

Business Finance Assignment 1

1) Which of the following statements is NOT true about internal rate of return ~~and~~ method of project appraisal.

D. IRR is the most reliable means of choosing between mutually exclusive ~~over~~ projects.

2) Which one of the following is the correct formula for the Price earning ratio?

A. Market Price of share / Earning per share

3) While calculating inventory turnover period, inventories include

D. All of the above

4) What is the company's cash inflow from operating activities for the year ended 2019?

C. 900,000

5) i) What is the cash flow from the project at date 1?

→ Cash flow $\Rightarrow$ Sales - Cost $\Rightarrow 2500 - 1500 \Rightarrow 1000$

Tan deduction $\Rightarrow 1000 - 40\% \Rightarrow 600$

ii) What is the NPV of the project?

→ Discount Rate → 20%.

$$NPV \rightarrow \frac{2500}{1+20\%} - \frac{1500}{1+20\%} - \frac{400}{1+20\%} = 500.333$$

iii) The net present value of the project will increase due to the increase in the time of the payment.

b) If you want to measure any business efficiency, what ratios you will analysis and why?

→ Inventory turnover ratio : it is an important ratio to measure to calculate how well the the business is turning its inventory into profits.

Trade Receivable Turnover period : It is used in business accounting to quantify how well the business is managing the credit that they provide the outcomes. ~~If is~~ It is also helpful to measure the frequency of a business's receivables or converted to cash.

Trade Turnover Ratio : It is used to measure the number of times the business is paying off its creditors or ~~to~~ supplier in an accounting period.

7. Briefly list down the limitations of ratio analysis.

- Changes in the operation are unexpected and hence there can be a difference i.e. before the changes and after the changes.
- Ratio analysis done using past data and reference are taken but there lack of reference from current or future date.
- Financial accounting data is influenced by various and hypotheses. Different accounting methods are used which reduces the ability to compare and thus it is less effective.
- The rate of inflation also affects the ratio analysis ~~very~~ majorly.

8. i) Beta measures the expected ~~as~~ return in a stock relative to movement in the overall market.

A beta greater ~~than~~ $\pm$ than 1 indicated a stock's price more volatile i.e. it is more valuable. A beta less than 1 indicates that a stock's price is less volatile than the overall market.

Reason for different beta is that they might to taking different things into consideration with calculations of the Beta.

The nature of the business also plays an important role while calculating beta.

- ii) β_{geared} of 1.1 on a debt equity ratio 1:2.
Corporate tax $\Rightarrow 30\%$.

$$\beta_{\text{geared}} = \beta_{\text{ungeared}} \left[1 + \frac{D}{E} (1 - t) \right]$$

$$1.1 = \beta_{\text{ungeared}} \left[1 + \frac{1}{2} (1 - 30\%) \right]$$

$$0.8148 = \beta_{\text{ungeared}}$$

$$\text{when } D/E = 2:2$$

$$\beta_{\text{geared}} \Rightarrow 0.8148 [1 + (1 - 30\%)] = 1.38516$$

- 9) Which of the following statements is true?

D. In general the market value of investment trust is not correlated to the net present value.

- 10) i) The problems associated in such scenarios are:-
- Shareholders are usually after easy and fast profits whereas the company thinks and plans for a long run and future opportunities.

- There might be a conflict or clash amongst the shareholders thoughts and the company itself.
- It is necessary for the managers to take shareholders into consideration but it is not always true.

ii) current dividend $\Rightarrow \text{£}10$ Risk free rate $\Rightarrow 6\%$
 growth $\rightarrow 8\%$ market risk premium $\Rightarrow 5\%$
 $\beta = 1.3$

Required equity $\Rightarrow$ Risk premium $\times \beta +$ Risk free rate
 $\Rightarrow (1.3 \times 5)$

i) Beta is a measure of stock's volatility in relation to the overall market. It measures the expected move in share relative to movement of the overall market.

Beta = $\frac{\text{Covariance of return of an asset}}{\text{Variance of return on the overall market}}$

ii) Beta greater than 1 indicates high volatility whereas beta less than 1 indicates less volatility of the price in the overall stock market.

12) $\frac{D}{E} = \frac{1}{1}$, $R_F = 7\%$, $ERP = 5\%$, $t = 25\%$, $\beta = 1.5$

gross cost of debt = 9% .

i)
$$WACC = R_E \left(\frac{M_E}{M_E + M_D} \right) + R_D^N \left(\frac{M_D}{M_E + M_D} \right)$$

$$= (7\% + 5\% \cdot (1.5)) \left(\frac{1}{2} \right) + 9\% \cdot (1 - 25\%) \left(\frac{1}{2} \right)$$

$$= 0.145 \times \frac{1}{2} + 0.0675 \times \frac{1}{2} = 0.10625 = 10.625\%$$

ii) Find $\beta_{unlevered}$, ROE

$$1.5 = \beta_{unlevered} \left(1 + \frac{1}{1} (75\%) \right) = 1.75 \beta$$

$$\beta_{unlevered} = 0.857$$

$$ROE = 7\% + 5\% \cdot (0.857) = 0.1129 = 11.29\%$$

13) i)
$$NPV = 40000 (1.15)^{-1} + 40000 (1.064) (1.15)^{-2} + \dots + 40000 (1.064)^3 (1.15)^{-4}$$

$$= 40000 (1.15)^{-1} (1.064 (1.15)^{-1} + \dots + (1.064)^3 (1.15)^{-3})$$

$$= 34882.6087 (2.573255885)$$

$$= \cancel{89504.05} \quad 89504.55253$$