Module 5

“Business Finance & Economics”

Contents

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Introduction

The fifth educational unit is "Business finance and economics". The entrepreneur must be able to manage the entire business including its profitability, economic standing and the all potential interdependencies.

Purpose

The purpose of this module is to define the meaning of risk management as well as to address the business risks and methods of risk management. In addition, it tries to provide a holistic aspect of the subject that refers to insurance, trying to indicate the significance of it for the firms as well as entering the readers to the meaning of a contract, its validity and the debt recovery process.

Learning Outcomes

➢ *In terms of knowledge:*

After finishing the module, the participants will know

- *basic finance and economics principles and concepts*
- *different financial statements*
- *items in financial statements*
- *basic accounting methods*
- *financial planning*

➢ *<u>In terms of skills</u>*

After finishing the module, the participants will understand

- *how to generate profits*
- *the different financial management challenges*
- *basic accounting*
- *the firm's stakeholders*
- *the firm's financial processes*
- *the firm's life cycle*

➢ *<u>In terms of competences</u>*

After finishing the module, the participants will be able to

- *choose the most appropriate business form/mode*
- *determine the profitability of your business*
- *plan for your firm's financing and investment decisions*
- *present items on financial statements*

Keywords

- ❖ Business Economics
- ❖ Financial Processes
- ❖ Accounting
- ❖ Stakeholders
- ❖ Income
- ❖ Balance Sheet

5.1. Basics of business economics

“A firm’s financial standing should be based on profitable activities; the firm’s goal should be to generate income and attain long-term profitability”. A firm can ensure its solvency through careful planning and the setting of goals. Clear planning can guide an entrepreneur, inform the firm about how to achieve its objectives and keep track of the firm’s short and long-term profitability. Running a business can be seen as an activity that depends on various stakeholders. According to the input-output theory, the firm’s activities can be looked at as a financial or real process.

Regarding the input-output theory, “an economic system can be described as a process in which various stakeholders affect each other through the input-output concept. Individuals, firms and other organizations work through certain processes to achieve their respective goals. None of these stakeholders can work by itself and all are interdependent on each other’s decisions.”

5.2. The firm’s “real‟ process VS financial process

The production processes that occur within the firm combine different inputs (for example, labour and raw materials) in order to produce an output. This output can be either a physical good or an intangible service. The firm’s “real‟ process is used to describe the firm’s activities in which physically measureable inputs are matched to the outputs produced for customers.

A firm receives financial compensation for the outputs it produces and delivers to its customers. Out of this compensation, the firm in turn pays each stakeholder for its contribution of inputs. The compensation is paid out through salaries and the invoices received from everyone from suppliers to the utility company. This is called the firm’s financial process. Furthermore, the firm compensates its outside investors and the owners through interest and dividend payments, respectively.

5.3. Basic business activities

A firm has to generate profits in order to survive. In ***the short*** run, a firm may make losses if it has enough capital reserves or liquidity to cover these losses. In ***the long*** run, however, a firm must be profitable. A firm’s profitability over any given period can be calculated through the following formula:

Revenue – costs = profit

In this formula, the revenues must be greater than the costs in order for the profit to be a positive number.

If the difference between the profit and the costs results i**n a negative number, the business is making losses**. These losses must be covered in some way. A firm may have profits from a previous year that it may need to draw on. When the previous year's profits have been exhausted, the firm cannot stay in business if it continues to make losses. In other words, a business activity must generate profits!

5.4. Today's financial management challenges

The lifecycles of products and services are becoming shorter every year, customers are becoming more demanding and the importance of delivering value for money is increasing. These customer driven needs also put pressure on the financial management of firms. The lifecycle concept should, to a certain degree, guide a firm's financial planning.

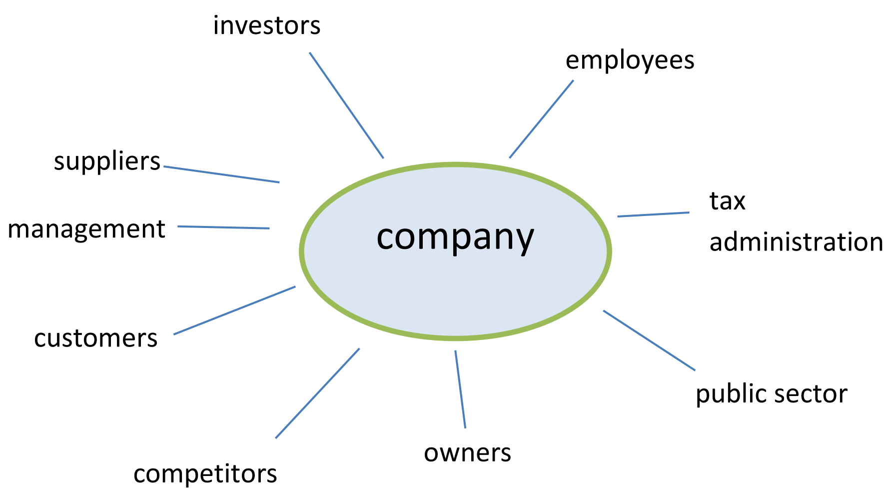
The shortening of product lifecycles has resulted in the increasing importance of product investment calculations. More emphasis is being paid to firm capital investments and there is increased demand for the information provided through accounting.

5.5. Basic accounting

The primary objectives of accounting are

- ✓ to collect data,
- ✓ categorize it and
- ✓ provide information to the firm's management regarding the firm's financial situation.

5.6. A firm's stakeholders



Entrepreneurship is part of an input-output process in which a firm's various stakeholders provide the firm with their inputs and in turn receive certain outputs. For example, the state receives taxes from the firm; the owners receive dividends and investors gain interest on the capital they have provided.

5.7. A firm's life cycle

Based on the firm life cycle concept the below figure illustrates the timing of innovations. In the first stage, before even a single sale has occurred, the firm has had an idea of what it is going to develop and produce. Launching the good or service brings about expenses resulting in a negative cash flow. It is only when the product gains a foothold in the market that the firm begins to experience positive cash flows.

The firm will generate revenues until the peak of the product's life cycle is achieved. After the peak, the product's sales diminish. Therefore, the firm must start the development of a new product before the first product reaches this point. To provide an example in line with the below figure one can take the first product to be a black and white television. Once this product has lived out its life cycle the demand and sales of the product end. The next innovative product is the colour television that may well have reached the peak of its lifecycle at the beginning of this century.

The third innovative product is the digital television which is currently only at the beginning of its product life cycle. What could be the fourth innovative product in this series? Perhaps a virtual digital television?

5.8. The income statement

The income statement is a description of the firm's running business activities and its profitability.

5.8.1. The cost based income statement according to the new accounting regulations

In order for the management to monitor the firm's profitability, it must have an idea of how the firm's revenues and expenses typically behave.

INCOME STATEMENT
Turnover
Changes in inventories
Production for personal use
Other business revenues
Materials and services
    Materials and supplies
    External services

Personnel expenses
    Salaries and compensation
    Other personnel expenses and benefits
Depreciation
    Depreciation according to plan
    Revaluation of fixed assets
    Exceptional revaluation of inventories
Other operating costs
    BUSINESS PROFIT (LOSS)
    Financial yields and expenses
PROFIT (LOSS) BEFORE INCIDENTAL EXPENSES
Incidental expenses
    Incidental revenues
    Incidental expenses
PROFIT (LOSS) BEFORE TAXES AND AMORTIZATION
    Change in depreciation
    Change in voluntary reserves
Income tax
Other direct taxes
PROFIT (LOSS) FOR THE FISCAL PERIOD

5.8.2. The connection between the income statement and the balance sheet

In essence, the income statement is the difference between revenues and expenses. The result of this is then transferred into the balance sheet to describe the firm's financial position. The profit in the income statement and balance sheet are the same for every financial period. These figures must match in accordance with the reliability demands set out by the tax administration. When reporting the income statement and the balance sheet the firm must also provide information about previous years so that reliable comparisons can be made across fiscal periods. If the reporting of these figures changes significantly then the basis for comparison must be maintained and adjusted accordingly.

5.8.3. Presenting items in an income statement

According to accounting principles and regulations items listed in the income statement can be combined under the same category if they do not affect the income statement's accurate description of the firm's financial position and if they clarify the presentation of the information. A basic rule of thumb can be followed in that items may be combined if the income statement becomes over a page in length. It is clearer to present the items as a combined group and provide the details in the notes to the income statement.

Let's look at an example of an income statement:

First of all, we have made an agreement with the property owner that the monthly rent will be 300 Euros.

This sum is to be paid no matter what the quantity of goods produced by the firm.

Let us continue with the example. Let us assume that we have one employee who receives 260 Euros in salary every month. The salary is fixed and does not change with respect to the amount of goods produced. Let us assume that in this example that changing salaries also exist. Our loyal employee works in the office for 60 Euros a month and produces goods for 200 Euros a month. Other fixed expenses include office materials and telephone expenses which total 73 Euros altogether.

Let us assume that the sale price of the produced good is 34 Euros per unit. We will assume that we will sell 38 units. We receive 1292 Euros in income from the sale. Let us record all of the above into the income statement.

Income statement 01.01.-31.12.20X1

Turnover		1292
Production		570
Sales margin		722
Fixed expenses		
	Salaries	260
	Rent	300
	Other fixed costs	73
Operating margin		89 (6,9%)
Taxes		26
Net profit		63

5.9. Balance sheet

> "The balance sheet describes the firm's financial position at a given point in time, for example at the end of a financial period. The balance sheet states the firm's assets relative to its equity and liabilities."

The balance sheet also states the financial period's profit or loss. The balance sheet also cumulatively includes information about past financial periods. The income statement is a continuous description of the firm's processes while the balance sheet is a static report.

5.9.1. Presenting a balance sheet

A balance sheet is an accounting calculation that is divided into debits and credits columns. The debit side of the balance sheet states the firm's obligations listed under the debit items. The balance sheets bottom line describes the entire firm's assets relative to the firm's equity and liabilities. In order to ensure good accounting practices a firm may utilize the model balance sheet provided by the Accountancy Board.

5.9.2. Items in the balance sheet

The items in the balance sheet are divided into two main categories, fixed and current assets. The difference is dependent on the use of the assets in terms of the timing of their use rather than the nature of the use. Similarly, on the liabilities side, items are divided into two main groups, equity and liabilities. This division, however, is derived not on the timing of the use of the capital but the nature of its use.

Assets Fixed assets -Intangible assets -Tangible assets -Investments Current assets -Inventories -Accounts receivable -Financial securities -Cash and blank balances	Liabilities and stockholder equity Equity - Shareholder equity - Capital reserve - Revaluation reserve - Other reserves - Profit from previous financial periods Mandatory reserves Liabilities -Long-term liabilities -Short-term liabilities

5.10. Balance sheet assets

5.10.1. Fixed assets

Fixed assets refer to capital and other items that generate revenue in more than one financial period. Fixed assets include tangible and intangible assets and long-term investments.

Intangible assets

Tangible assets

Investments

✓ Intangible assets

Intangible assets are, for example, founding costs, research expenses, development costs, intangible rights, business value and other long-term expenses and prepaid expenses. Intangible assets are not required to be activated as assets but can be directly expensed during the financial period.

✓ Tangible assets

Tangible assets refer to plant, property and equipment, other tangible assets as well as incomplete procurements. That value of the asset that is transferred, after depreciation, to the next financial period is recorded into the balance sheet. This remaining asset value is called the residue of initial outlay.

Calculation of acquisition costs

Purchase price
- Cash discount and other discounts
- Value added tax
- Other correction items
+ Installation, cargo, transportation, etc. expenses
+ Own preparation expenses, basic improvements
+ Direct fixed costs
Acquisition cost

Calculation of the residue of initial outlays

Residue of initial outlay at the beginning of the fiscal period
+ assets activated during the fiscal period (acquisition cost)
- the transfer price received during the tax year
- other assets
Residue of initial outlay at the end of the fiscal period

✓ Investments

Investments are a fixed asset balance sheet item. Investments include owned shares, and accounts receivable of firms within the same consortium or other shares of firms otherwise in under the firm's ownership control, as well as other shares and receivables.

Investments are seen as fixed assets if they are to be held over long-term positions. If the investment changes unforeseeably into a short-term investment, it must be reclassified as a current asset item in the balance sheet.

5.10.2. Current assets

Current assets consist of inventories, accounts receivable, financial securities and cash and bank balances. Current assets also consist of short-term capital that has not yet generated revenue. Long-term assets refer to a period of over one year.

- **Inventories**
- **Accounts receivable**
- **Financial securities**
- **Cash and bank balances**

✓ Inventories

Inventories refer to products, primarily physical goods that are intended for sale, including raw materials and semi-finished products. Inventories are generally valued following different methods. However, one of the most often used includes that of the FIFO method, first in - first out. This means that the products that were first received in the warehouse are used first. Therefore, the products received last by the firm are also the last to be used. This method becomes relevant in situations where the price of inputs or raw materials rises.

The following factors are important in the valuation of inventories:

1. Stocks physically exist.
2. The stocks are owned by the firm.
3. The stocks are marketable and useable.
4. The stocks are properly priced.
5. The stocks are properly presented in the balance sheet, and in necessary detail.

✓ Receivables

The most common receivable items include sales, loan and other receivables, unpaid shares and accrued credits and deferred charges. Sales receivables are receivables generated by selling to customers, for example unpaid invoices. Loan receivables are short-term letters of credit extended to other firms or the owners of the firm. Other receivables can include the firm's long-term deposits and other receivables that do not fit into other categories. Accrued credits and deferred charges refer to the adjustment of expenses to the appropriate fiscal period such as in the case of insurance payments.

✓ Financial securities

Under current assets financial securities are divided into four categories, those that are shares of firm's within the same consortium, own shares, other shares and other securities. Financial securities are reported in the balance sheet at their acquisition expense.

✓ Cash and bank balances

These current assets item includes cash, the balances in the firm's coffers and bank balances. Bank balances include short and long-term deposits in bank accounts. The accounting principles regarding short term and long-term use do not apply to bank balances. Cash is valued at its nominal value. The accounting currency is the Euro

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5.11. Variable and fixed costs

"Costs can be divided into variable and fixed costs according to how they are used relative to the quantity of goods or services produced".

Variable costs	Variable costs refer to those expenses that depend on the firm's production or activity. They result in costs related to sales or production in a certain period. **EXAMPLE**: when the production of one unit costs 15 Euros and the firm produces 38 units, the variable costs total 570 Euros. When the same firm produces 52 units, the variable costs total 780 Euros.	**Variable costs include:** - raw materials and costs related to parts and semi-finished goods; - operational materials, such as fuel; - additional costs such as glues; - production salaries including employment costs; - employment costs related to production such as overtime pay; - costs related to production such as handling of goods, loading, transportation, etc. - maintenance under warranties; - energy costs; - licensing costs.
Fixed costs	Fixed costs do not depend on the amount of goods produced but are more closely related to time. The amount of fixed costs is related to capacity and is not dependent on changes in business activities. **EXAMPLE:** basic investments into buildings and plants as well as production facilities and office rents.	**Fixed costs can be divided into three groups:** 1. Employee and administrative salaries including employment costs. 2. The rents and leases of land, buildings and equipment. 3. Other fixed costs such as insurance premiums, interest payments on buildings, equipment and machines, cleaning and utility contracts and travel, representation and communication costs.

5.12. Direct and indirect costs

Costs can also be divided into direct and indirect costs depending on how the costs are incurred.

Direct costs can be matched or assigned with the product that is being produced. They are generally variable costs but certain fixed costs can also be classified as direct costs. These costs are easy to match with the goods or services that the firm produces.

Indirect costs cannot be matched with or assigned to a specific good. Indirect costs must be matched with the firm's activities through preplanned calculations. Indirect costs are predominantly fixed costs.

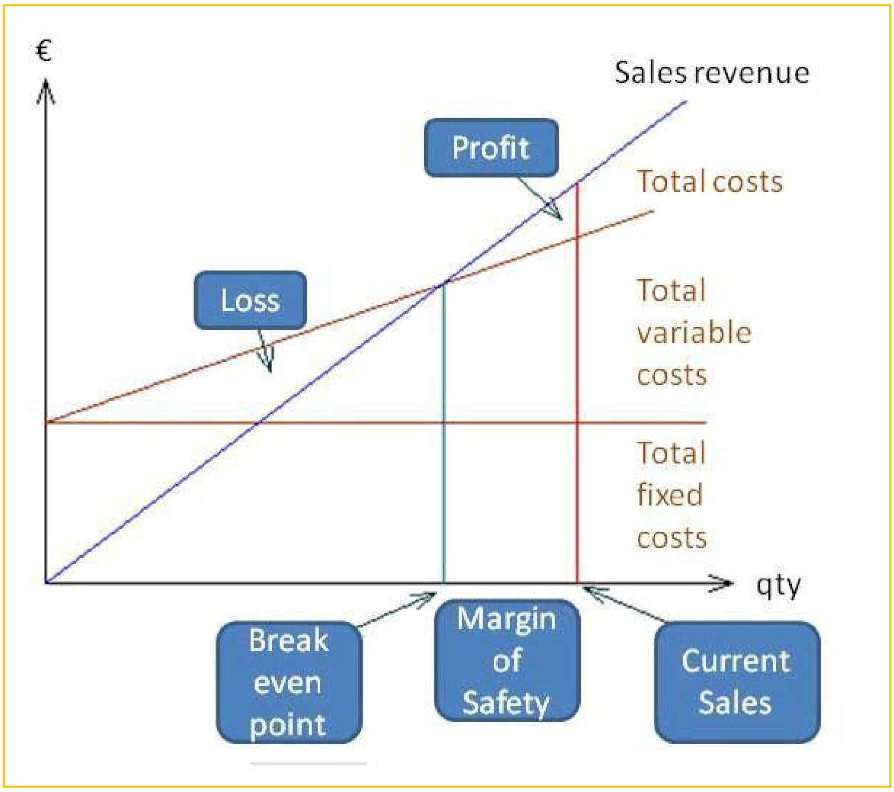
5.13. The concept of marginal revenue

A firm's profitability and the effect of measures designed to improve profitability can be monitored through the concept of marginal revenue. In order for a firm's management to monitor the firm's profitability, it must have an understanding of the firm's costs and revenues.

The marginal revenue concept is based on the division of costs into two categories, variable and fixed costs. Marginal revenues are calculated according to the following formula:

Turnover
- Variable costs
= Marginal earnings
- Fixed costs
= Operating margin

The marginal revenue figure



5.14. Main accounting principles

"According to accounting regulations, everyone that practices a business or professional activity is accountable for their activities. The requirement for accountability allows the state to control the firm's activities upon which it bases the firm's taxation".

5.14.1. Accounting principles

- Principle of continuity. Accounting acts on the assumption that the firm is in existence for the time being and that, in principle, its activities will continue forever.

- Principle of prudence. Another important accounting principle states that only those revenues and expenses that exist are recorded. In other words, they have already been realized or are about to become real. The accounting entries are then matched with the appropriate fiscal period. Expenses and revenues cannot be presented as too high or low, assets cannot be overvalued and debts undervalued.
- Principle of Full Disclosure / Materiality. The financial management must have the objective that all of the fiscal period's expenses and revenues are disclosed when preparing the financial statement. The financial statement must be comparable to not only the firm's past financial statements but also those of other firms.

5.14.2. Take care of your accounting material

An entrepreneur has to take care that the material that describes its business transactions, in other words, invoices, bills, contracts and electronic invoices, etc. are gathered carefully and stored. Receipts must be complete and storable in order to be valid for accounting purposes. Receipts must be stored for at least six years. It is important to also keep the receipts in chronological order.

5.14.3. Accrual and cash based accounting

A firm can either maintain an accrual or cash based accounting system. Accrual based accounting means that the expenses and costs are dated by the day that the product has been transferred from the seller to the buyer. In the cash based system the revenues and expenses are recorded on the date of the financial transaction. The accounting is based on the recording of daily activities into accounts. At the end of the fiscal period the accounting system must be changed into accrual based accounting even if a cash based system was used throughout the fiscal period.

5.14.4. Single and double entry recordkeeping

Those entities that are accountable must use a double-entry system of recordkeeping. This means that every record includes the source and use of the money. This means that the debit and credit accounts are the same size. Those individuals practicing a profession are entitled to use a single-entry method. Single entry recordkeeping means that revenues and expenses are recorded without specification about the source of the revenue or the details of its use. Individuals practicing a profession are entitled to use a single-entry method.

5.14.5. The use of different accounts

Account ledgers always have two sides. In basic bookkeeping, the left side of the account ledger is called the debit side while the right side is called the credit side.

Accountable entities must perform their accounting through the double-entry method, with the exception of those practicing a profession for whom the single-entry method suffices. The double-entry method means, in practice, that for each transaction at least two entries must be made. One account is debited while another account is credited.

In the below example, we have sold ice cream for €5,52. The recordkeeping will thus show that we credit the sales account and debit the cash account. Money that is entered into the cash register is always entered into debit column. Sales revenues are always recorded in the credit column.

Definition	Sales account		Cash account	
Selling ice cream		5,52	5,52	

When recording purchases and other expenses the bookkeeping is the opposite of that described above. In the following example, we have purchased ice cream for €3,89. We, therefore, debit the purchases account and debit the cash account. Money that leaves the cash register is always recorded on the credit side of the account while purchases are always recorded on the debit side.

Definition	Purchase account		Cash account	
Buying ice cream	3,89			3,89

5.14.6. Account groups

As an entrepreneur, we may purchase a bicycle, pay for it with money from the cash register, resell the product and generate sales revenue into the firm's account. Depending on the transaction, we can determine which accounts are relevant. **There are four main groups of accounts.**

- ✓ Finance accounts
- ✓ Expense accounts
- ✓ Revenue accounts
- ✓ Closing of the books accounts.

5.14.7. Finance account

The finance account is divided into two groups:

- ✓ financial assets accounts and
- ✓ capital accounts.

Financial assets accounts are, for example, the cash account, bank accounts and receivables account. Capital accounts include shareholder equity and liabilities. Liability accounts include, for example, debts and credit card accounts. The final group of accounts is the closing of the books accounts, which are then used to transfer the accounts into a financial statement and again from a financial statement into a running ledger of accounts at the beginning of the fiscal year.

5.14.8 Revenue and expense accounts

There are different sorts of expense accounts such as salary expenses, lease expenses, transportation expenses, **different costs**, etc. Examples of revenue accounts are sales revenue accounts and rental revenue accounts. There are generally fewer revenue accounts compared to expense accounts as revenues are not categorized in as much detail as expenses.

5.14.9 Closing of the books accounts

At the end of the fiscal period when the books are being closed, a firm provides a summary of its transactions. The financial, expense and revenue entries are transferred into the closing of the books accounts from where they are moved to the financial statement and balance sheet. The accounts used for closing the books are the balance sheet account and the closing account.

EXAMPLE EXRCISE USING ACCOUNT GROUPS

When a firm-s owner invests 8000 Euros in start-up capital the sum is recorded into the firm's bank account as a balance increasing transaction as well as into the shareholder equity account as a capital increasing transaction. The invested sum is available to the firm through bank withdrawals. The capital investment is described as follows: debit bank account, credit shareholder equity account €8000

Definition	Bank account		Shareholder's equity	
Capital increase	8000			8000

Let us take a different example. An entrepreneur has first invested equity into his firm. Next, the entrepreneur withdraws 5000 Euros of credit from a financial institution and deposits this amount into the firm's bank account. The transaction is described as follows: debit bank account, credit liabilities account €5000

Definition	Bank account		Shareholder's equity	
Loan increase	5000			5000

By combining the above two examples we can see that the bank account's balance following two transactions is 13000 Euros. The firm has 8000 Euros in shareholder equity and 5000 Euros of liabilities. Over the next six months, the firm pays back part of the credit to the financial institution. The loan is reduced by 2400 Euros. The transaction is described as follows:

Debit liabilities account, credit bank account €2400

Note Bank account, Shareholder equity account, Liabilities account

Note	Bank Account		Shareholder equity account		Liabilities account	
Beginning balance	1300			8000		5000
Instalment of a loan		2400			2400	
End balance		10600				2600

5.15. Investments and financing

In order to make investments a firm must have capital. In small firms, financing is generally handled through equity and liabilities. Equity refers to the assets that arise from, for example, the entrepreneur's own savings, capital investments and other firm's assets that are to be used for example, for research cooperation.

The entrepreneur, however, seldom has enough starting capital to start the business alone. This is when the firm relies on the options provided by outside financing. Liabilities refer to credit accounts, loans from private individuals, bonds and loans, government support, leases or products offered by financial institutions.

Important issues regarding the financing of a starting business (Lehtonen 1999):

Tell your financers about your business plan, especially one that is exceptional.

- ✓ At work, be an honest realist. Be an idealist on your own time and dime.
- ✓ Evaluate your company's situation, document it.
- ✓ Prepare to make alternative plans.
- ✓ Know the market, your competitors and your competitive position.
- ✓ Know what you want.
- ✓ Prepare a plan for stability.
- ✓ The financiers are always thinking about those rainy days, so should you.