Ms. Anne Waithera, the manager of Barclays Bank Westlands Branch, reached out to Mr. Smith, the company's representative, to discuss this issue. While the bank does not have a problem with the current overdraft, Anne recommended that Mr. Smith explore alternative financing methods for the company. In preparation for a Board of Management meeting, the Finance Manager, Mr. Samuel Ogalo, has requested that junior staff prepare key financial ratios to facilitate discussions regarding the company's financial health and potential financing strategies. The junior staff presented the ratios as follows:

Financial Ratios	2,018	2,019
Current ratio	1.45	2.26
Receivable days	32.44	30.42
Quick ratio	0.37	0.53
Payable days	30.82	45.67
Inventory days	140.38	151.36
Debt to equity ratio	32%	13%
Times interest earned	10.00	14.18
EPS	35.00	61.00
Gross Profit Margin	28%	30%
ROA	15%	24%
ROE	22%	31%
DPS	40	25

Required:

- a) Assist the Junior staff in grouping the ratios into liquidity, efficiency, leverage, profitability, and valuation. **(5 marks)**
- b) List three key users who will find the above ratios useful. **(1 marks)**
- c) Use the identified groups to analyze the financial health of homestretch during the two-year period. **(6 marks)**
- d) What additional information could be gained from knowing that the industry averages for the gross margins were 40%, current ratio was 2 and quick ratio 1? **(3 marks)**

Question 5 (20 Marks)

- a) An entrepreneur is interested in turning opportunities into a viable business, growing the business, and eventually harvesting the resulting value from such a business venture investment.

Required:

Discuss the three harvesting options, namely Initial Public Offer (IPO), Acquisitions, and Management Buyouts (MBOs). **(10 marks)**

- b) An entrepreneur is considering two potential investment projects, each requiring an initial capital outlay of \$10 million. Both projects have different cash flow patterns over the next five years, and choosing the right one is crucial for maximizing returns and ensuring sustainable growth. Project A has a steadily increasing series of after-tax cash flows over the years, starting with \$1 million in the first year and progressively rising to \$5 million by the fifth year. In contrast, Project B generates higher cash flows at the beginning, with \$5 million in the first year, but these amounts gradually decline each year, ending with \$1 million in the fifth year. Both projects share the same cost of capital of 10%.

Required:

Use the Net Present Value (NPV) to determine which project should the entrepreneur pursue **(10 marks)**