

⊗ بتقيس حصة كل سهم عادي من الأرباح مقابل الأسهم المفضلة (Preferred) من حاجة تقيس حصصهم لأننا ثابتة.

{ ⇒ The higher the EPS, the higher the firm's profitability (∴ The better). }

## 5- Market Ratios :-

$$a- \text{Price} \setminus \text{Earning Ratio} = \frac{\text{market Price} \setminus \text{Share}}{\text{EPS}}$$

It measures how much the investors are ready to pay for a specific share in earnings.

{ ⇒ The higher the price \ earning ratio, the better. }

$$b- \text{Book Value} \setminus \text{Share (per)} = \frac{\text{Total Common equity}}{\text{\# of common stocks outstanding}}$$

⊗ Where :- Total common equity = Common stock @ par + APIC + Retained earning.

{ ⇒ The higher the market to book ratio, the better. }

P3-24

page 155 :-

$$1- \text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liab.}} = \frac{72,000}{69,000} \\ = 1.04 \text{ times.}$$

$$2- \text{Quick Ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{current liabilities}} \\ = \frac{72,000 - 45,500}{69,000} = 0.38 \text{ times.}$$

$$3- \text{Inventory turnover} = \frac{\text{CGS}}{\text{Inventory}} = \frac{106,000}{45,500} \\ = 2.33 \text{ times.}$$

$$4- \text{Average Age of Inventory (AAI)} = \frac{365}{2.33} \\ = 156.65 \text{ days.}$$

$$5- \text{Average Collection Period (ACP)} = \frac{\text{A/R} \cdot 365}{\text{Sales}}$$

$$\left( \text{or: } \frac{\text{A/R}}{\text{Av. sales/day}} \right) = \frac{25,000 \times 365}{160,000} \quad \text{والمدة المتوسطة}$$

$$\Rightarrow \text{ACP} = 57.03 \text{ days.}$$



$$6- \text{Debt Ratio} = \frac{\text{Total liab.}}{\text{Total Assets}} = \frac{69,000 + 22,950}{150,000}$$

$$= 0.613 = 61.3\% \quad (\text{الأقسيس تكون نسبة})$$

$$7- \text{Time interest earned Ratio} = \frac{\text{EBIT}}{\text{Interest exp.}} = \frac{17,000}{6,100}$$

$$= 2.78 \text{ times}$$

$$8- \text{Gross Profit margin} = \frac{\text{Gross Profit}}{\text{Sales}} = \frac{54,000}{160,000}$$

$$= 0.33 = 33\%$$

$$9- \text{Operating Profit margin} = \frac{\text{Operating Profit}}{\text{Sales}} = \frac{17,000}{18,000}$$

$$= 0.10 = 10\%$$

$$10- \text{Net Profit margin} = \frac{\text{EACS}}{\text{Sales}} = \frac{\text{Net Profit} - \text{Preferred div.}}{\text{Sales}}$$

$$= \frac{6,540 - 0}{160,000} = 0.04 = 4\%$$

$$11- \text{ROA} = \frac{\text{EACS}}{\text{Total Assets}} = \frac{6,450 - 0}{150,000} = 0.04 = 4\%$$

$$12- ROE = \frac{EACS}{\text{Total common equity}}$$

Total common equity  $\rightarrow$

$$\text{Total common equity} = \text{Common stock @ par} + \text{APIC} + \text{R.E.}$$

$$= 31,500 + 0 + 26,550 = \$58,050$$

$$\Rightarrow ROE = \frac{6540 - 0}{58,050} = 0.11 = 11\%$$

$$13- \text{Market} \backslash \text{Book value} = \frac{\text{market price} \backslash \text{share}}{\text{Book value} \backslash \text{share}}$$

$$\text{Book value} \backslash \text{share} = \frac{\text{total common equity}}{\# \text{ of C.S.O}}$$

$$= \frac{58,050}{3000} = \$19.35$$

$$\therefore \Rightarrow \text{Market} \backslash \text{Book ratio} = \frac{25}{19.35} = 1.29$$

$$\left( \begin{array}{l} (*) \# \text{ of C.S.O} \equiv \text{number of common stocks} \\ \text{outstanding} \end{array} \right)$$

B.S is



P3-22 page 153 :-

$$\text{Sales} = \$40,000,000$$

∴  $\frac{\text{Gross profit}}{\text{Sales}}$

$$\text{Gross profit margin} = 80\%$$

$$\text{Operating profit margin} = 35\%$$

$$\text{Net profit margin} = 8\%$$

$$\text{ROA} = 18\%$$

$$\text{ROE} = 20\%$$

$$\text{Total Asset turnover} = 2 \text{ times}$$

$$\text{ACP} = 62.2 \text{ days}$$

$$\begin{aligned} \text{Gross profit} &= 0.8 \times 40,000,000 \\ \Rightarrow \text{Gross profit} &= 32,000,000 \end{aligned}$$



(b)

b- Cost of Goods Sold (CGS) :-

$$\text{Sales} - \text{CGS} = \text{gross profit}$$

$$40,000,000 - \text{CGS} = 32,000,000$$

$$\Rightarrow \text{CGS} = \$8,000,000$$

c- Operating profit = ??

$$\text{op. profit margin} = \frac{\text{op. profit}}{\text{Sales}} = 0.35$$

$$\begin{aligned} \Rightarrow \text{Operating profit} &= 40,000,000 \times 0.35 \\ &= \$14,000,000 \end{aligned}$$

d- Operating expenses = ??

$$\text{Op. profit} = \text{gross profit} - \text{op. exp.}$$

$$\Rightarrow \text{operating expenses} = \$18,000,000$$

e- EACS = ??

$$\text{Net profit margin} = \frac{\text{EACS}}{\text{Sales}} = 0.08$$

$$\Rightarrow \text{EACS} = 40,000,000 \times 0.08$$

$$\text{EACS} = \$3,200,000$$

f- Total Assets = ??

$$\text{total assets turnover} = \frac{\text{Sales}}{\text{Total Assets}} = 2$$

$$\Rightarrow \text{Total Assets} = \frac{40,000,000}{2} = \$20,000,000$$

g- Total common equity = ??

$$\text{ROE} = \frac{\text{EACS}}{\text{Total Common equity}} = 0.2$$

$$\Rightarrow \text{Total common equity} = \frac{3,200,000}{0.2}$$

$$= \$16,000,000$$

h- Account Receivables ?? (A/R)

$$\text{ACP} = \frac{\text{A/R}}{\text{Av. sales/day}} = 62.2$$

$$\Rightarrow \text{A/R} = 62.2 \times \frac{40,000,000}{365}$$

$$\text{A/R} = \$6,816,438.356$$