UPV/EHU

OCW ”Companies Accounting”

LECTURE MATERIAL: Topic VI

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INTRODUCTION TO FINANCIAL ANALYSIS

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TOPIC VI

Aim of the Chapter:

- Introduce the student to the analysis of the financial statements, once studied the main items that complete these documents.

1. CONCEPT AND USERS OF THE FINANCIAL ANLYSIS

Is the analysis of the information obtained from the financial statements through the use of financial tools that turn this information into a useful one in order to make business`s decisions. Information obtained assesses stakeholders such as:

- Creditors: they need to diagnose the financial situation of the firm to determine the probability of debt distress with a view to grant a loan. The company`s statements must show enough liquidity.
- Competitors: they use other companies` financial statements with the purpose to improve their competitiveness by comparing their business practices and strategies.
- Companies` Management: they need information supported by the financial analysis to take fundamental internal and external decisions that affect the company`s business.
- Customers: use financial statements of their suppliers to study both the quality and the guaranty of the supplying of goods.
- Employees: they are concerned by the situation of the company's profitability, its remuneration policy, business` integrity and job security.
- Government: is interested in the company`s tax return and the different sectorial development
- Potential Investors: they use this information to analyze the viability and profitability of the company with the view to invest or not.
- Shareholders: they use this information to analyze the viability and profitability of the company with the view to maintain their investments or not.
- Labor unions: they are interested in their members` protection.
- Suppliers: they analyze the companies` liquidity and ability to pay on time

This information is analyzed using specific tools to compare information from different companies, from different years in the same company or relating different parts of the balance sheet and income statement.

This is only part of the business analysis. It is a partial analysis. When must keep in mind that financial statements have its limitations. They report information that follows accounting principles. As a consequence many assets are not reflected in the balance, being sometimes the most valuable owned by the Company (such as brand names, situation, reputation…). The data used is obtained from past events and subject to estimations. It is also considerable the industry in which the company operates, and that is why the analysis should compare companies of the same industry.

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2. METHODS OF FINANCIAL ANALIYSIS

The three **types of analysis** are: horizontal, vertical and ratio analysis.

- Horizontal Analysis: Its objective is to compare financial statements over time, it gives information concerning business`s facts trends.
- Vertical Analysis: its objective is to show the items of a statement as a percentage of the total assets, liabilities, net income, gross sales...etc...

(Amount of the item/Total Base)x100

- Ratio Analysis: is the most common tool of analysis. It consists in the relationship between two items of the same or different financial statements.

  There are different ratio`s classification:

  - Liquidity Ratios
  - Profitability Ratios
  - Financing Ratios

3. HORIZONTAL ANALYSIS

It is also known as trend analysis. It gives information about the trend followed by the items in the financial statements, over the periods analyzed. Information is shown both in an absolute or relative way, so we can identify the items that have suffered a greater variation.

- Absolute change = € item studied in year analyzed-€ item studied base year
- Relative change = $\frac{\text{€ item studied in year analyzed-€ item studied base year}}{\text{€ Item studied base year}}$

The purpose of this perspective of study is to find and deep in the reasons of any item that stands out from others and the comparison of numbers to the expected ones, let`s say a sudden decrease in sales or an excess in a particular expense and take the correspondent actions to solve these situations.

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Ex:

ASSETS	2011	2010	ABSOLUT VARIATION*	RELATIVE VARIATION**
NC ASSET	**540,000**	**403,600**	136,400	33.79%
Intangible Assets				
Goodwill	100,000			
Property, Plant & Equipment	**340,000**	**268,600**		
Buildings	225,000	230,000		
Furniture	50,000	24,000		
Vehicles	95,000	45,000		
Acc.depreciation	-30,000	-30,400		
NC Investments	**100,000**	**64,000**		
NC Inv.Equity instruments	100,000	135,000		
C ASSETS	**89,000**	**64,000**		
Inventories				
Merchandises	39,000	25,000		
Receivables				
Trade Receivables	40,000	32,000		
Cash				
Banks	10,000	7,000		
TOTAL ASSETS	**629,000**	**467,600**		
OE & LIABILITIES				
OE	**398,800**	**198,000**		
Share Capital	325,000	200,000		
Uncalled Capital	-60,000	-60,000		
Legal Reserve	26,000	23,400		
Voluntary Reserve	40,000	38,000		
Res. Goodwill	5,000			
Own Shares	-30,000	-29,400		
P/L period	92,800	26,000		
NC.LIABILITIES	**125,000**	**177,000**		
Provision for taxes	15,000			
NC Debt financial institutions	110,000	177,000		
C.LIABILITIES	**105,200**	**92,600**		
C. Debts financial institutions	70,200	78,000		
Suppliers	35,000	14,600		
TOTAL OE&LIABILITIES	**629,000**	**467,600**		

**136,400 = 540,000-403,600*

*** 33.80%=136,400/403,600*

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4. VERTICAL ANALYSIS

It is also called common-size analysis, because it shows the items of a financial statement as a percentage of the total amount of the document or of a particular item. It shows which items are relevant and permits the comparison of items among companies of different sizes, and with the same industry`s average percentages, with the leading company or its competitors.

- (Amount of the item/Total Base)x100

ASSETS	2011	% VERTICAL	E&LIABILITIES	2011	% VERTICAL
NC ASSET	**540,000**	**85%**	**OE**	**398,800**	**63.40%**
Intangible Assets			Share Capital	325,000	
Goodwill	100,000		Uncalled Capital	-60,000	
Property, Plant & Equipment	**340,000**		Legal Reserve	26,000	
Buildings	225,000		Voluntary Reserve	40,000	
Furniture	50,000		Res. Goodwill	5,000	
Vehicles	95,000		Own Shares	-30,000	
Acc.depreciation	-30,000		P/L period	92,800	
NC Investments	**100,000**		**NC.LIABILITIES**	**125,000**	
NC Inv.Equity instruments	100,000		Provision for taxes	15,000	
C ASSETS	**89,000**		NC Debt financial institutions	110,000	
Inventories			**C.LIABILITIES**	**105,200**	
Merchandises	39,000		C. Debts financial institutions	70,200	
Receivables			Suppliers	35,000	
Trade Receivables	40,000				
Cash					
Banks	10,000				
TOTAL ASSETS	**629,000**		**TOTAL E&LIABILITIES**	**629,000**	

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5. RATIO ANALYSIS

It relates two items of the same or different financial statements.

This method can be useful in two ways. It offers:

- **An intra-company comparison**

Through a dynamic analysis the company can compare the current ratio with the previous` periods ones. This way the users will observe the evolution and changes occurred during the studied periods.

Through a static analysis the Company observes the ratios at a particular date.

- **An inter-company comparison**

Is the comparison of the Company`s ratios with similar companies or with the average of the same industry in order to know the situation between competitors.

5.1. **Liquidity**: is the capacity the company has to meet its short term obligations with its short term assets.

- Current Ratio* (ability of the Company to satisfy current liabilities with current assets):
  Current Ratio= Current Assets/Current Liabilities
  Is recommended a value around (1.5, 2)
- Quick Ratio (ability of the Company to satisfy current liabilities with the most liquid assets):
  Quick Ratio = Current Assets-Inventories/Current Liabilities
  Is recommended a value between (0.8, 1)
- Cash Ratio (ability to satisfy current liabilities with cash and equivalents)
  Cash Ratio = Cash/Current Liabilities
  Is recommended a value around (0.1, 0.2). When is > 0, 2, it is considered to be an excess in cash which can affect the profitability of the business.

*Is related to the Working Capital, concept that measures the liquidity of the Company as follows:

- Current Assets-Current Liabilities
- (Equity + Non-current liabilities)-Non-current assets.

A company with a Current Ratio = 1, has no working capital.

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The ideal "working capital" is the one that maintains the financial balance of the company for the lowest cost. Is recommended a positive amount although it will depend on the industry where the company works.

5.2. Financing/ Solvency: ability to pay debts to creditors. It measures the amount of debt of the Company.

- Total debt to assets Ratio or dependence ratio(measures proportion of assets financed with both long term and short term debt)
  Total debt to assets Ratio= Total Liabilities/Total Assets
  Is recommended a value around 1/2 (for every € the Company owes, it has 2€ invested in Assets).
- Long-term debt to assets Ratio
  Long-term debt to assets Ratio = Long term debts/Total Assets
- Short-term debt to assets Ratio
  Short-term debt to assets Ratio = Short term debts/Total
- Debt to Equity Ratio or financial dependence: It shows the financial leverage of the company.
  Debt to Equity Ratio = Total liabilities/Total Equity
- Equity Ratio or Financial Autonomy
  Equity Ratio= Total Equity/Total Assets
  Is recommended a value around: 0.5
  It complements the dependence ratio

5.3. Profitability: ability the investment resources have to generate income. These ratios compare the Income of the period with different items related to the resources invested in the business. Depending on the profit and the financial resources, we can distinguish between:

- Balance Sheet Items:

- Economic Profitability Company`s profitability.= P/L Period/Total Assets
- Financing Profitability = P/L Period/ Owner´s Equity

- Income Statement Items:

- Gross Profit Margin ,Operating Profit Margin = Operating Income(EBIDTA)/Sales
- Net Profit Margin = Net Profit/Sales

There is another ratio that shows the profitability for the shareholders:

Price-Earnings Ratio(PER) = Net Income after taxes/average stocks outstanding

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