



ASSIGNMENT MEMORANDUM

SUBJECT : FINANCIAL ACCOUNTING (FA)

ASSIGNMENT : 2ND SEMESTER 2011

QUESTION 1 (Suggested solution) [20]

	Date	Account to be debited	Account to be credited	Effect on the quadrant				Calc	
				Assets +/-	Capital/liabilities	Expenses/ Costs +/-	Revenue +/-		
1.1	4 Feb	Salary – PAYE	Bank	-12 825		+12 825			(2)
1.2	10 Feb	Inventory (materials) Vat input	Creditors Control	+110 000 +15 400	+125 400			1	(3)
1.3	13 Feb	Bank	Sales (Cash)	+14 326			+14 326		(2)
1.4	19 Feb	Bank	Investment	+130 000 -130 000					
	20 Feb	Salaries	Bank	-126 400		+126 400			(4)
1.5	25 Feb	Bank Discount	Debtors control	+37 145 -39 100		+1 955		2	(3)
1.6	27 Feb	Interest Paid	Bank	-30 375		+30 375		3	(3)
1.7	27 Feb	Debtors Control	Sales (credit)	+134 671			+134 671		(3)
Alt:		Debtors	Vat output Sales	+134 671	+16 539		+118 132		

[20]

CALCULATIONS

$$\begin{aligned}
 1. \quad \text{Vat portion} &= 14/114 \times 125\,400 \\
 &= 15\,400
 \end{aligned}$$

All students may not be familiar with the VAT process. Although prices are shown as VAT inclusive, it is an add-on tax and the final value equal to 100 + 14 (14% of 100).

$$\begin{aligned}
 2. \quad \text{Discount} &= 5\% \times 39\,100 \\
 &= 1\,955
 \end{aligned}$$

The company will thus receive less than the original debt.

$$\begin{aligned}
 3. \quad \text{Interest} &= 450\,000 \times 13,5\% \times \frac{1}{2} \\
 &= 30\,375
 \end{aligned}$$

Interest being paid half-yearly.

QUESTION 2 (Suggested solution) [40]

2.1 Not only ratios, but also changes in numbers and proportions should be addressed, covering all line items contributing to profitability. Comment should focus on the trends obtained.

	2010	2009	2008	2007	
Operating profit %	= $\frac{382,5}{2\,161,3}$ = 17,7%	$\frac{268,4}{1\,578,9}$ 17,0%	$\frac{200,5}{1\,253,1}$ 16,0%	$\frac{249,2}{1\,424,0}$ 17,5%	(2)
Change (Δ) in sales	= $\frac{2\,161,3 - 1\,578,9}{1\,578,9}$ = 36,9%	$\frac{1\,578,9 - 1\,253,1}{1\,253,1}$ 26,0%	$\frac{1\,253,1 - 1\,424,0}{1\,424,0}$ -12,0%	-	(2)
Expected sales	= $1\,578,9 \times 1,11$ $\times 11 \div 9$ = 2 142,0	-	-	$1\,424 \times 1,064$ $\times 8 \div 10$ 1 212,1	(2)
Operating cost to sales	= $\frac{125,65}{2\,161,3}$ = 5,8%	$\frac{116,34}{2\,161,3}$ 5,4%	$\frac{108,22}{1\,253,1}$ 8,6%	$\frac{102,1}{1\,424,0}$ 7,2%	(2)
Increase in operating costs	= $\frac{125,65 - 116,34}{116,34}$ = 8,0%	$\frac{116,34 - 108,22}{108,22}$ 7,5%	$\frac{108,22 - 102,1}{102,1}$ 6,0%	-	(2)
Tax rate	= $\frac{58,49}{208,9}$ = 28%	$\frac{30,18}{104,07}$ 29%	$\frac{12,84}{44,28}$ 29%	$\frac{33,18}{110,6}$ 30%	(2)
Interest	Stable	Stable	12%		(1)
				Max	[10]

Comment

- Except for 2008, which seems to be a problem year, % is fairly stable. **(1)**
 - Sales increased quite well, again except for 2008 and 2007 where a decline was experienced. **(1)**
 - Sales were well above expected sales from 2007 to 2010, taking into account the effect of inflation and change in market share. **(2)**
[One can start with 2007 and apply the inflation rate and then the change in market share cumulative (year on year).]
 - Operating costs well controlled and below the inflation rates, except 2008 – probably due to the decline in sales. **(3)**
 - The decrease in tax rates contributed to overall profitability. **(1)**
 - No interest other than on long-term loans was paid as stable from 2008 onwards. **(1)**
- Max [6]**

2.2

	2010	2009	
<i>Working capital</i>			
Current ratio	= $\frac{549\,650}{234\,550}$	$\frac{369\,500}{164\,470}$	
	= 2,3 : 1	2,2 : 1	(2)
Acid test	= $\frac{431\,070}{234\,550}$	$\frac{260\,300}{164\,470}$	
	= 1,8 : 1	1,6 : 1	(2)
Debtors days % _s	= $\frac{266,46}{2\,161,3} \times 365$	$\frac{207,63}{1\,578,9} \times 365$	
	= 45 days	48 days	(2)
Inventory turn	= $\frac{1\,778,7}{118,58}$	$\frac{1\,310,5}{109,2}$	
	= 15 times	12 times	(2)
			Max [6]

Select the ratios that will require a minimum of adjustment; this will cut down on time required and possibility of error. Ratios have all improved.

Debt structure

Based on book values

Debt : Equity	=	400 : 828,3	400 : 702,9	
	=	0,48 : 1	0,57 : 1	(2)
Gearing	=	$\frac{400}{400 + 828,3}$	$\frac{400}{400 + 702,9}$	
	=	32,6%	36,3%	(2)
Interest cover	=	$\frac{208,9 + 48}{48}$	$\frac{104,1 + 48}{48}$	
	=	5,4 times	3,2 times	(2)
			Max	[4]

Ratios have all improved. Interest cover above the general norm of 5 in 2010. Interest cover may also be used as a profitability ratio.

Shareholders

EPS	=	$\frac{150,4}{100}$	$\frac{73,9}{100}$	
	=	150,4 cps	73,9 cps	(2)
P/E ratio	=	$\frac{1\,575}{150,4}$	$\frac{770}{73,9}$	
	=	10,5 times	10,4 times	(2)
Change in price	=	$\frac{1\,575 - 770}{770}$	$\frac{770 - 200}{200}$	
	=	104,5%	285%	(2)
Book value ps	=	$\frac{828,3}{100}$	$\frac{702,9}{100}$	
	=	828,3 cps	702,9 cps	(2)
ROCE	=	$\frac{150,4}{828,3}$	$\frac{73,9}{702,9}$	
	=	18,2%	10,5%	(2)
			Max	[6]

Ratios have all improved to some extent. The P/E ratio being under the sector average indicates some reservation as to future performance. The share price in 2010 reflects a fair surplus over the book value per share.

2.3 The dividend cover should be used to answer the question.

	2009	2007	
Cover (eps/dps)	= $\frac{73,9}{25}$	$\frac{77,4}{25}$	
	= 3 times	3,1 times	(2)

The 2010 dividend represent a cover of $(150,4 \div 40)$ 3,8 and is a little out of line with the given years. (1)
(1)
[4]

2.4 Current market rate	16%	
Loan rate	<u>12%</u>	
Difference	<u>4%</u>	(1)

Additional interest		
= R400 m x 4%		
= R16 m		(1)
Profitability will decrease		(1)
Interest cover will decrease		(1)
Cash flow negatively impacted		(1)
Cost of capital will increase		(1)
	Max	[4]

QUESTION 3 (Suggested solution) [20]

3.1 Comment may be based on either the book values or the market values; equity available but specific debt not. Either the debt to equity or gearing approach may be followed.

Book Value

$$\begin{aligned} \text{Debt to Equity} &= 130,5 : 89,5 \\ &= 1,46 : 1 \end{aligned}$$

$$\begin{aligned} \text{Gearing} &= \frac{130,5}{130,5 + 89,5} \\ &= 59,3\% \end{aligned}$$

Market value

$$\begin{aligned} \text{Debt to Equity} &= 130,5 : 25 \times 4 \\ &= 1,31 : 1 \end{aligned}$$

$$\begin{aligned} \text{Gearing} &= \frac{130,5}{130,5 + (25 \times 4)} \\ &= 56,6\% \end{aligned}$$

Comment

Player Ltd is not excessively debt structured, as general norms for debt : equity and gearing are 1 : 1 or 50% respectively. The structure should be measured against their business sector to obtain a better perspective. **[2]**
[Comment 2, ratio 1] **[3]**

- 3.2 The individual options should be adjusted and compared to the existing situation. As the shares are issued at an adjusted market price, the market value ratios will be used for comparative purposes.

General

- The risk profile of Player Ltd will increase, as the new project is substantial compared to the existing business (R70 m vs. R256 m), increasing assets by 27% in 1 transaction. **(1)**
- Loan repayments after 3 years will put pressure on Player Ltd's cash flows. **(1)**

Equity

New shares issued
 = R70 m ÷ R3,5 = 20 m **(1)**

Loan

New loan of R70 m @ 16% p.a.

Risk:

- | | |
|--|---|
| 1. There will be an initial 'watering down of earnings' until the new project contributes to earnings (1) | 1. Risk will increase due to worsening debt to equity and profitability (refer below). (1) |
|--|---|

Current eps
 (12,384 ÷ 25) = 49,5 cps **(1)**

New eps
 (12,384 ÷ 45) = 27,5 cps **(1)**

Profitability:

- | | |
|---|---|
| 2. See comment above; profitability may initially take a dip. | 2. Interest charge will increase by R70 m @ 16% = R11,2 m. (1)
Profit before tax
= R12,384 ÷ 0,72
= R17,2 m (1)
Adj profit BT
= 6,0 m
∴ PAT = 6,0 m x 0,72
= 4,32 m (1)
EPS = 4,32 m ÷ 25 m
= 17,3 cps (1) |
|---|---|

Equity**Loan****Capital structure:**

- | | |
|--|--|
| <p>3. New structure
= 130,5 : 100 + 70
= 0,77 : 1 (1)
Well below accepted norms. (1)</p> | <p>3. New structure
= (130,5 + 70) : 100
= 2 : 1 (1)
Moving into risk territory. (1)
High gearing will, if co is profitable, improve earnings. (1)</p> |
|--|--|

Cost of finance:

- | | |
|--|--|
| <p>4. Cost of finance (WACC) will increase as equity more expensive than debt. (1)</p> | <p>4. Cost of finance will decrease as cost of debt (after tax) cheaper than equity. (1)</p> |
|--|--|

Comment

If Player Ltd is risk averse, it will elect the equity route; if not, it will use debt (and gearing) to improve earnings. (1)

A combination of the two funded mechanisms should be strived for to avoid extreme positions. (1)

Max [17]

QUESTION 4 (Suggested solution) [20]

- 4.1 Inventory should be valued at the lower of cost or net realisable value. Cost refers to the *production* cost of the product and NRV as the *estimated* selling price net of all costs to sell the inventory. The budgeted level will be the expected normal production.

Cost of completed items

	R	
Plastic (0,5 x 50)	25	(1)
Labour (1 x 15)	15	(1)
Machine time (1 x 20)	<u>20</u>	(1)
Direct cost	60	
Overhead (calc)	<u>10</u>	
Total production cost	<u>70</u>	

Packaging cost is not a production cost unless an integral part of the product, e.g. a can for a canned product.

Overhead calc:	R	
Production	340 000	
Adjust for: Spoilage	(8 000)	
Idle time	(12 000)	
Accounting cost ($\frac{1}{3} \times 240\,000$)	<u>80 000</u>	
Indirect cost	<u>400 000</u>	(2)
Per product ($\div 40\,000$)	R10	(1)

Normal costs only should be considered.

NRV

	R	
Sales price	120	
Discount (15%)	<u>18</u>	
	102	(1)
Packaging costs ($2,50 + 0,5 \times 15$)	<u>10</u>	(1)
Saleable condition	<u>92</u>	

This may be further adjusted by the portion of un-recovered overhead.

		R	
Value per above		92	
Other overhead		10	(2)
Transport	120 000		
Selling	120 000		
Admin ($240\,000 - 80\,000$)	<u>160 000</u>		
	400 000		
Production 40 000		<u>82</u>	(1)

The value of inventory (stock) is thus ($40\,000 - 36\,000$)

4 000 rackets @ R70 each	R280 000	(2)
	Max	[12]

4.2		New	Current	Difference	
Debtors	=	$15\,200 \times \frac{42}{365}$	$11\,856 \times \frac{46}{365}$		
	=	1 749 041	1 494 181	+254 860	(3)
Inventory	=	$13\,125 \div 13$	$11\,856 \div 11$		
	=	1 009 615	1 077 818	-68 203	(3)
Creditors	=	$12\,750 \times \frac{36}{365}$	$11\,400 \times \frac{36}{365}$		
	=	1 257 534	1 124 384	+133 150	(3)
				Max	[8]

Note the specific amounts on which each ratio is applicable.