

Mid term exam paper

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Subject: Construction financial management

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1. Introduction:

In all business financial statements are important for reflecting of health of a company. The construction companies without exception. Among various financial statements tow of them are very important ones income statements which show us company's profit and loss, the second is Balance sheet and third other we will see other important items that are closely related to these two financial statements.

For this purpose we selected LG Company's balance sheet for two consequence year (2017 and 2016).

Now we introduce below important items:

1.2 Balance sheet: Balance sheet shows a company's financial position as at point of time usually at the last date of the fiscal year it shows us company's financial situation at the specific. There are three major items in a balance sheet Asset, Liabilities, and Equity or net worth.

1.3 Asset: assets mean that represent what a company owns and classified in two categories as below:

- **Current assets:** it's generally show us what a company have in current stock and also current assets typically include categories such as cash, marketable, securities, short term investment, account receivable, prepaid expenses, and inventory.
- **Fixed assets:** also know tangible assets or property, plant, and equipments, is a term used in accounting for assets and property that cannot easily be converted with cash, fixed assets are also called long-term assets. and the sum is called total assets.

1.4 Liability: When a company owes obligation to some third parties then we call these obligations liability, liabilities are classified in two groups ones Current liabilities and other is long term liabilities

- **Current liabilities:** current liabilities are those that due in the next year and typically present money owed for operating expenses such as accounts payable, wages and taxes and short term bank loans.
- **Long term liabilities:** long term liabilities will be due until at least a year later such as long term bank loan, loans for mortgages of equipment, building, land and cars and sum of them are total liability.

1.5 Equity or Net worth: its capital investing of owners of a company, if the companies are owned by stockholders so equity is also referred to as stockholders equity. Equity represents the net worth of the business and gain from when total liabilities mines form assets.

Income statement:

	31/12/2017	31/12/2016
Operating income:		
Dividend income	319674	261298
Royalty revenue	278473	247829
Rental revenue	116698	104876
Total revenue	714845	614003
Operating expenses		
Employee benefit	43360	35977
Depreciation	19992	17953
Other operating expenses	155493	135948
Total operation expenses	218845	189878
Net operation income	496000	424125
Non operating income and expenses		
Financial income	9373	7333

Financial expenses	3620	440
Other non operating income	630800	446
Other non operating Expenses	13494	490
Profit before income taxes	1119059	430974
Income taxes expenses	166305	90816
Profit for the year	952754	340158
Earnings per share		
Common stock basic/diluted	5419	1934
Pre-1996 commercial law amendment preferred stock basic/diluted	5469	1984
Profit for the year	952754	340158
Other comprehensive income (loss)		
Items that may be classified subsequently to profit or loss		
Net gain (loss) on AFS financial assets	20743	3182
Remeasurement on the net defined benefit liability	900	3130
Total comprehensive income for the year	974597	333846

2. Methodology:

Balance sheet of LG company		
Assets	31/12/2018	31/12/2017
Current Assets		
Cash and Cash equivalent	35778	128683
Financial institution deposits	300500	100630
Other receivable, net	28869	34541
Other current assets	3781	3986
Asset held for scale	29375	83295
Total Current Assets	720313	35135
Fixed Assets		
Available for scale(AFS) Financial state	104249	76485
Other noncurrent receivable, net	499	489
Investment in subsidiaries	1008607	1163917
Investment in associated and joint	6559405	5916101
Other noncurrent assets	2719	2463
Property, plant and equipment, net	37111	39987
Investment property, net	788909	794001
Intangible assets	17081	15844
Total fixed assets	8518580	8009287
Total Assets (Current +Fixed)	9238893	8360422
Current Liabilities		
Other current payables	104517	100670
Current tax liabilities	156063	27028
Other current liabilities	14073	6637
Liabilities related to assets held for sale	5415	710
Total Current liabilities	280068	135045
Non-Current liabilities		
Other noncurrent payables	13351	10440
Net defined benefit liability	12234	14398
Deferred tax liabilities	146347	159064
Other noncurrent liability	5551	5862
Total noncurrent liabilities	177483	189764
Total liabilities	457551	324809

Shareholder's equity		
Issued capital	879359	879359
Capital surplus	2409002	2409002
Other capital items	(2385)	(2385)
Accumulated other comprehensive income	41009	20356
Retained earning	5454267	4729281
Total equity	8781342	8035613
Total (Equity + Liabilities)	9238893	8360422

2.2 Worth for elements of balance sheet:

31/12/2017

Total current asset=720313

Total fixed assets=8518580

Total assets=9238893

Current Liabilities=28068

Long term liabilities=177483

Total liabilities=457551

Total equity=8781342

31/12/2016

Total current asset=35135

Total fixed assets=8009287

Total assets=8360422

Current liabilities=135045

Long term liabilities=189764

Total liabilities=324809

Total equity=8035613

As per the accounting equation (**Equity + total liability=Total assets**)

9238893=457551+8781342 for December/31/2017

8360422=8035613+324809 for December/31/2016

2.3 Working capital and current ration:

2.3.1 Working capital:

The difference of current assets and current liabilities is working capital so it can be mathematically presented as:

Working capital=Current assets-Current liabilities

Working capital=720313-280068=440245 for December/31/2017

Working Capital=351135-135045=216090 for December/31/2016

Now we can measure the short financial strength of LG Company in mention years and working capital say us that how much current assets exceed current liability, increasing of working capital show that the company has more profit, sell equipment or other assets, or has a long term loan from a bank. a long term bank loan can increase current assets, but at the same time increases long term liabilities.

As from comparison of working capital for two consequence years (2017 and 2016), company's profit is more in 2017 then 2016 because $440245 > 216090$.

2.3.2 Current ration:

Current ration show us the company's liquidity or its ability to fulfill short term financial obligations and defined as flow:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

In our example current ratio is for 2017 as below:

$$\text{Current ratio} = \frac{720313}{280068} = 2.572 \quad \text{for 31/12/2017}$$

$$\text{Current ratio} = \frac{351135}{135045} = 2.6 \quad \text{for 31/12/2016}$$

From comparison of above two equations in two consequence years the financial satiation was health in 2016 then 2017 because $2.572 < 2.6$

2.4 Under billing and over billing:

2.4.1 Under billing: under billing is expressed in the balance sheet as cost and estimated earnings in excess of billing on work progress.

2.4.2 Overbilling: over billing is expressed as billing in excess of cost estimated earning on work progress.

As the company has the following project financial data for year 2017:

Contract sum=9238893

Bill to date=714845

Cost incurred to the date =218845

Estimated cost to complete project=8264496

Up to the present moment:

$$= \left[\frac{\text{cost incurred to the date}}{(\text{cost incurred to the date} + \text{estimated to complete})} \right] \times 100$$

$$\left[\frac{218845}{(218845 + 8264496)} \right] \times 100 = 2.8\%$$

Revenue to the date= (Contract sum)x(Percentage of completion)

$$= 9238893 \times 2.8\% = 256869$$

Gross profit to date=Revenue to date-cost of revenue to date

$$= 256869 - 218845 = 38024$$

Over billing=Bill to the date –Revenue to the date

$$=714845-256869=457976$$

If overbilling is a negative value, then is called under billing

over billing means that the construction company is borrowing money from the client by billing the latter of revenue more than what the company has actually done and it mean that company received more money at the early stage of work . Under billing means that the company is allowing the client to borrow money from it.

In above example difference of the bill to date and cost incurred is equal to $714845-218845=49600$ and true gross profit is 38024.

However $49600-38024=11576$ mean that 11576 is over billing

Now same calculation will be done for year 2016

Contract sum=8360422

Bill to date=614003

Cost incurred=189878

Estimated cost to complete project=8026576

Up to the present moment:

$$= \left[\frac{\text{cost incurred to the date}}{(\text{cost incurred to the date} + \text{estimated to complete})} \right] \times 100$$

$$\left[\frac{189878}{(189878 + 8026576)} \right] \times 100 = 2.3\%$$

Revenue to the date= (Contract sum) x (Percentage of completion)

$$= 8360422 \times 2.3\% = 193205$$

Gross profit to date=Revenue to date-cost of revenue to date
 =193205-189878=3327

Over billing=Bill to the date –Revenue to the date
 =614003-3327=610676

If overbilling is a negative value, then is called under billing

over billing means that the construction company is borrowing money from the client by billing the latter of revenue more then what the company has actually done and it mean that company received more money at the early stage of work . Under billing means that the company is allowing the client to borrow money from it.

In above example difference of the bill to date and cost incurred is equal to 614003-189878=424125 and true gross profit is 3327.

However 424125-3327=420798 mean that 420798 is over billing

3. Analysis

As capital work comparison LG Company has more profit in year 2017 more than year 2016 but comparison of current ratio shows us that the financial sanitation was healthy in 2016 more then 2017.

as per overbilling and under billing calculation the company was overbilling in two consequence years (2017 and 2016) it means that the company received more money at the early stage of work and means that the construction company is borrowing money from the client by billing the latter of revenue more then what the company has actually done.