Universität Zürich[UZH]

Department of Business Administration - Chair for Entrepreneurship

A Primer in Entrepreneurship

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Universität Zürich

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Content


decision to become an entrepreneur
developing successful business ideas
moving from an idea to an entrepreneurial firm
managing and growing an entrepreneurial firm
recognizing opportunities and generating ideas
feasibility analysis
writing a business plan
industry and competitor analysis
developing an effective business model
preparing the proper ethical and legal foundation
assessing a new venture's financial strength and viability
building a new venture team
getting financing or funding
unique marketing issues
intellectual Property
challenges of growth
strategies for firm growth
franchising
today

A Primer in Entrepreneurship

Part III Moving from an Idea to an Entrepreneurial Firm

Lecture 8
Assessing the Financial Strength and Viability of New Ventures

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Agenda

Questions

? What are the functions of the financial management of a firm and what are its main financial objectives ?

? How are historical financial statements, forecasts and pro forma financial statement linked to each other ?

? What exactly are historical financial statements, forecasts and pro forma financial statements ? What is a ratio analysis used for ?

...to be answered in today's lecture.

1 Introduction to Financial Management

Financial management deals with two things: raising money and managing a company's finances in a way that achieves the highest rate of return.

A properly-managed firm stays on top of these questions through the tools and techniques that are discussed in this chapter.

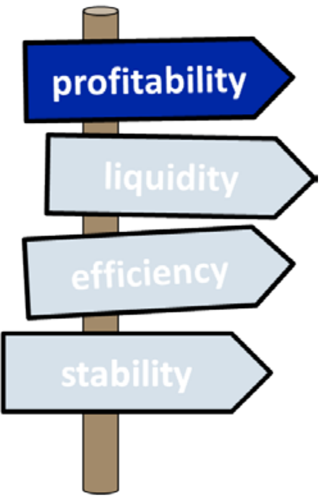
- How much cash do we have on hand?
- Do we have enough cash to meet our short-term obligations?
- How efficiently are we utilizing our assets?
- How do our growth and net profits compare to those of our industry peers?
- Where will the funds we need for capital improvements come from?
- Are there ways we can partner with other firms to share risk and reduce the amount of cash we need?
- Overall, are we in good shape financially?

1.1 Financial Objectives of A Firm

Most entrepreneurial firms have four primary financial objectives.

This chapter focuses on how a company manages its finances in an effort to increase its financial strength and earn the highest rate of return.
The process of raising money is covered in Ch.10.

1.1 Financial Objectives of A Firm



Profitability is the ability to earn a profit.

Many start-ups are not profitable during their first one to three years while they are training employees and building their brands.

However, a firm must become profitable to remain viable and provide a return to its owners.

share of firms that reached profitability 99-02

Source: Marmet (2006)

	total	manufacturing		construction	service	
		total	high tech		total	BRS
2000 survey (N=1625)						
1999	71.7	59.9	70.3	76.2	72.4	81.4
2003 survey (N=945)						
1999	75.6	63.5	75.0	78.1	76.5	84.6
2000	77.7	75.9	80.8	85.8	77.0	81.0
2001	79.8	83.5	79.2	80.5	79.4	82.2
2002	77.6	74.9	72.5	77.3	77.9	78.6
always profits	55.7	53.2	59.2	58.8	55.6	62.5

1.1 Financial Objectives of A Firm

Liquidity is the ability to meet its short-term financial obligations.

Even if a firm is profitable, it is often a challenge to keep enough money in the bank to meet its routine obligations in a timely manner.

From The Times

March 24, 2008

How to solve a liquidity problem

"Don't touch it," snapped a broad-shouldered warehouseman as The Times reached for the celebrated burgundy. "If you dropped it, the insurance wouldn't pay." His nervousness was understandable, for this is the first time in history that a French pawnbroker has accepted wine as a security against loans for its customers.

Under the rules at Crédit Municipal, which is seen in France as a public service far removed from the Dickensian image of a British pawnshop, customers can take out a 12-month loan equivalent to half the value of the objects they leave.

Source: http://www.timesonline.co.uk/tol/life_and_style/food_and_drink/wine/article3607843.ece

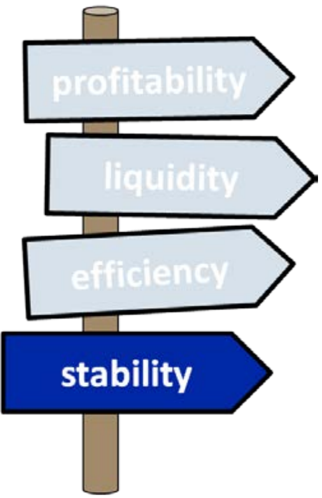
1.1 Financial Objectives of A Firm

Efficiency describes how productively a firm utilizes its assets relative to its revenue and its profits.

Southwest Airlines, for example, uses its assets very productively.

Its turnaround time, or the time its airplanes sit on the ground while they are being unloaded and reloaded, is the lowest in the airline industry.

1.1 Financial Objectives of A Firm



Stability describes the strength and vigor of the firm's overall financial posture.

For a firm to be stable, it must not only earn a profit and remain liquid but also keep its debt in check.

1.2 The Process of Financial Management

Many experienced entrepreneurs stress the importance of keeping on top of the financial management of the firm.

In the competitive environment in which most firms exist, it's simply not good enough to shoot from the hip when making financial decisions.

1

preparation of historic and financial statements

- Income statement
- Balance sheet
- Statement of cash flows

2

preparation of forecasts

- Income
- Expenses
- Capital expenditures

3

preparation of Pro Forma Financial Statements

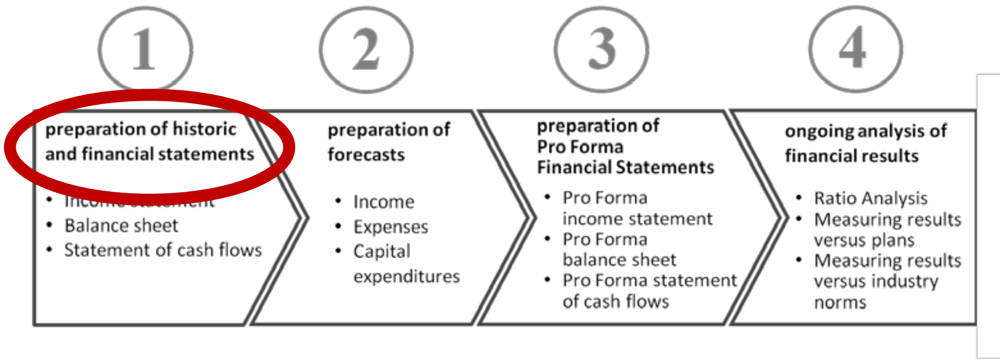
- Pro Forma income statement
- Pro Forma balance sheet
- Pro Forma statement of cash flows

4

ongoing analysis of financial results

- Ratio Analysis
- Measuring results versus plans
- Measuring results versus industry norms

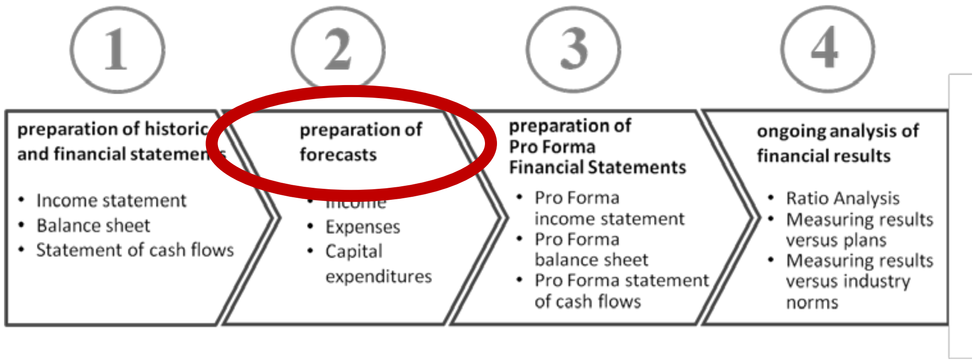
1.2 The Process of Financial Management



Financial Statement is a written report that quantitatively **describes a firm's financial health**. The income statement, the balance sheet, and the statement of cash flows are the financial statements entrepreneurs use most commonly. In start-ups, financial statements are typically scrutinized closely to monitor the financial progress of the firm.

Historical Financial Statements reflect **past performanc**e and are usually prepared on a quarterly and annual basis.

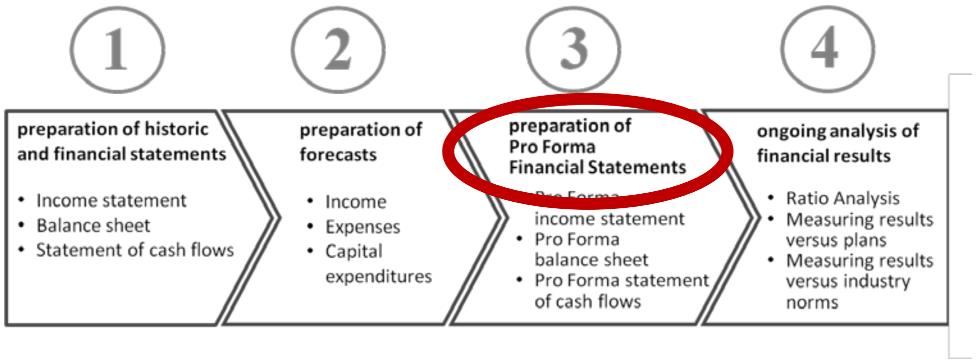
1.2 The Process of Financial Management



Forecasts are an **estimate of a firm's future income and expenses**, based on its past performance, its current circumstances, and its future plans.
New ventures typically base their forecasts on an estimate of sales and then on industry averages or the experiences of similar start-ups regarding the cost of goods sold and other expenses.

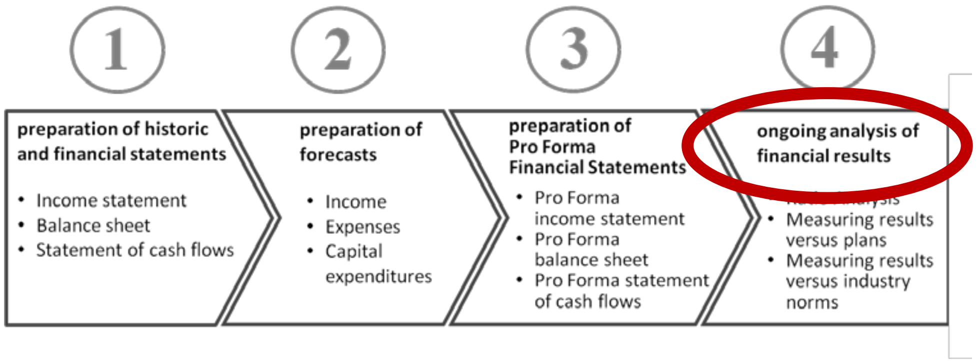
Budgets are **itemized forecasts** of a company's income, expenses, and capital needs and are also an important tool for financial planning and control.

1.2 The Process of Financial Management



Pro Forma Financial Statements are **projections for future periods** based on forecasts and are typically completed for two to three years in the future.

1.2 The Process of Financial Management



Financial Ratios depict **relationships between items on a firm's financial statements** and are used to discern whether a firm is meeting its financial objectives and how it stacks up against its industry peers.

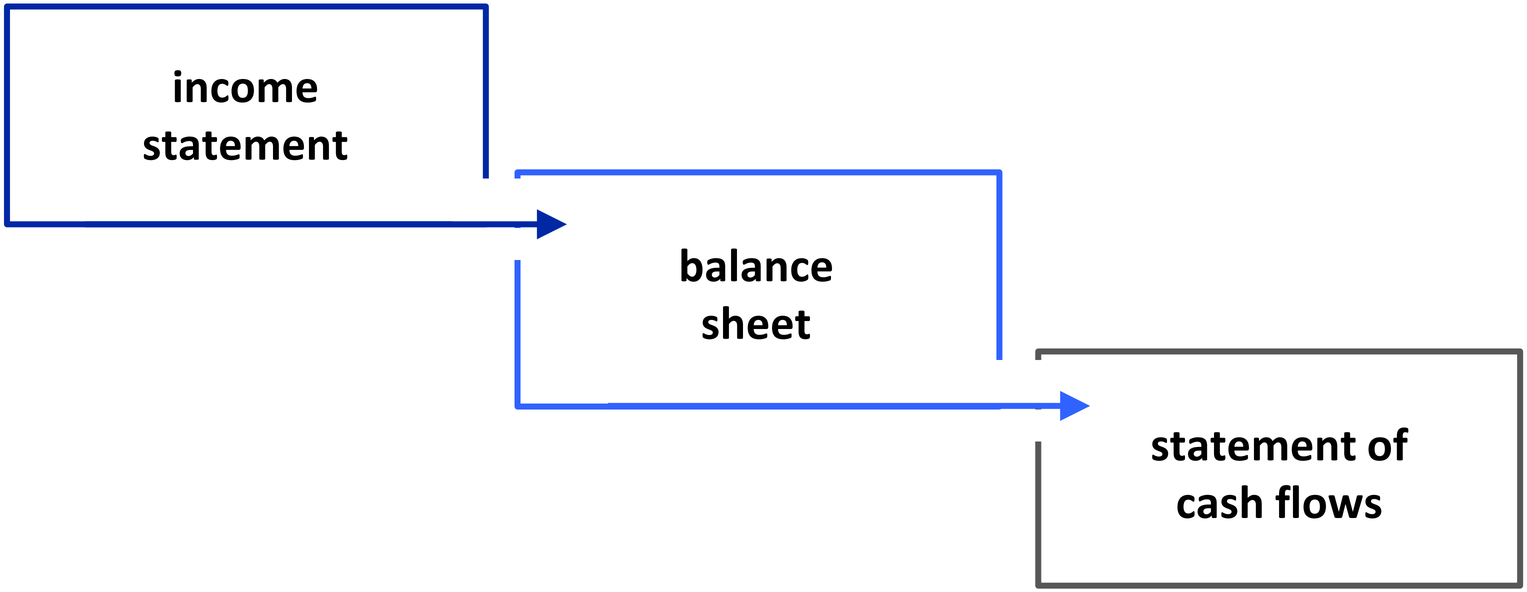
2 Financial Statements and Forecasts

To assess whether its financial objectives are being met, firms rely heavily on analysis of financial statements, forecasts, and budgets.

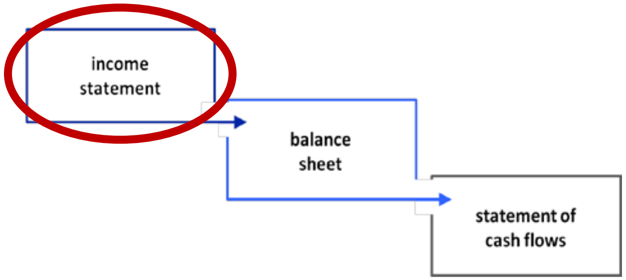
2.1 Historical Financial Statements

Historical financial statements include the income statement, the balance sheet, and the statement of cash flows.

The statements are usually prepared in this order, because information flows logically from one to the next.



2.1 Historical Financial Statements



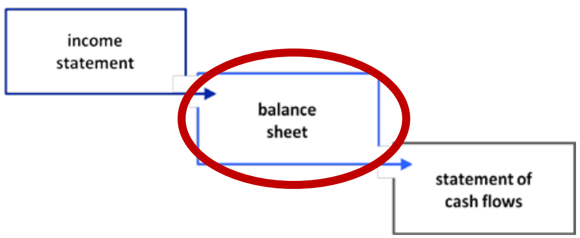
The <u>income statement</u> reflects the results of the operations of a firm over a specified period of time.

It records all the revenues and expenses for the given period and shows whether the firm is making a profit or is experiencing a loss.

When evaluating an income statement these three number receive the most attention:

1. **Net sales** consists of total sales minus allowances for returned goods and discounts.
2. **Cost of sales** includes all the direct costs associated with producing or delivering a product or service, including the material costs and direct labor.
3. **Operating expenses** include marketing, administrative costs, and other expenses not directly related to producing a product or service.

2.1 Historical Financial Statements



Unlike the income statement, which covers a specified period of time, a <u>balance sheet</u> is a snapshot of a company's assets, liabilities, and owners' equity at a specific point in time.

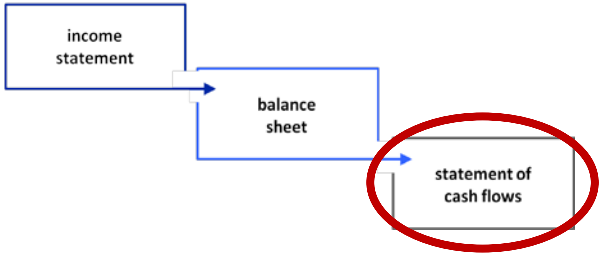
assets

- **Current assets**: cash plus items that are readily convertible to cash (i.e. accounts receivable, marketable securities, inventories)
- **Fixed assets**: assets used over a longer time frame (i.e. real estate, buildings, equipment, and furniture)
- **Other assets**: miscellaneous assets, including accumulated goodwill.

liabilities

- **Current liabilities**: obligations that are payable within a year (accounts payable, accrued expenses, the current portion of long-term debt)
- **Long-term liabilities**: notes or loans that are repayable beyond one year (liabilities associated with purchasing real estate, buildings, and equipment)
- **Owners' equity**: equity invested in the business by its owners plus the accumulated earnings retained by the business after paying dividends.

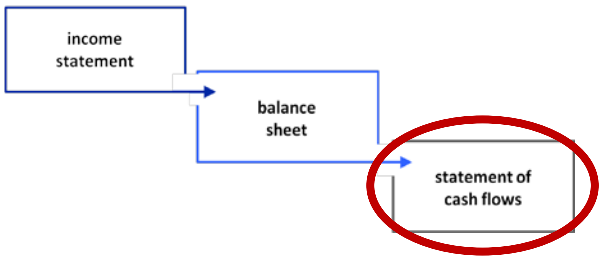
2.1 Historical Financial Statements



The statement of cash flows summarizes the changes in a firm's cash position for a specified period of time and details why the changes occurred.

It is similar to a month-end bank statement. It reveals how much cash is on hand at the end of the month as well as how the cash was acquired and spent during the month.

2.1 Historical Financial Statements



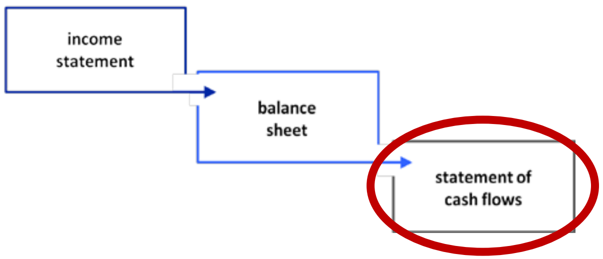
The <u>statement of cash flows</u> is divided into three separate activities from which a firm obtains and uses cash : operating activities, investing activities, and financing activities.

operating activities

Operating activities include net income (or loss), depreciation, and changes in current assets and current liabilities other than cash and short-term debt.

A firm's net income, taken from the income statement, is the first line on the corresponding period's cash flow statement

2.1 Historical Financial Statements

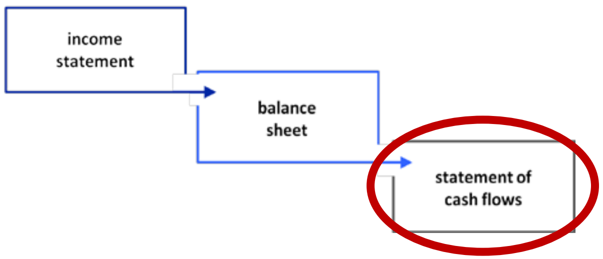


The <u>statement of cash flows</u> is divided into three separate activities from which a firm obtains and uses cash : operating activities, investing activities, and financing activities.

investing activities

Investing activities include the purchase, sale, or investment in fixed assets, such as real estate, equipment, and buildings.

2.1 Historical Financial Statements

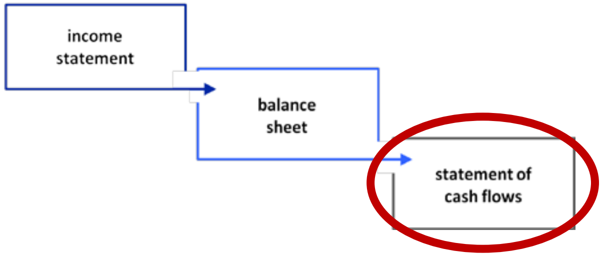


The <u>statement of cash flows</u> is divided into three separate activities from which a firm obtains and uses cash : operating activities, investing activities, and financing activities.

financing activities

Financing activities include cash raised during the period by borrowing money or selling stock and/or cash used during the period by paying dividends, buying back outstanding debt, or buying back outstanding bonds.

2.1 Historical Financial Statements



As a management tool, the <u>statement of cash flows</u> is intended to provide perspective on the following questions:

? Is the firm generating excess cash that could be used to pay down debt or returned to stockholders in the form of dividends?

? Is the firm generating enough cash to fund its investments from earnings, or is it relying on lenders or investors?

? Is the firm generating sufficient cash to pay down its short-term liabilities, or are its short-term liabilities increasing as the results of an insufficient amount of cash?

2.1 Historical Financial Statements – An Example

New Venture Fitness Drinks, Inc.

To illustrate how financial statements are prepared, we use New Venture Fitness Drinks, the fictitious sports drink company.

- New Venture Fitness Drinks has been in business for five years.
- Targeting sports enthusiasts, the company sells a line of nutritional fitness drinks.
- It opened a single location in 2003, added a second location in 2006, and plans to add a third in 2007.
- The company's strategy is to place small restaurants, similar to smoothie restaurants, near large outdoor sports complexes.
- The company is profitable and is growing at a rate of 25% per year.

2.1 Historical Financial Statements – An Example

Consolidated Income Statement for New Venture Fitness Drinks, Inc.

(all data in dollars)	December 31, 2006	December 31, 2005	December 31, 2004
Net sales	586,600	463,100	368,900
Cost of sales	268,900	225,500	201,500
Gross profit	317,700	237,600	167,400
Operating expenses			
Selling, general, and administrative expense	117,800	104,700	90,200
Depreciation	13,500	5,900	5,100
Operating income	186,400	127,000	72,100
Other income			
Interest income	1,900	800	1,100
Interest expense	(15,000)	(6,900)	(6,400)
Other income (expense), net	10,900	(1,300)	1,200
Income before income taxes	184,200	119,600	68,000
Income tax expense	53,200	36,600	18,000
Net income	131,000	83,000	50,000
Earnings per share	1.31	0.83	0.50

Consolidated Balance Sheet for New Venture Fitness Drinks, Inc.

Assets	December 31, 2006	December 31, 2005	December 31, 2004
Current assets			
Cash and cash equivalents	63,800	54,600	56,500
Accounts receivable, less allowance for doubtful accounts	39,600	48,900	50,200
Inventories	19,200	20,400	21,400
Total Current Assets	122,600	123,900	128,100
Property, plant, and equipment			
Land	260,000	160,000	160,000
Buildings and equipment	412,000	261,500	149,000
Total property, plant, and equipment	672,000	421,500	309,000
Less: accumulated depreciation	65,000	51,500	45,600
Net property, plant and equipment	607,000	370,000	263,400
Total Assets	729,600	493,900	391,500
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable	30,200	46,900	50,400
Accrued expenses	9,900	8,000	4,100
Total current liabilities	40,100	54,900	54,500
Long-term liabilities			
Long-term debt	249,500	130,000	111,000
Long-term liabilities	249,500	130,000	111,000
Total liabilities	289,600	184,900	165,500
Shareholders' equity			
Common stock (100,000 shares)	10,000	10,000	10,000
Retained earnings	430,000	299,000	216,000
Total shareholders' equity	440,000	309,000	226,000
Total liabilities and shareholders' equity	729,600	493,900	391,500

2.1 Historical Financial Statements – An Example

Consolidated Statement of Cash Flows for New Venture Fitness Drinks, Inc.

	December 31, 2006	December 31, 2005
Cash flows from operating activities		
Net income	131,000	83,000
Additions (sources of cash)		
Depreciation	13,500	5,900
Decreases in accounts receivable	9,300	1,300
Increase in accrued expenses	1,900	3,900
Decrease in inventory	1,200	1,000
Subtractions (uses of cash)		
Decrease in accounts payable	(16,700)	(3,500)
Total adjustments	9,200	8,600
Net cash provided by operating activities	140,200	91,600
Cash flows from investing activities		
Purchase of building and equipment	(250,500)	(112,500)
Net cash flows provided by investing activities	(250,500)	(112,500)
Cash flows from financing activities		
Proceeds from increase in long-term debt	119,500	19,000
Net cash flows provided by financing activities		19,000
Increase in cash	9,200	(1,900)
Cash and cash equivalents at the begisnning of year	54,600	56,500
Cash and cash equivalents at the end of each year	63,800	54,600

2.1 Historical Financial Statements

Ratio analysis
is the most practical way to interpret or make sense of a firm's historical financial statements.

Moreover, ratios provide a starting point for forecasting the firm's financial performance and capabilities for the future.

Comparing its financial results to industry norms
helps a firm determine how it stacks up against competitors and if there are financial "red flags" requiring attention.

This type of comparison works best for firms that are of similar size, so the results should be interpreted with caution by new firms.

2.1 Historical Financial Statements
Ratio Analysis – An Example

Ratio Analysis for New Venture Fitness Drinks, Inc.

Ratio	Formula	2006	2005	2004
Profitability ratios: associate the amount of income earned with the resources used to generate it				
Return on assets	ROA = net income/average total assets[a]	21.4%	18.7%	14.7%
Return on equity	ROE = net income/average shareholders' equity[b]	35.0%	31.0%	24.9%
Profit margin	Profit margin = net income/net sales	22.3%	17.9%	13.6%
Liquidity ratios: measures the extent to which a company can quickly liquidate assets to cover short-term liabilities				
Current	Current assets/current liabilities	3.06	2.26	2.35
Quick	Quick assets/current liabilities	2.58	1.89	1.96
Overall financial stability ratio: measure the overall financial stability of a firm				
Debt	Total debt/total assets	39.7%	37.4%	42.3%
Debt to Equity	Total liabilities/owners' equity	65.8%	59.8%	73.2%

[a] Average total assets = beginning total assets + ending total assets ÷ 2.

[b] Average shareholders' equity = beginning shareholders' equity + ending shareholders' equity ÷ 2.

2.2 Forecasts

The analysis of a firm’s historical financial statement is followed by the preparation of forecasts which are predictions of a firm’s future sales, expenses, income, and capital expenditures.

The two main forecasts are

- **Sales Forecast**
- **Forecast of Cost of Sales and Other Items**

2.2 Forecasts

Sales Forecast is a projection of a firm's sales for a specified period.

A sales forecast for an existing firm is based on …

(1) its record of past sales;

(2) its current production capacity and product demand;

(3) any factors that will affect its future production capacity and product demand.

2.2 Forecasts

Once a firm has completed its sales forecast, it must forecast its cost of sales and the other items on its income statement.

1.

percent-of-sales method is a method for expressing each expense item as a percentage of sales.

Using the percent-of-sales method, the net result is that each expense item on its income statement (with the exception of those items that can be individually forecast) will grow at the same rate as sales. This approach is called the **constant ratio method of forecasting**.

2.

Once a firm completes its forecast using the percent-of-sales method, it usually goes **through its income statement on an item-by-item basis** to see if there are opportunities to make more precise forecasts.

2.2 Forecasts

A completely new firm's forecast should be proceeded in its business plan by an assumption sheet .

Completely new firms typically base their forecasts on

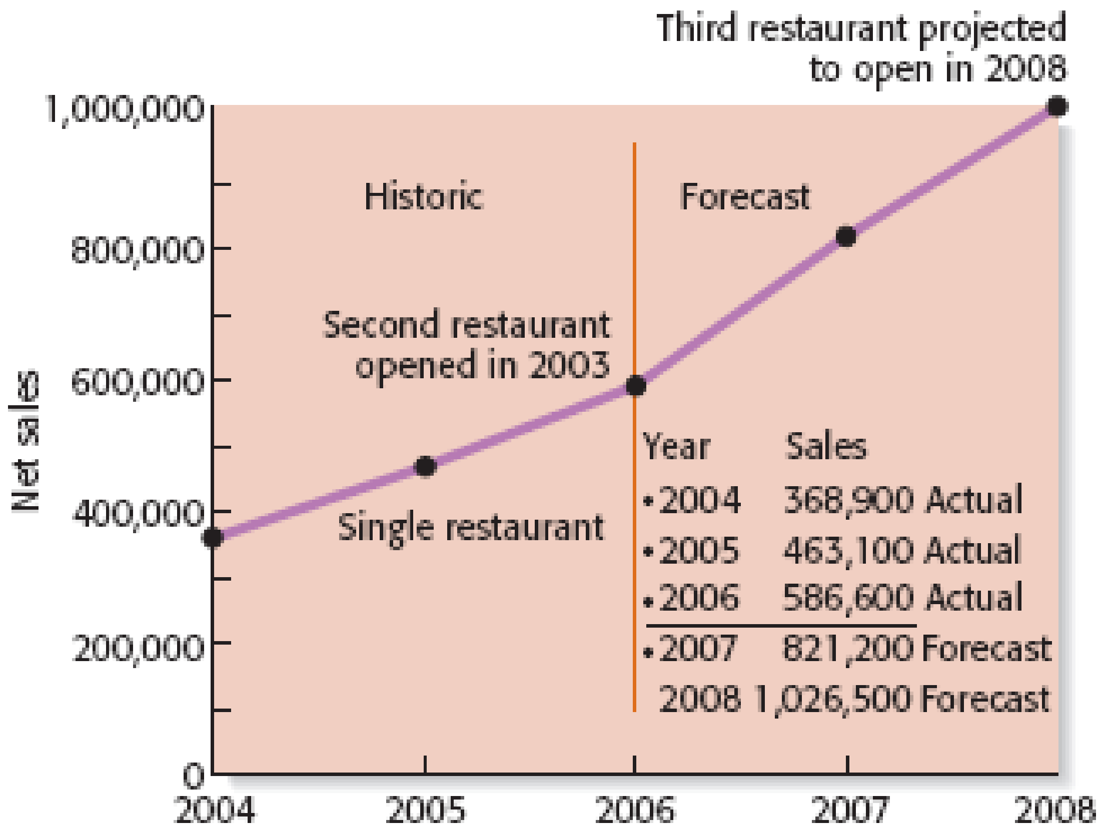
- a good-faith estimate of sales;
- industry averages (based on a percentage of sales);
- the experiences of similar start-ups for cost of goods sold and other expenses.

Consequently, they should include in the business plan an **assumption sheet** – the explanation of the sources of the numbers for the forecast and the assumptions used to generate them.

Investors typically study assumption sheets like hawks to make sure the numbers contained in the forecasts and the resulting financial projections are realistic.

2.2 Forecasts – An Example

Historical and Forecasted Annual Sales for New Venture Fitness Drinks, Inc.



3 Pro Forma Financial Statements

A firm's forecasts provide the basis for its pro forma financial statements.

A firm's pro forma financial statements are similar to its historical financial statements, except that they look forward rather than track the past.

A well-developed set of pro forma financial statements helps a firm create accurate budgets, build financial plans, and manage its finances in a proactive, rather than a reactive, manner.

3.1 Pro Forma Income Statement

Once a firm forecasts its future income and expenses, the creation of the pro forma income statement is merely a matter of plugging in the numbers.

3.2 Pro Forma Balance Sheet

The pro forma balance sheet provides a firm with a sense of how its activities will affect its ability to meet its short-term liabilities, and how its finances will evolve over time.

The pro forma balance sheet is also used to project the overall financial soundness of a company.

3.3 Pro Forma Statement of Cash Flows

The pro forma statement of cash flows shows the projected flow of cash into and out of the company during a specified period.

The most important function of the pro forma statement of cash flows is to project whether the firm will have sufficient cash to meet its needs.

3.4 Ratio Analysis

The same financial ratios used to evaluate a firm's historical financial statements should be used to evaluate the pro forma financial statements.

This work is completed so the firm can get a sense of how its projected financial performance compares to past performance, and how its projected activities will affect its cash position and its overall financial soundness.

Do you know the answer ?

?! What are the functions of the financial management of a firm and what are its main financial objectives ?

?! How are historical financial statements, forecasts and pro forma financial statement linked to each other ?

?! What exactly are historical financial statements, forecasts and pro forma financial statements ? What is a ratio analysis used for ?

…test yourself.

References

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Outlook


decision to become an entrepreneur
developing successful business ideas
moving from an idea to an entrepreneurial firm
managing and growing an entrepreneurial firm
recognizing opportunities and generating ideas
feasibility analysis
writing a business plan
industry and competitor analysis
developing an effective business model
preparing the proper ethical and legal foundation
assessing a new venture's financial strength and viability
building a new venture team
getting financing or funding
unique marketing issues
Intellectual Property
challenges of growth
strategies for firm growth
franchising
next week