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Managerial Economics

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INSTRUCTIONS TO STUDY

Managerial Economics

You have received a study package for the subject of the Management Economics which is included in the follow-up master's degree study programs of the Faculty of Metallurgy and Materials Engineering, VŠB-TU Ostrava, containing an integrated study textbook for combined study, including the study instructions.

You have received a study package for the subject of the Basics of Economics which is included in the bachelor's degree study programs of the Faculty of Metallurgy and Materials Engineering, VŠB-TU Ostrava, containing an integrated study textbook for combined study, including the study instructions.

Prerequisites

No subject is expected to be completed for the study of the course of the Managerial Economics and the Basics of Economics.

Course objectives and the outcomes of learning

The aim of the course of the "Managerial Economics" and the "Basics of Economics" is to become familiar with the concepts and relations of company economic management. The presentation focuses on how to handle the various forms of properties, on the sources of its coverage, on the investment decision-making, and on the organizational and legal forms of businesses. Students will also learn the basics of corporate management.

The "Managerial Economics" and the "Basics of Economics" courses provide basic information on the economic activities of entrepreneurial subjects with emphasis on financial management.

After studying the course, students should be able to:

Knowledge outputs:

- Students will be able to identify the basic relationships in corporate economic management.
- Students will be able to characterize the ownership and capital structure of business entities.
- Students will be able to understand the basic methods of financial analysis.
- Students will acquire a comprehensive overview of the development of company in space and time.
- Students will be able to understand the basic organizational and legal forms of businesses.

Skill outputs:

- Students will be able to analyze the basic accounting statements.
- Students will be able to use their theoretical knowledge to assess the financial situation and soundness of a company.
- Students will be able to analyze the cost and revenue items of a company.
- Students will be able to apply the principles of management in various areas of a company.

Who is the course for?

The course of the Managerial Economics is included in the follow-up master's degree study programs of the Faculty of Metallurgy and Materials Engineering, VŠB-TU Ostrava, but it can be studied by applicants from any other study program.

The course of the Basics of Economics is included in the bachelor's degree study programs of the Faculty of Metallurgy and Materials Engineering, VŠB-TU Ostrava, but it can be studied by applicants from any other study program.

The study support is divided into parts and chapters that correspond to the logical division of the studied matter, but all of them are not as comprehensive as the others. The estimated time to study a chapter can vary significantly, which is why the large chapters are further divided into numbered sub-chapters and they correspond to the structure described below.

Communication with the educator:

The semester project assignment on a given topic from the field of economics and management is assigned by the educator at the beginning of the semester. The project will be checked by the educator within 14 days from the submission, and the results will be sent to students by email via EDISON IS.

Consultations will be held with the subject guarantor or the lecturer:

- during common tutorials
- individual consultations, following an appointment made by e-mail or phone in advance

Managerial Economics course

Subject guarantor: doc. Ing. Kamila Janovská, Ph.D

Lecturer: doc. Ing. Kamila Janovská, Ph.D.

Basics of Economics course

Subject guarantor: doc. Ing. Kamila Janovská, Ph.D

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We recommend the following procedure to be used during the study of each chapter:

Study the individual chapters in the order in which they are presented. You can check the partial knowledge and information using the test questions that are listed at the end of the chapters. Use key words for better orientation in the text. The time you will need to master the whole course is very individual, because it also depends on the knowledge that you have already gained in other

courses during previous study. An estimated number of hours you will need to be able to handle the study is given at the beginning of each sub-chapter. The individual sub-chapters are prepared on the basis of valid laws and regulations by the date of - July 31, 2013. Due to frequent changes in the legal standards, authors always recommend working with current laws and regulations related to the problem.

CHAPTER STRUCTURE

Study time

The time to study the subject-matter is given at the beginning of the chapter. The number of minutes is only a guideline - it depends on the human potential of each of you.

The time necessary to study is an entirely individual issue – you often have to study again the topics that you have forgotten, you also have to refresh your knowledge from other courses of your university (and secondary school) education, without which you cannot cope with the study

Objective

At the beginning of a chapter, you will also become familiar with the objectives you should achieve after studying this chapter - specific knowledge, skills.

Presentation

The following part is the actual presentation of the study matter, the introduction of the new terms, their explanations, all accompanied by pictures, tables, solved examples, and links to animations.

Summary of the terms from the given chapter

To verify that you have fully understood and mastered the matter of the chapter, there are several theoretical questions.

Questions

To verify that you are well and fully mastered the material chapter, there are several theoretical questions.

References used

Recommended references contain commonly available publications.

Successful and enjoyable study with this textbook you wish the author of educational material.

Kamila Janovská a Šárka Vilamoá

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1 ENTREPRENEURIAL ACTIVITY AND ENTREPRENEUR

Study time: 1 hour

Objective

Once you have studied this paragraph, you will be able to:

- define the basic terms – entrepreneurial activity, entrepreneur, enterprise,
- enumerate the basic attributes of entrepreneurial aktivity,
- define the natural and legal person,
- define the register of companies,
- define the trade register.

Presentation

Entrepreneurial activity according to Act No. 513/1991 of the Coll., of The Commercial Code is a systematic activity carried out independently by an entrepreneur in his own name, on his own responsibility, with the purpose of making profit. [1]

The general characteristic of entrepreneurial activity includes [2]**:**

- Purposeful activity, initiative and creative approaches
- organization and management of transformation processes,
- practical benefits, profit, added value,
- accepting and involving the risk of failure,
- repetition, cyclical process.

The basic features of entrepreneurial activity:

- Systematic,
- independent,
- self-responsibility,
- attaining profit.

Systematic activity in the interpretation of the **Act No. 513/1991 of the Coll., of The Commercial Code** does not mean an uninterrupted activity, but one that is performed with a vision that it will be performed in the future as well. Systematic activity is therefore an activity that is not only occasional.

Independence means that the person who performs the activity decides independently about the time and place where the activity is performed, about the organization of work, and, at the same time, the person himself financially ensures the business is running, and decides on how to use

the profit arising from the activity. These attributes are not dictated to the entrepreneur by another person.

Entrepreneur undertakes his activity under his **own name** and, if he is incorporated in the Register of Companies, under the company name. Operation under his own name can be understood in such a way that all the activities related to the entrepreneurial activity are performed under the name of the entrepreneur, i.e. under the business enterprise if the entrepreneur is registered in the Register of Companies, under a name in case of a legal person that is not incorporated in the Register of Companies, or under the name and surname of the entrepreneur as a natural person.

Self-responsibility is an important feature of entrepreneurial activity and it means that an entrepreneur cannot avoid the risks and liabilities arising from the entrepreneurial activity. The entrepreneur is responsible for the breach of legal obligations associated with his entrepreneurial activity and cannot transfer this responsibility to another person.

Attaining profit is the main objective of entrepreneurial endeavour. The purpose of entrepreneurial activity is the continuous growth of the value of company, which is not possible without attaining profits. For the definition of entrepreneurial activity, it does not matter whether the profit from an entrepreneurial activity is actually achieved or not, it is sufficient that an entrepreneur wanted to attain profit, it was his intention.

Entrepreneurial activity is also defined in the **Act No. 455/1991 of the Coll., of trading** (Trade Act), as amended, in which trade is defined as a systematic activity carried out independently under person's own name, on his own responsibility with the purpose of attaining profit, and under the conditions set out by law. [3]

The legal regulation of entrepreneurial activity is defined by the following legal enactments [4]**:**

Act 513/1991 of the Coll. – Commercial Code

It regulates the position of entrepreneurs, legal forms of business, commercial and liability relations. It defines the basic terms associated with entrepreneurial activity; it regulates the key attributes of companies, by means of which an entrepreneurial activity is realized, the amount of nominal capital, the conditions of foundation, operation and dissolution of commercial companies.

Act no. 40/1964 of the Coll. – Civil Code

It is the basic legal enactment of private law. It should be emphasized that the relationship between the Civil and Commercial Code is the relationship between the general and special law, where the Civil Code has only a supporting role.

Act no. 455/1991 of the Coll. – of trading

It defines the term of trade, the conditions of trade license. It regulates the business conditions of both natives and foreigners in the Czech Republic. It defines the term of trade control and the sanctions for violations of law.

These laws can be considered as the basic legal standards, and other legislation related to entrepreneurial activity is based on them:

- Act no. 563/1991 of the Coll., of accounting,
- Act no. 586/1992 of the Coll., of income taxes,

- Act no. 593/1992 of the Coll., of reserves to determine the income tax base,
- Act no. 337/1992 of the Coll., of tax and charge administration,
- Act no. 235/2004 of the Coll., of value added tax,
- Act no. 151/1997 of the Coll., of property evaluation.

An entrepreneur, according to Act no. 513/1991 of the Coll., of the Commercial Code [1], is:

- A person registered in the Register of Companies,
- a person who runs a business on the basis of a trade license – the permit is a trade license or a trading certificate registered in the Trade Register administered by the trade authorities,
- a person who runs business under other than a trade license, under special regulations, such as lawyers, dentists, doctors, veterinarians, architects, notaries, auditors, tax advisers, or experts,
- a person who is engaged in agricultural production and is registered in the register under a special regulation.

A natural person is a person as a natural bearer of rights and duties. Only adults have full capacity to acquire rights and obligations (covenant) by legal acts, i.e. those who have reached 18 years of age (or have reached the age of 16, but got married with the permission of the court), and who also were not disabled of this capacity. Only a court is allowed to disable a natural person partly or fully of his/her legal capacity.

A legal person is an entity that is not a natural person and the Act No. 513/1991 of the Coll., of the Commercial Code gives such a person the capacity to act in legal relations on its own behalf.

Legal persons are, e.g.:

- associations of natural or legal persons (business companies, cooperative societies, associations, clubs, unions, movements, non-profit associations, etc.),
- specific associations of assets (such as foundations and endowment funds),
- local municipal authorities (regions, cities, municipalities),
- other entities as required by law (churches or religious associations, but even the state, if it is a party of civil relations and relations regulated by the Commercial Code).

The Register of Companies is a public register where information on entrepreneurs stipulated by the law are entered (the Register of Companies includes a collection of documents, which contains important documents relating to the individual subjects). Incorporation into the Register of Companies is performed by the Register Court, which reports to the Ministry of Justice. The Register of Companies is currently accessible on the Internet, and everyone can view it and make a copy or an extract from it.

The Register of Companies is accessible on the Internet, e.g. using the link: http://portal.justice.cz/Justice2/Uvod/uvod.aspx. You can search in the Register according to various parameters, e.g. by the CRN number, entity name, personal name, etc. Most legal actions related to institutions require a certified extract from the Register of Companies issued by the competent court.

The information included in the Register of Companies, e.g.:

- The firm,
- the registered office of legal persons, the place of residence and the place of business, if different than the place of residence, of natural persons,
- the line of business (activities),
- the legal form of the legal person,

- the personal identification number or the date of birth, if personal identification number has not been assigned, of a natural person,
- the company registration number (CRN), allocated to the entrepreneur by the Register Court; the necessary identification numbers are given to the Register Court by competent state administration authorities,
- the name and place of residence or the name and registered office of the person who is the statutory body of a legal person or its member, specifying how the person acts on behalf of the legal person and the starting day and end of function; if the statutory body or the member is a legal person, as well as the names and places of residence of the persons who represent the statutory body or its members,
- the name and place of residence of proxy, including the way he acts,
- other facts required by legal provisions.

The Trade Register is an information system of public administration that is administered by the Trade Licensing Office of the Czech Republic. The Trade Register records data associated with trade operation. The form of the Trade Register is included in § 60 of Act No. 455/1991 of the Coll., of trading activity. This is a public list maintained in electronic form. The Trade Register records natural persons and legal persons engaged in entrepreneurial activity. For natural persons, it includes, e.g., the name and place of residence of the natural person, the personal identification number, the company registration number and the business name. For legal persons, it includes its registered office and the company name, the company registration number, and the names, citizenship, and place of residence of the executive heads. The Trade Register also includes the line of business, the type of trade, the commercial premises, the information on trade licenses, the decision on bankruptcy, the initiation of liquidation, the barriers hindering trade, and other information. The Trade Register is available on the internet, e.g. on: http://www.rzp.cz/.

A company according to Act No. 513/1991 of the Coll., of the Commercial Code, is a set of tangible, as well as personal and intangible elements of entrepreneurial activity. A company contains things, rights and other assets owned by an entrepreneur. They are used to run the company, and they should serve this purpose due to their nature. [1]

The term company can be characterized as a structured unit created for the purpose of conducting entrepreneurial activity with inputs and outputs to ensure production, sale products, respectively provide services. The basic general objective of an enterprise is to increase the market value of the company.

The company is not isolated, but it is surrounded by the outside world, the surroundings. The surroundings of a company are understood as everything located behind the imaginary boundaries of a company as a social and economic and technical system, as well as everything that affects the company and that the company may eventually influence. The surroundings of a company makes it behave in a certain way, particularly in terms of the choice of certain objectives and the ways of achieving them. The effect of the surroundings on a company is usually very strong, while the ability of a company to influence the surroundings is rather limited. [5]

It is important for a company to know its surroundings and the factors that affect the company well, because the company then has the ability to more easily focus on the activities that are meaningful and promising and that bring the company a competitive advantage.

Company surroundings:

- Economic factors, such as interest rates, economic growth, business cycle phase, inflation, exchange rates, purchasing power of the population, etc.,
- political factors, such as the government policy, monetary and fiscal policy, the intensity of government intervention in the economy, the support of foreign trade, etc.,
- social factors, such as the structure of society, demographic changes in the society, education of inhabitants, etc.,
- technological and technical factors, such as new working practices, methods, and techniques, attitude to science and research, cooperation with universities, etc.,
- environmental factors, such as the attitude towards environmental protection, waste management, the degree of support to the use of renewable energy sources, etc.,
- legislative factors, such as laws and regulations.

Companies can be classified into several groups, according to certain attributes. The basic, significant sorting attributes are [5], [6]:

Legal form of business, where we distinguish a sole trader company, limited partnership (public limited company, limited partnership), stock companies (limited liability company, joint stock company), cooperative societies and state enterprises.

The size of the company, according to which we distinguish them, for example, into small companies (less than 100 employees and an annual turnover not exceeding 30 million CZK), medium-size companies (less than 500 employees and a turnover not exceeding 100 million CZK) and large companies.

Sectors, where we divide companies into three main sectors - agriculture (agriculture itself, fishing and forestry), industry (mining and manufacturing industry, production and distribution of electricity, gas and water supply, and building industry) and services (trade, finance and insurance, transport, warehousing and logistics, education, healthcare, veterinary and social activities, and other services).

Every entrepreneur, who wants to run his trade or company (manufacture products, sell goods, transport people or goods, lend money), must have the necessary means (machinery, buildings, raw materials, transport vehicles, licenses and patents, goods). To obtain them, entrepreneurs must have the necessary capital, whether their own or borrowed. The concrete composition of the means is referred to as assets (the company, firm assets), the origin (source) the assets were created from, i.e. the financial backing, is referred to as capital. [7]

Business property of an entrepreneur who is a natural person, in accordance with Act No. 513/1991 of the Coll., of the Commercial Code, includes assets (property, receivables and other rights, and other values that can be financially assessed), which are owned by the entrepreneur and serve or are intended for his entrepreneurial activity. Business property of an entrepreneur who is a legal person, according to the Act No. 513/1991 of the Coll., of the Commercial Code, refers to all his property. [1]

Trade name, according to Act No. 513/1991 of the Coll., of the Commercial Code, is the name under which the entrepreneur is registered in the Register of Companies. The entrepreneur is obliged to take legal acts on behalf of the company. The trend name of a natural person is always the first name and surname of the person. The trade name may contain an amendment distinguishing the

entrepreneur or the type of business. Trade name of a legal person is the name under which it is registered in the Register. [1]

Natural person – name and surname, event. an appendix e.g. Jan Novák, Barber.

Legal person - name under which it is entered in the Register of Companies + amendment indicating the legal form e.g. Kamila, s.r.o.; Slimák, a.s.

The trade name must not act deceptively and must not be confusable with another company.

Summary of the terms from the given chapter

- Entrepreneur,
- entrepreneurial activity,
- company,
- legal person,
- natural person,
- trade register,
- register of companies,
- business property,
- trade name.

Questions

1. What are the basic attributes of an entrepreneurial activity?
2. What is the basic difference between a natural and a legal person?
3. What basic information can you find in the Register of Companies?
4. What is the definition of a company according to Act no. 513/1991 of the Coll., of the Commercial Code?
5. What basic legal standards are related to entrepreneurial activity in the CR?
6. How are companies divided according to size?

References used

[1] Act no. 513/1991 of the Coll., Commercial Code.

[2] VEBER, J. Podnikání malé a střední firmy. 2nd updated and extended edition. Praha: Grada, 2008.

[3] Act no. 455/1991 of the Coll., Trading Activity Act.

[4] STANĚK, R. Problematika financování pracovního kapitálu u malých a středních podniků, Bachelor´s Thesis, FMMI, VŠB-TU Ostrava, 2013.

[5] SYNEK, M. a kol. Podniková ekonomika. 4th revised and extended edition. Praha: C. H. Beck, 2006.

[6] ŠIMAN, J., PETERA, P. Financování podnikatelských subjektů. Teorie pro praxi. 1st edition. Praha: C. H. Beck, 2010.
[7] SYNEK, M. a kol. Ekonomika a řízení podniku. Praha: Vysoká škola ekonomická, 1997.

2 ASSETS AND FINANCIAL STRUCTURE OF COMPANY

2.1 BALANCE SHEET

Study time: 1 hour

Objective

Once you have studied this paragraph, you will be able to:

- Define the balance sheet,
- describe the company structure of assets,
- describe the financial company structure.

Presentation

Every entrepreneur, if he wants to run his trade or company, (manufacture products, sell goods, transport people or goods, lend money), must have the necessary means (machinery, buildings, raw materials, transport vehicles, licenses and patents, goods). To obtain them, he must have the necessary capital, whether his own or borrowed. The concrete composition of the means is referred to as **assets** (the company assets), while the origin (source) the assets were created from, i.e. the financial backing, is referred to as **capital**. [1]

A balance sheet is a financial statement that shows the state of assets in a balance form - **assets** and the sources of their funding - **liabilities**. It presents a basic overview of the company assets in a static form, i.e. at the time of the final accounts. A balance sheet presents the true state in three basic areas, the assets situation of the company, the sources of funding, and the financial situation of company. [2] A balance sheet is a basic financial statement which provides a summary overview of the state of company assets from two points of view, namely in terms of its material composition (assets), and in terms of the resource of settlement (liabilities) at specific date. [1] The basic scheme of a balance sheet is shown in Table 1. [1]

Table 1: Basic scheme of balance sheet [1]

BALANCE SHEET	
ASSETS	LIABILITIES
I. Fixed assets Fixed intangible assets Fixed tangible assets Financial investments	I. Equity Nominal capital Capital funds Funds from profit Income from operations (+profit/-loss)
II. Short-term assets	II. Foreign resources
Inventories Receivables Short-term financial assets	Liabilities Credits Reserves
III. Accrual	III. Accrual
Total assets	Total liabilities

The internal breakdown of a balance sheet is adapted especially to the requirements of liquidity and company financial situation assessment.

The structure of company assets presents a detailed structure of the company assets – the assets in the balance sheet are divided into long-term (permanent), short-term and other assets. The structure of assets is affected by many factors, resulting mainly from the nature of the enterprise, but also from the goals that the company wants to achieve, both in short or long-term horizon. The structure of assets ensures the company existence. The requirements for technical equipment of various fields of activity affect the share of long-term assets (fixed assets) on the total amount (fund intensive fields, such as metallurgy, mechanical engineering, chemical production, power engineering, which show highly prevailing proportion of fixed assets compared to other fields). The structure of assets is also influenced by the method of depreciation, the expected growth in production, the pace of innovation of fixed assets or the volumes of leased assets. A properly managed structure of assets guarantees the functioning of the company and its financial stability. [4]

The structure of liabilities is referred to as the financial structure of company. The term of capital structure usually refers to the composition of long-term liabilities - long-term resources of the company. This is primarily the net worth and the long-term liabilities and loans. The term of capital structure is therefore, when compared the term of financial structure, a narrower one. The financial structure of company represents the structure of company capital, which is used to fund the assets of company and is recorded in the liabilities. [3]

Assets in the balance sheet are recorded in historical costs. The assets data are presented in two different valuations:

- Gross state - expresses assets at full value,
- Net state - expresses assets after correction, i.e. gross state minus correction. (The corrections are valuation reserves and adjusting entries. Note: valuation reserves are accumulated depreciations of the given assets part of tangible assets. The term depreciation is explained in chapter 2.2.1.3.

Balance sheet states of assets must be determined:

- By the company foundation day,
- by 31st December of each year (i.e. by 1st January of the following year),

- by the day the company liquidation commenced.

The date on which the balance sheet is elaborated is called the balance sheet date. In the Czech Republic, it is usually the 31st December of each year (it may be different - especially in consolidated companies), it is mandatory to submit the balance sheet to the tax authorities, together with the tax return of corporate income tax. However, companies prepare balance sheet for their own use or for banks, shareholders, etc. during the year on a specific date (monthly, semi-annually). [1]

The informative value of the balance sheet is limited by the fact that it describes the state on the basis of historical costs. This leads to further difficulties in analyzing the balance sheets [4]:

- It shows the status of values contained within the balance sheet at the given time, it does not provide information about the company dynamics; this drawback can be eliminated at the time when data are organized in time series,
- it does not work with the time value of money, it does not accurately reflect the current value of assets and liabilities, as it does not include the influence of external factors that could significantly affect certain balance sheet items,
- to determine the realistic values of some items, you have to use an estimate.

Summary of the terms from the given chapter

- Balance sheet,
- structure of company assets,
- financial company structure,
- balance sheet day.

Questions

1. What is a balance sheet?
2. In what process are the assets presented in a balance sheet?
3. What factors limit the informative value of a balance sheet?
4. How can the structure of company assets be defined?
5. How can the financial company structure be defined?
6. How can the capital company structure be defined?

References used

[1] VOZŇÁKOVÁ, I. JANOVSKÁ, K., SIKOROVÁ, A. MYNÁŘ, M. Ekonomika podniku, Ostrava: VŠB-TU Ostrava, 2008.

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[3] BAŘINOVÁ, D., VOZŇÁKOVÁ, I. Zhodnocení a využití účetních výkazů-pro manažery, společníky a akcionáře, Praha: Grada Publishing, 2005.

[4] RŮČKOVÁ, P. Finanční analýza, metody, ukazatele, využití v praxi, 3rd extended edition. Praha: Grada, a. s., 2010.

2.2 STRUCTURE OF COMPANY ASSETS

2.2.1 Fixed assets

Study time: 3 hours

Objective

Once you have studied this paragraph, you will be able to:

- Define fixed assets,
- describe the structure of fixed assets,
- describe the method of acquisition of fixed assets,
- explain the method of evaluation of fixed assets,
- define technical improvement,
- compare tax and accounting depreciations,
- calculate tax and accounting depreciations,
- understand the problems of repairs and maintenance of fixed assets.

Presentation

Structure of fixed assets:

- Intangible,
- tangible,
- financial.

An essential feature of tangible and intangible assets is that it enables or extends the existing entrepreneurial activity. Under normal conditions, they are not intended for sale (to raise additional funds), but for long-term use within the enterprise. Long-term financial assets are not acquired by a company with a view of using them for its activities, but it has them in its possession in order to achieve benefits in the form of specific revenues (e.g. receiving dividends) or in any other form of capital appreciation (mainly due to increasing market prices).

❖ **Intangible fixed assets**

These are assets with **usable life** longer than one year and in the **evaluation** determined by an accounting unit (company), but mandatory from the amount stipulated by the Income Tax Act (Act No. 586/1992 of the Coll., of the income tax) for these assets, which is 60,000 CZK.

The usable life longer than one year means the period during which the assets are usable for current or can be preserved for further activity. or they can serve as the basis or part of improved or other processes or solutions, including the period of practical verification or acquisition of intangible outcomes. [1]

Structure of intangible fixed assets:

- Start-up costs - these are costs associated with setting up or foundation of a new company, e.g. court and notary fees, costs of business travel, wages, mediation commission, etc.,
- intangible outcomes of research and professional activities - such as purchased technological procedures, projects, formulas, etc.,
- software-program computer equipment, i.e. independently developed or purchased; it does not include software that is part of the value of a computer,
- valuable rights - production or technical knowledge (know-how), licenses, objects of industrial copyright (registered patterns, trademarks).
- goodwill.

Goodwill can be defined as a positive or negative difference between the valuation of company or its part by course of the Commercial Code acquired in particular by purchase, investment or valuation of assets and liabilities within the scope of company transformation, with the exception of the change of legal form, and the sum of its individually revaluated assets items reduced by the assumed liabilities. [2]

- ❖ **Tangible fixed assets**

This group of assets usually includes the following characteristic features [3]:

- Physical nature,
- long-term use exceeding the period of one year,
- achieving certain valuation amount determined by the accounting unit itself, taking into account especially the principle of significance and the true and fair presentation.

Structure of tangible fixed assets:

- Individual movable assets and sets of movable assets with an independent technical and economic designation with a usable life longer than one year and in the valuation determined by the accounting unit, but mandatory from the amount stipulated by the Income Tax Act (Act No. 586/1992 of the Coll., of the income tax) for these assets, i.e. from the amount of 40,000 CZK,
- lands, buildings, constructions, apartments and non-residential premises, regardless of the purchase price,
- plantation units of permanent vegetation with fertility period longer than three years,
- basic herd and draft animals, regardless of the purchase price,
- works of art, collections, movable cultural monuments and objects of cultural value, regardless of the purchase price.

❖ Financial fixed assets

These assets include assets the company buys, owns or rents with an aim of long-term (for a period exceeding one year) investment of fluid assets in such a way that will provide the expected yield in the form of dividends, interests, appreciations as a result of increasing market prices of the assets held, etc. Such assets are therefore not intended for use in the normal operation of the company. Different types of financial fixed assets allow the company to acquire a suitable "portfolio", i.e. allocate the funds in such a way that they provide the highest achievable yield. [3]

Structure of financial fixed assets:

- Lock-away and deposits, which have long-term character,
- loans provided by the accounting unit with a maturity longer than one year,
- other lock-away and deposits with a maturity longer than one year,
- sets of movable and immovable property rented as a whole in accordance with the Income Tax Act (Act no. 586/1992 of the Coll., of the income tax).

Fixed assets may be acquired by [1]:

- Purchasing (supply method),
- creating by themselves ,
- acquiring the right to the outcomes of intellectual creative activity,
- acquisition free of charge (gift),
- deposit of fixed assets made by another person,
- transfer in compliance with legal enactments,
- switching from personal use to business use.

2.2.1.1 Fixed assets valuation

The acquisition of fixed assets takes into consideration the following valuation methods [1]:

- Market entry price:
  - Purchase price,
  - prime costs,
  - reproduction purchase price.
- Residual value.

Purchase price of intangible or tangible fixed assets is the price for which the assets were acquired, including the costs associated with the acquisition, particularly the costs of:

- Transport, installation and customs,
- preparation and assurance of construction until such an acquired investment is put to use,
- exploration, geological, geodetic and project work (including alternative solutions),
- works of art forming part of the building objects,
- compensations to eliminate the economic loss of agricultural organizations,
- opening of new quarries, sand and clay pits,
- technical recultivation,
- assurance and conservation work, eventually maintenance work in case of suspension of the acquired investment.

Market entry price of fixed assets is the purchase price, provided that the assets are acquired in an **onerous way, i.e. through purchase**.

Prime costs are all direct costs and indirect costs directly related to the creation of intangible and tangible fixed assets through company own activity, i.e. prime costs will be used as the market entry price if the assets were acquired or produced on its own account of the company.

Reproduction purchase price, determined mostly by a forensic expert, is used for the valuation of fixed assets in other cases, i.e. in particular:

- In case the fixed assets were acquired through donation,
- in case of assets acquired free of charge under a purchase contract of leased object (i.e. under a financial leasing contract), however, at the same time, there are valuation reserves created at the same amount, so that such assets are listed as 100% written off, which will be further explained in the chapter dealing with depreciation of assets,
- if the assets are recently entered in the books and not recorded so far (e.g. stocktaking excess),
- intangible fixed assets generated through the own activity of the company if the reproduction purchase price is lower than the prime costs.

The **market entry price** of fixed assets **does not include**:

- Contractual penalties, interest for delayed payment and financial compensation for damages related to investment construction, or other penalties resulting from the contractual relations,
- costs of preparing workers for the building plant and equipment,
- costs of inventory equipment of the acquired asset.

Residual value of fixed assets is calculated as the difference between the entry price and the valuation reserve, i.e. the depreciations up to now. (Note: valuation reserves are accumulated depreciations of the given asset item of tangible assets. The term of depreciation is explained in the next chapter). [1]

$$ZC_i = VC - \sum_{i=1}^{n} O_i \qquad (1)$$

ZCi residual value of fixed assets at the end of the i-th year of their depreciation (CZK)

VC entry price (CZK)

Oi annual depreciation in the i-th year (CZK)

n number of years included in the depreciations (lifetime)

When the records of fixed assets are kept (as well as other assets items), the accounting applies the so-called **historical valuation principle**, from the time when the assets were acquired. It means that the principle of revaluation (valorisation) to the current value is not used in this case.

2.2.1.2 Technical improvement of fixed assets

Technical improvement of fixed assets includes expenditure to complete extensions, additional building and building alterations, reconstruction and modernization of assets if the aggregate amount of the individual types of fixed assets exceeds the value of 40,000 CZK.

Reconstructions are such interventions in the assets that result in the change of their purpose or their technical parameters. Modernizations are such modifications that extend the facilities or usability of the assets.

Technical improvement increases the entry price of tangible fixed assets under the terms of the Income Tax Act (Act No. 586/1992 of the Coll., of the income tax). [4]

2.2.1.3 Fixed assets depreciations

Tangible and intangible fixed assets **wear out** during their participation in the production process and lose their functional end-use properties. The value of assets is gradually transferred to the price of products and services that are produced using the assets. This gradual transfer of fixed assets value into products in economic practice is expressed through **depreciation**.

The use of tangible and intangible assets wears them out both physically and morally. **Physical wear and tear** of assets means a gradual loss of end-use properties of these assets, which may result, for example, in the decrease of its performance, higher costs of repairs and maintenance, increased energy consumption, and so on. From a theoretical point of view, we can distinguish two kinds of physical wear and tear of assets, namely wear and tear resulting from the use of such assets in the production process, and wear and tear that occurs even during idle time, e.g. as a result of the action of natural forces (corrosion) and other factors that cause material changes. **Moral wear and tear** of assets is essentially caused by the technological progress, which results in increasing technical levels of means and their performance and in technology improvements. [1]

2.2.1.3.1 Book depreciations

Book depreciations follow § 1, paragraph 2 of Act No. 563/1991 of the Coll., of accounting. In addition, depreciation of assets follows § 56 of Decree No. 500/2002 of the Coll., for entrepreneurs, and also the Czech accounting standard. [2, 5]

„The purpose of book depreciation is to express the permanent decrease of assets value. This statement must reflect the actual extent of assets wear and tear.“ [6]

From accounting point of view, fixed assets are depreciated on the basis of depreciation schedules. Book depreciations provide the accounting units with an overview of the actual wear and tear of tangible and intangible assets regardless of what tax regulations allow. The depreciation method is chosen by the accounting unit itself and these book depreciations represent the actual rate of wear and tear of assets in the company. The company determines the lifetime and depreciation rate in % in the so-called depreciation schedule for depreciation according to the degree of wear and tear of each type of fixed assets. Book depreciation is calculated up to 100% of the entry price of assets.

2.2.1.3.2 Tax depreciations

Tax depreciations are governed by the Income Tax Act No. 586/1992 of the Coll., as amended. When calculating tax depreciation, we proceed in compliance with § 26 - 33 Act No. 586/1992, of income tax. [4] They are therefore used in the calculation of the income tax base, when they are included (if they meet the conditions defined by the income tax act) in the costs necessary to achieve, assure and maintain revenues. Their use is not mandatory, however, they represent a tax relief, because they reduce the tax base determined from the economic results. Whether the company will use them or not depends entirely on the decision of the company. When depreciating assets that are only partly used to ensure taxable income only the aliquot part of depreciations is included in the expenditures to ensure taxable income.

Tangible and intangible fixed assets are depreciated by a taxpayer who:

- Has the right of ownership to the assets,
- state organizational department responsible for state assets administration,
- state organization responsible for state assets administration.

Depreciation of tangible fixed assets

Two basic methods have been determined for tax depreciation of assets [4]:

- Straight-line (linear) tax depreciation (§ 31 of the Income Tax Act No. 586/1992 of the Coll.),
- accelerated tax depreciation (§ 32 of the Income Tax Act No. 586/1992 of the Coll.).

An accounting unit chooses the method that will be used for tax depreciation of the individual assets for each individual asset item. This method must not be changed throughout the entire period of use.

According to the Tax Act, the Income Tax Act No. 586/1992 of the Coll., the income tax payer (a company or an individual entrepreneur - will be referred to as taxpayer in this sub-chapter) will allocate the assets in the year of acquisition into six depreciation groups where the depreciation period is established by law, see Table 2. [4]

Table 2: Depreciation groups [4]

Depriciation group	Depriciation period
1	3 years
2	5 years
3	10 years
4	20 years
5	30 years
6	50 years

Example [4, 7]:

- Depreciation group no. 1: breeding animals, breathing apparatuses, office equipment and computers, etc.,
- depreciation group no. 2: motor vehicles, vending machines, mining machinery, medical devices and equipment, musical instruments, etc.,

- depreciation group no. 3: safes, cranes, air conditioning devices, steel or aluminium structures, turbines, etc.,
- depreciation group no. 4: building site fencing, wooden and plastic buildings, construction of vineyards, industrial chimneys, etc. ,
- depreciation group no. 5: buildings, highways, roads, local and tertiary roads, ground water reservoirs, fountains, hydrants, cisterns, etc.,
- depreciation group no. 6: hotel buildings and accommodation facilities, historical and cultural monuments, museums and libraries, etc.

❖ Straight-line (linear) tax depreciation

The formula used for the calculation of annual straight-line depreciations [1]:

$$RO = \frac{VC * rate}{100} \qquad (2)$$

RO annual depreciation in CZK

VC entry price in CZK

rate depreciation rate in %

Annual depreciation rates for straight-line depreciation are presented in Table 3. [4]

Table 3: Straight-line depreciation rates [4]

Depriciation group	In the first year of depreciation	In the following years of depreciation	For increased entry price
1	20	40	33,3
2	11	22,25	20
3	5,5	10,5	10
4	2,15	5,15	5
5	1,4	3,4	3,4
6	1,02	2,02	2

The term of **increased entry price**, respectively increased residual value, is used if the fixed assets are technically improved. Technical improvement is defined as a cost to complete extensions, additions to building and building modifications, reconstructions and modernizations of the assets, provided that the aggregate amount of the individual types of asset exceeded the value of 40,000 CZK.

Specific depreciation (with higher rates and thus faster depreciation), in accordance with the Income Tax Act, can be used in the event that the company is predominantly engaged in agricultural and forestry production, and is the first owner of the equipment used for purification and treatment of water. More beneficial (i.e. higher) annual depreciation rate is also used by a taxpayer who is the first owner of tangible assets. [4]

❖ Accelerated tax depreciations

A formula for calculation of annual accelerated depreciations [1]:

Depreciation in the 1st year:

$$RO_1 = \frac{\text{market entry price}}{\text{coefficient from the table}} \quad (3)$$

Depreciations in the following years:

$$RO = \frac{2 * ZC}{\text{coefficient from the table} - n} \quad (4)$$

ZC residual value in CZK (is the difference between the entry price of tangible assets and the total amount of depreciations of these assets)

n number of years during which the assets were depreciated

In case of accelerated depreciation of tangible fixed assets, the individual coefficients for accelerated depreciation are assigned to depreciation groups according to the Income Tax Act; see Table 4. [4]

Table 4: Annual depreciation rate for taxpayers who are the first owners of tangible assets [4]

Depriciation group	Accelerated depreciation coefficient		
	In the first year of depreciation	In the following years of depreciation	For increased residual price
1	3	4	3
2	5	6	5
3	10	11	10
4	20	21	20
5	30	31	30
6	50	51	50

Tax depreciation in the amount of the entire annual depreciation can be applied to tangible fixed assets registered in the taxpayer's assets by the end of the given year.

In some cases (including the case of acquisition of fixed assets), depreciation can be claimed only in the amount of one-half of the annual depreciation, especially in cases [4]:

- If, during the taxable period, assets are taken out before the end of the year (in the tax laws, we are talking about the taxable year),
- if the assets are transferred to another legal or natural person under special legal enactments,
- in the event of termination of the entrepreneurial activity or another type of self-employment, terminated leasing, dissolution without liquidation, termination without liquidation, dissolution with liquidation or bankruptcy - generally the closure of a company,
- in other specific cases referred to in the Income Tax Act.

Tangible assets excluded from depreciation [4]:

- Free of charge transfer of assets according to financial leasing contracts (in other words, financial leasing and subsequent purchase of the leased object), if the expenses (costs) related to acquisition do not exceed 40, 000 CZK,
- perennial crops with the period of fertility exceeding three years, which has not reached the age of fertility yet,
- hydro-melioration up to 2 years after its completion,

- work of art that is a tangible property and is not part of a construction and building, objects of museum and gallery value, or their sets in museums and historic buildings, permanent exhibition sets and library stock of libraries of a uniform system,
- movable cultural monuments and sets of movable cultural monuments,
- in other specific cases referred to in the Income Tax Act.

Task to solve

Example

In 2010, an accounting unit purchased production equipment at the purchase price of 500,000 CZK. The lorry was classified according to Act No. 586/1992 of the Coll., of the Income Tax Act, into depreciation group no. 2. Determine the straight-line and accelerated depreciations.

Solution

- VC 500, 000 CZK,
- depreciation group no. 2,
- depreciation time is 5 years.

The calculated straight-line depreciations are presented in Table 5. The calculated accelerated depreciations are presented in Table 6.

Table 5: Straight-line depreciations

Depreciation year	Rate in %	Calculation	Depreciation in CZK	Value reserves in CZK	Residual value in CZK
2009	11	(500 000 * 11)/100	55 000	55 000	445 000
2010	22,25	(500 000 * 22.25)/100	111 250	166 250	333 750
2011	22,25	(500 000 * 22.25)/100	111 250	277 500	222 500
2012	22,25	(500 000 * 22.25)/100	111 250	388 750	111 250
2013	22,25	(500 000 * 22.25)/100	111 250	500 000	0

Table 6: Accelerated depreciations

Depreciation year	Coefficient	Calculation	Depreciatio n in CZK	Value reserves in CZK	Residual value in CZK
2009	5	500 000/ 5	100 000	100 000	400 000
2010	6	2* 400000/(6-1)	160 000	260 000	240 000
2011	6	2*240000/(6-2)	120 000	380 000	120 000
2012	6	2*120000/(6-3)	80 000	460 000	40 000
2013	6	2*40000/(6-4)	40 000	500 000	0

2.2.1.4 *Repairs and maintenance of tangible fixed assets*

Tangible fixed assets lose their original end-use properties due to wear and tear and cease to meet the requirements imposed on them by production and work safety. In order to ensure continuous cost-effective operation of these assets, including the work safety, you must either repair their individual parts or the entire device as a whole. In this sense, tangible fixed assets renovation can be performed as [1]:

Repairs are usually defined as a process which removes partial physical wear and tear or damage in order to put the assets items in working condition, to restore their technical properties, to eliminate their functional, visual and safety deficiencies. In case of buildings and structures, their service quality, use value and safety are restored.

Maintenance of tangible assets means regular care, which slows down the physical wear and tear process; it prevents its consequences so as to ensure the operational status of the assets and the safe operation, or in order to remove minor defects.

The costs associated with the maintenance and repairs of tangible assets are funded from operating funds of the company, i.e. they are part **of the costs of normal operations**.

Companies may create a **reserve** to perform repairs of tangible assets. Provided that certain conditions set by the act of reserves are met (Act No. 593/1992 of the Coll., of reserves in order to determine the income tax), this reserve may be tax deductible, which means that its creation will increase the acknowledged tax costs, while the utilization of the reserve will reduce the tax deductible costs of company. [8]

The economy of a company is affected by maintenance in three ways [1]:

- Duration of repairs directly affects the time utilization of production units,
- quality of repairs has impact on the performance, but also the time utilization of production facilities and thus the volume of production,
- maintenance heavily increases the production costs (8 - 15% of total costs) and significantly affects work efficiency, as the share of maintenance staff on the total number of employees is 1/5 to 1/3.

Summary of the terms from the given chapter

- Tangible fixed assets,
- intangible fixed assets,
- financial fixed assets,
- acquisition of fixed assets,
- valuation of fixed assets,
- technical improvement of fixed assets,
- depreciations of fixed assets,
- repairs of fixed assets,
- maintenance of fixed assets.

Questions

1. How would you define tangible fixed assets?
2. Can the entry price of tangible fixed assets include the costs on preparing workers for the plants and equipment under construction?
3. Does the valuation of fixed assets apply the revaluation principle to the current value?
4. What is the basic meaning of book depreciation?
5. Do tax depreciations adhere to accounting depreciation schedule?
6. Is an enterprise (accounting unit) under obligation to apply tax depreciation?
7. Under what conditions can you apply the entire amount of the calculated annual tax depreciation?
8. What affects the length of depreciation of tangible fixed assets when tax depreciation is applied?
9. Are the costs associated with the maintenance and repair of tangible assets included in the costs of operations?

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[3] STOHL, P. Charakteristika a členění dlouhodobého majetku, [online], [cit. 2013-03-12]. Available from: < znojmo.cz/uploads/pdfs/MO12_KAPITOLA_4.pdf >

[4] Act no. 586/1992 of the Coll., Income Tax Act, as amended.

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[7] POSKEROVÁ, K. Odepisování dlouhodobých aktiv a jeho vztah k dani z příjmu, Diploma Thesis, Ekonomická fakulta, VŠB-TU Ostrava, 2011.

[8] Act no. 593/1992 of the Coll., of reserves to provided income tax base.

2.2.2 Short-term assets

Study time: 5 hours

Objective

Once you have studied this paragraph, you will be able to:

- Define short-term assets,
- describe the structure of short-term assets,

- clarify the valuation methods of short-term assets,
- explain the assets management method,
- explain the receivables management method,
- define and explain the security instruments as preventive security of receivables,
- explain the management of short-term financial assets,
- define working capital,
- define liquidity.

Presentation

In addition to fixed assets and labour force, the activities of every company also require items that are consumed in production in a single action during their release into consumption (e.g. material inventories). In most cases, they do not retain their natural substantive form during the production process, but they are transferred into the product and they create either its material substance or part. These objects form an important part of company assets, namely the so-called short-term assets.

Company should have sufficient amount of short-term assets to meet the requirements of the efficient operation of the company. If it has a lower amount, it means that the fixed assets (buildings, machinery, and equipment) are not exploited, which is inefficient and hinders the overall development of the company. If it has an excessive amount of short-term assets, a part of them is inactive, which leads to unnecessary costs. The ideal situation is not to try to minimize short-term assets, because it may jeopardize the continuity of the basic functions of the company, but to determine the optimal level of short-term assets, which ensures a trouble-free operation of the company with the lowest possible total cost. [1]

2.2.2.1 Structure of short-term assets

Structure of short-term assets:

- Inventories,
- receivables,
- short-term financial assets.

❖ **Inventories**

Structure of inventories:

- Stock,
- work in process,
- semi-finished products from own production,
- products,
- animals,
- stored goods.

Materials include:

- Raw materials (basic materials) are materials converted entirely or in part into the product during the manufacturing process and they form its essence,
- auxiliary materials are substances that are also converted directly into the product, but they do not form its essence,

- operational substances are substances that are needed for the operation of the organization as a whole,
- spare parts are objects intended to put the tangible property back into its original condition,
- small tangible assets, in case of which the accounting unit decided that they are not fixed assets,
- movable assets with a usable life of one year and less, regardless of the purchase price.

Work in process includes products that have already gone through one or more production steps and are no longer a material, but are not a finished product yet.

Products are objects produced by the company and intended for sale outside the accounting unit or for consumption within the accounting unit.

Animals are a specific type of inventory typical for agricultural production. They include, for example, young animals, short-fed animals, small animals, not the basic herd.

Goods are movables acquired for the purpose of sale, if the company trades with these things.

Inventories and their required amount are greatly affected by the type of company and the line of business. Trade companies keep minimum material inventory, but a lot of product inventory, while work in process is completely missing. Technology-intensive productions, on the other hand, have high degree of work in process and unfinished products represent a substantial part of their inventories. Small companies usually have a relatively higher proportion of inventories than large companies in the same line of business, because they are more affected by any fluctuations and costs of shortage. [2]

❖ Receivables

Receivables represent a debt to a company resulting from unpaid delivered goods, work and services. Companies sell the results of their activity, i.e. products, work and services to their customers, and payments for these supplies are made with a certain delay due to the delivery and the agreed maturity date of the invoiced performances – resulting in account receivables. They basically express the financial claims of the company. A substantial part of receivables arises in connection with the supplier - customer relations, however, other claims arising from the economic activity of the company may also have the character of receivables. [3]

- **Trade receivables** - arise from the supply of products, goods, performed operations, work and services, provided that the customer - in compliance with the agreed terms of payment - pays for these services with a delay after their realization,
- **receivables** arising from the **investment of capital** into financial investments or short-term financial assets, respectively to their credit forms,
- **receivables** arising in companies **for a number of other reasons**. They arise as **claims** for tax refunds, claims for social security benefits, claims for repayment of principal made by partners, claims for damages from insurance companies, receivables from employees, etc. Some receivables originate by law and by the decisions of judicial and other authorities.

Receivables according to maturity:

- **Long-term**: maturity >than 1 year,
- **short-term**: maturity < than 1 year.

- **Short-term financial assets**

A characteristic feature of short-term financial assets is their high liquidity, immediate negotiability and anticipated holding (maturity) not exceeding one year.

Short-term financial assets include:

- Cash (money in cash, cheques, cash vouchers),
- valuables (post stamps, stamps, phone and other cards, luncheon vouchers),
- deposit accounts (current account, deposit account, foreign currency account),
- marketable securities (foreign and own shares, participation certificates with maturity not exceeding 1 year),
- debt securities (purchased certificate of deposit, foreign and own bonds, bills of exchange acquired for the purpose of trading, treasury bills).

The motifs of holding short-term financial assets also include certain need for safe assurance available to cover unexpected expenses if the flow of anticipated income fails. [2]

2.2.2.2 Short-term assets valuation

Purchased inventories are valued by the company at their purchase prices, i.e. including all additional acquisition costs related to the acquisition of the inventory in question (e.g. transportation cost, customs, insurance). The inventory purchase price should also be divided into inventory price at which the assets were acquired, the costs related to the purchase or a pre-determined inventory price and the deviation from the actual inventory price, and the costs related to acquisition. Inventories acquired free of charge, found (excess reserves), waste and residual products returned from production or another activity are valued by means of reproduction purchase price. The inventory produced internally is valued by the company using prime costs. Prime costs of inventories produced internally are direct costs of these activities, or a part of indirect costs related to this activity. The financial costs associated with the use of foreign sources (e.g. interests) may be included in the prime costs only if they are included in the period of their creation. [3]

Receivables and short-term financial assets are valued at their nominal value.

2.2.2.3 Short-term assets management

The method of management of short-term assets affects the amount of finances in companies. Management of short-term assets - we also speak about working capital management - defines the required amount of cash in the company. The more successfully and effectively the company will manage its short-term assets, the smaller amount of financial means it will require. Increasing the amount of money the company works with also means increasing the company costs. [3]

The indicators affecting the short-term assets requirements include, in particular [3]:

- Type of production - the lowest amount of short-term assets is usually required in mass production, higher in the series, and the highest is in the single-piece production. The requirements for short-term assets also differ in various sectors, as relatively lower requirements are found in mining industry, while high ones are typical for manufacturing industries,

- production volume - higher production volume in otherwise stable conditions means higher needs of short-term assets, the degree of dependence of these requirements on the production volume can be different in different sectors,
- structure of manufactured production and assortment range – the more extensive the produced range, the larger the funds tied up in production inventory, or in product inventories,
- the length of the production cycle,
- production and circulation prime costs and the prices of manufactured products - the amount of prices of each type of inventory, savings or exceeded production costs are other factors that, to a large extent, affect the scope of short-term assets,
- the level of social division of labour - the development of concentration, specialization and cooperation in various sectors creates conditions for better forms of organization of production, for its technological development, and the growth of labour productivity. This should also be reflected in shortening the production and sales cycle, thus affecting lower fixture of short-term assets,
- technical development of production - its implementation should reduce the specific consumption of raw materials, fuel, increase labour force and production equipment efficiency, which should again cause lower fixture of short-term assets in the company,
- last but not least, the amount of short-term assets is affected by the quality of supplier - customer relationships.

❖ Short-term assets turnover rate

Short-term assets are found in companies in all their forms simultaneously, yet they are in constant motion, they are constantly moving from one form into another during their cycle. The shorter the time they remain in each of these forms, the smaller funds will be tied in them. The rate of turnover of short-term assets thus characterizes the extent of their utilization. It can be expressed using two basic indicators, namely [2]:

- Number of turnovers during certain period of time (usually one year),
- time of short-term assets turnover.

The indicator of the number of turnovers is expressed by the share of the total volume of executed production per year and the average balance of short-term assets in the given year. The reciprocal value of this indicator is the so-called short-term assets turnover rate coefficient and it indicates how many CZK of short-term assets the company ties to 1 CZK of executed production.

$$n = \frac{O}{S} \tag{5}$$

N number of turnovers of short-term assets in the monitored period (during 1 year)

O value of executed production during the monitored period (CZK*)*

S average balance of short-term assets during the monitored period (CZK)

In practice, this indicator is calculated on the basis of the average balance of short-term assets of company, or on the basis of the average inventory balance. The indicator of revenues or performance of a company is entered instead of executed production. The indicator of the number of turnovers thus indicates how many times the short-term assets "were turned" during the monitored period, i.e. how many times they theoretically passed the stage of their existence when they enter performance.

The turnover time indicator of short-term assets can be calculated from the formula:

$$t = \frac{T}{n} \qquad (6)$$

t short-term assets turnover time (days)

T length of the period which is used for the calculation of the number of turnovers (usually 1 year, the calculations take into account 365 days)

N number of turnovers of short-term assets during the period in question

Acceleration of short-term assets turnover time is possible in all spheres of their cycle. The decisive factor, however, is especially the reduction of inventory balance due to its significant share on company short-term assets.

2.2.2.3.1 Inventory management

Inventory management represents effective handling and effective management of inventories, the use of all reserves existing in this area, and respecting all the factors that affect the efficiency of inventory management. The existence of inventory at the moment when they have no application, when there is no demand for them means unnecessary spending (both physical and financial, but also of human resources). Lack of inventory when it is necessary to meet the customer's order results in a loss of sales and, consequently, a loss of customers and good reputation of the company, but not only that. There are also some additional costs (especially transport and handling). If the issue is satisfying the needs within the company, it means transferring the deficiency into production (inability to execute the anticipated production process in time, failure to meet the planned tasks, failure to meet the promised delivery time); this leads to disruptions of the overall management, production and marketing process in the company. [3]

Companies acquire inventory especially for the following reasons:

- Satisfying the requirements of customers,
- ensuring the terms and volumes of orders concluded in purchase contracts with customers,
- minimization of losses arising as a result of interruptions in supplies of planned inputs.

The objective of inventory management is keeping inventories in such (average) a level and in such a composition, to ensure rhythmical and uninterrupted production, as well as the readiness and completeness of deliveries to customers, while maintaining the total associated costs at their minimum. The main subject of operational decision-making is answering the question of **when and how much to request** for production and for replenishment. [3]

In terms of **operational inventory management**, it is important to divide inventories according to their function [2]:

- Normal (turnover) stock – part of inventory that covers the requirements in the period between two supplies,
- buffer stock – part of inventory that covers the deviations from the planned (average) consumption,
- technical (technological) stock - the amount of material in case of which it is still necessary to ensure standard quality prior to its use in the process, it is e.g. wood drying, aging of cast pieces,

- seasonal stock - it can be replenished only in a certain period (season), but the consumption is even throughout the year or, vice versa, the consumption is seasonal, but the stock must be created gradually,
- emergency stock - it is created in places, where the lack of material could cause serious problems in the entire production process.

Maximum inventory level

Maximum inventory level is the highest level of stock which is achieved at the time of acceptance of a new supply. It consists of the value of supply and the buffer stock.

Minimum inventory level

Minimum inventory level represents the lowest level of stock which is achieved at the time before a new supply is accepted, provided that the normal supply has been exhausted. Usually, it equals the volume of buffer stock.

Immediate inventory level

Immediate inventory level of stock items must be known especially during the realization of the rules set for inventory control, when confirming the customer orders and when assigning the production orders.

Average inventory level

In terms of funds tied up in inventories, the actual average stock is particularly important. Calculations for the purpose of inventory management divide the average physical inventory level into turnover (normal) stock and buffer stock . Buffer stock is in warehouse all the time.

Turnover stock is usually calculated using the formula, where is the order batch size. This formula assumes roughly balanced (not shock) demand. [3]

$$Z_c = Z_b + Z_p = \frac{Q}{2} + Z_p \text{ [m.u.]} \tag{7}$$

Z_c average physical inventory level

Z_b turnover (normal) stock

Z_p buffer stock

Q order batch size

- **Inventory related costs**

The inventory related costs include [3]:

- **Ordering costs**

They are mainly associated with the administration related to the acquisition of a batch to replenish inventory. This need may arise:

During external purchase - there are primarily costs associated with the preparation and placement of orders (selection of supplier, delivery conditions ...), transport costs, costs of acceptance (control), costs of storage of supply and its registration, cost of invoicing.

During production – similar to external purchases, there are also costs of the preparation of orders, issuing production order, cost of preparation (batch) times, conversion costs (e.g. production equipment setting), cost of control of products, stock receipt and registration.

- **Inventory maintenance costs**

They may include especially:

a) Cost of funds tied up in inventories - interests of loans, short-term calculations take into account the average interest rate, long-term calculations are based on the return on capital and the internal rate of return standard is used instead of interest rate, which is determined by the company management,

b) storage and inventory management costs - costs associated with warehouse operation, inventory records, depreciations of buildings and equipment, security services, insurance, etc,

c) the costs of risk - are represented by costs related to decommissioning of redundant inventory, to discounts in sale of these inventories, etc.

- **Shortage (deficit) costs**

They arise at the time the stock is insufficient to meet the requirements of internal consumers (these are "additional costs" of purchase for fast or substitute provision, of production-related downtime, of extension of continuous production time, of the creation of higher inventory level of work in progress, etc.) and during sale process (extraordinary expenses of breach of duties, loss of customers and deterioration of competitive position, etc.).

2.2.2.3.2 Receivables management

For the purpose of management, receivables are divided into groups, in particular according to [4]:

- Risk level of customers,
- maturity (within the due date, after the due date),
- location of customers (domestic, foreign),
- denomination currency of the receivables (CZK, EUR, USD),
- regularity of occurrence of the business case (regular, irregular).

Management of business contact receivables is focused mainly on [4]:

- Determining whether and to whom to provide a trade supplier credit, respectively in what amount (based on a financial analysis, data from the Register of Companies, commercial databases),
- minimization of the risk of failure to settle the receivables (insurance, factoring),
- monitoring of receivables with an emphasis on meeting the maturity date,
- collection policy (procedures of debt recovery), monitoring the average amount of receivables.

The risk of problematic receivables (i.e. receivables after due date and irrecoverable debts) can be reduced by means of **security instruments** - some of them are listed below, and sufficient information about customers.

❖ Sources of information

Companies trying to improve their corporate management must realize that the key of preventive provision of receivables lies in the most detailed information, as it allows us to properly assess customers and to adapt to the business terms. The speed and quality of the acquired information significantly affects the decision-making process. The information on customers may be obtained from internal and external sources. The information about previous payment record of customers is an important internal source. External information is generally divided into [3]:

- **Office** (administrative, identification) information can be obtained from open sources (Register of Companies, Trade Register),
- **credit information** is used to analyze the solvency of a business partner; in addition to the basic financial characteristics (balance sheet, profit and loss statement), they contain more information about the previous payment records, the overall financial standing of the company and any special events in the company,
- **banking information** can be legally obtained in accordance with § 38 of Act No. 21/1992 of the Coll., of banks. The term banking information includes a specific type of information that a bank collects about their clients. A bank may share the information with a third person only with the consent of the client. The client's consent is not required only in cases of civil proceedings or a criminal prosecution.

Basic information about a company can be obtained from the Certificate of Incorporation or an extract from the Trade Register. **Certificate of Incorporation** can be obtained relatively easily; you can visit or submit a written request to the court that administers the Register of Companies. The Register of Companies can also be found on the Internet under the link of http://www.justice.cz/, where it is free of charge at the moment. In case of the Register of Companies, it is necessary to allow for the fact that the data may not be up-to-date.

The Trade Register - to obtain extract information from the Trade Register, it is necessary to prove legal interest, i.e. to submit a request in the form of an order, power of attorney, invoices, contracts, etc. Trade Registers are administered by the trade department of the local (city or municipal) authority.

The information obtained from these sources alone cannot accurately assess the customer's payment records. On the basis of general experience, however, the information is sufficient to assess the potential risks of failure to make payment.

❖ Preventive security of receivables – security instruments [3, 5]

The risk of problematic receivables can be reduced by security instruments - some of them are shown in Figure 1. [3, 5]

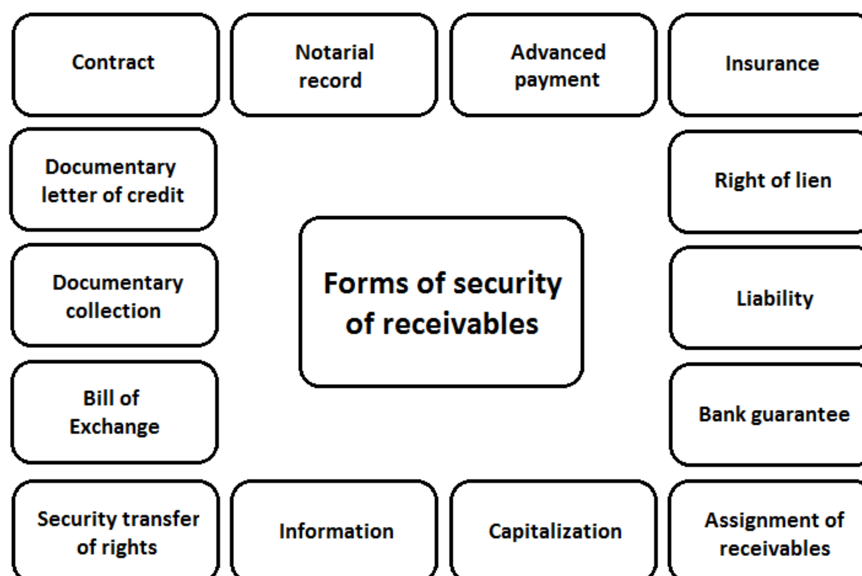

Figure 1: Forms of security of receivables

1. Contract

The conclusion of a purchase contract is a decisive precondition for the existence of an outstanding debt. The important factors of any eventual debt recovery include the **content of the contract, and the delivery and payment terms**. It is important to choose clear expressions when drawing up a contract. Any changes and deviations from the contract must be resolved by a **written amendment** with the consent of all participating parties. The most common practical cases deal with a contract between two entrepreneurs (seller - buyer), but there are often more participants, in which case the conclusion of a contract requires the agreement of all parties to the contract. The content of a contract must clearly state the content of the obligation, i.e. who is obliged to carry out the obligation to whom and when, and what the consideration amount is.

2. Advance payment

Advance payment is used to cover part or the entire value of the agreed delivery price. The amount to be paid is not given by any regulation and therefore depends only on the agreement between the supplier and the customer.

3. Insurance of receivables

It is also possible to insure a debt, especially with regard to a debt arising from foreign trade, as trading with foreign countries leads to several risks. They may include payment difficulties caused by political events in the country of residence of the buyer (war, revolution, civil unrest, strikes), inability to transfer the payments to the Czech Republic due to serious economic difficulties of the country of residence of the buyer, the announcement of insolvency, the introduction of a moratorium on payments, or a natural disaster, etc. Nowadays, there are companies in the Czech Republic dealing with the insurance of payments. Companies dealing with insurance usually have extensive databases which means that they can assess the financial standing of the customer.

4. Right of lien

The right of lien is one of the widely acknowledged security instruments. The right of lien is governed by the Civil Code. [6] The parties involved in a legal relationship are represented by a lien creditor and a distrainee. A pledger may be another participant, i.e. the person who pledged the item to provide security of debtor's obligation. The pledger may be identical with the person of the

debtor, but they may be different people. The right of lien serves to secure a debt, and in the event of a breach of timely and due performance of the obligation, a lien creditor is entitled to claim satisfaction from the pledged item.

The right of lien serves two functions:

- Security – it motivates a debtor to meet the obligation to repay a debt,
- substitution - in the event of a failure to meet the obligation, the debtor gives the creditor an option to settle the claim from the subject of the lien.

A contract shall define the subject of the lien and the secured debt. The subject matter of a lien may be either movable or immovable property, stock or a debt. However, the item must be defined individually and must be a separate object. A collateral may only be an object the pledger has the right of ownership to. A foreign object can be pledged only with the consent of the owner.

A pledged item must be duly handed over to the lien creditor or to another person the pledger and the lien creditor agreed may keep the item. This bailment may be replaced by an act stipulating that the right of lien is determined in a document that certifies the ownership of the pledger and that is necessary to use the item (e.g. vehicle identification card).

If the collateral is real estate, the right of lien is established by the registration in the Real Estate Register. The right of lien can be established for a specified period of time, up to a specified amount for a specified type of debts the creditor will have towards the debtor in the future.

Unless the debt, secured by movable or immovable property, is settled in due and timely manner, the lien creditor is entitled to sell the pledged item in a public auction. The lien creditor is obliged to inform the pledger and debtor about the intended performance of the right of lien in advance. After the sale realization, the lien creditor is obliged to release the proceeds of the sale in excess of the secured debt to the debtor without undue delay.

5. Stipulated damages

Stipulated damages essentially represent a penalty in the form of a compensation for damages as a result of the breach of obligations the parties have agreed on. The character of the compensation is included in the fact that stipulated damages must be paid in case of a breach of the agreed obligations, regardless of whether the damage actually arose or not. An agreement regarding the stipulated damages must be concluded in writing, even if the contract the stipulated damages are related to is not written. An essential element of this written agreement is the necessity to determine the amount of damages, or at least the method that should be used to determine the amount.

6. Bills of exchange

A bill of exchange as a security instrument of receivables is just one of its practical applications, which also include the use of a bill of exchange as a credit or a payment mean.

In terms of legal theory, a bill of exchange is defined as a "marketable" security, including exactly specified elements given by the law (Act No. 191/1950 of the Coll., of Bills of Exchange and Cheques), in particular an unconditional commitment or an order of an issuer to pay the specified amount of money, at a certain time, in a certain place, and ensuring its holder has the right to require such a performance from the person who signed the bill of exchange. [7]

A bill of Exchange is a negotiable instrument which is an order in writing that is signed by the individual drawing it and it basically directs a second party to pay a fixed amount of money at a particular time, to a third party. The term ‘party’ might constitute an individual, or a corporation or even a bank.

The person who draws the bill or makes the bill is commonly referred to as the ‘drawer’ or ‘maker’.

The person on whom the bill is drawn or to whom instruction for payment to a third party is made or the second party is commonly referred to as a ‘Drawee’.

The person who receives the payment or the third party is commonly referred to as a ‘Payee’.

It is used primarily in international trade, and it is a written order by one person to pay another a specific sum on a specific date sometime in the future.

The following elements can never be omitted:

- The term “Bill of Exchange" inserted in the text of the instrument - the designation of Bill of Exchange must be written in the language in which the whole document is written.
- Unconditional order to pay a certain sum of money - usually the mere imperative "Pay“; sum of money must be expressed in words or figures, or in both ways.
- The name of the person who is to pay - name of the drawee.
- The name of the person to whom or to whose order payment is to be made.
- The date of the drawing of the Bill of Exchange.
- The signature of the drawer.
- The place of payment.
- The place of the drawing of the Bill of Exchange

Indication of Maturity

The bill of exchange may be payable:

- At sight - is based on expressly using words "at sight", "at presentation", "after sight„ The due day is the day when the bill of exchange is presented to the respective person for payment.
- At a fixed period after sight - "one month after sight" The time stated in the bill runs from the day of acceptance of the bill or the protest.
- At a fixed period after the date of drawing - "pay in a month after drawing“.
- On a fixed day - it is the usual determination of maturity date, for example, "on 31st August 2011".

Bills of Exchange with another type of maturity are invalid.

7. Factoring

Factoring is based on the repurchase of short-term receivables before their maturity. The repurchase of receivables is performed by a specialized factoring company. Factoring companies repurchase receivables that are usually not secured by any security instruments. A factoring agreement is mostly concluded for a certain time period. It is a written agreement of the transfer of debt. A factoring company (thereinafter a factor) repurchases all receivables that meet the

conditions of the factoring contract from the client. The transfer of debt does not require the consent of the debtor (customer). The exception may a case when there is a contract concluded between a supplier and a customer, that excludes the transfer of debt or the transfer of debt must is permitted only with the consent of the customer.

A factor (factoring company) enters into an agreement to reimburse part of the receivables to the supplier, regardless of whether the customer actually settles the debt or not. It is mostly related to the repurchase of receivables without the so-called recourse, when the factor takes over all the risks related to the debt. The original creditor (supplier) is responsible for the receivables only in case he violates the terms of the contract (he does not deliver the goods, he delivers defective goods).

Factoring gives companies the cash they need to perform their activities. They do not have to have funds tied in receivables. Factoring thus becomes an alternative source of funding.

Advantages of factoring [8]:

- The possibility of financing up to the amount of app. 90% of the nominal value of claim,
- utilization of the means according to the value of supplies and hence the invoices as well,
- use of outsourcing related to the administration, collection and debt recovery,
- the existence of a guarantee against insolvency of customers,
- funds provided by the factoring company can be used for any financial needs, unlike a loan.

8. Forfeiting

Forfeiting companies, just like factoring companies, purchase receivables from their clients. They differ from factoring companies mainly because they usually purchase receivables with a maturity of at least 90 days and make purchases even with maturity of several years (4 and more years). Another important difference is that the assigned receivables must have a security of some kind (e.g. documentary letter of credit, bank guarantees, respectively a co-acceptance draft).

9. Letters of Credit

Letters of Credit are used primarily in international trade transactions of significant value, for deals between a supplier in one country and a customer in another.

The parties to a letter of credit are usually a beneficiary who is to receive the money, the issuing bank of whom the applicant is a client, and the advising bank of whom the beneficiary is a client. Almost all letters of credit are irrevocable, i.e., cannot be amended or canceled without prior agreement of the beneficiary, the issuing bank and the confirming bank, if any.

The parties to a letter of credit are usually a beneficiary who is to receive the money, the issuing bank of whom the applicant is a client, and the advising bank of whom the beneficiary is a client.

Typical types of documents in such contracts might include:

- Financial Documents - Bill of Exchange
- Commercial Documents - Invoice, Packing List
- Shipping Documents - Transport Documents - Bill of Lading

Documentary Credit - more secure for seller as well as buyer.

The buyer can be confident that the goods he is expecting will be received since it will be evidenced in the form of certain documents called for meeting the specified terms and conditions while the supplier can be confident that if he meets the stipulations his payment for the shipment is guaranteed by bank, who is independent of the parties in the contract

2.2.2.3.3 Management of short-term financial assets

The content of short-term financial assets makes it clear that they are made up of financial means in cash or on deposit accounts, valuables and short-term securities.

The management of short-term financial assets should be carried out in terms of liquidity and profitability. The concept of **liquidity** expresses the ability of a company to convert its assets to money and to use it to cover all the liabilities fallen due in time, in the required form and in the required place.

Management of short-term financial assets should ensure:

- Sufficient funds in cash or on accounts to ensure the liquidity and solvency of a company (the ability of repayment of debts in due time). These are low-profit funds,
- and therefore the rest of the finances should be put into selected short-term securities, which not only have higher profitability, but are also highly liquid (convertibility to cash).

A prerequisite of ensuring the liquidity of a company is the balance between expenditures and revenues in a short and long term horizon. In real business practice, the balance equilibrium between revenues and expenditures is ensured primarily through financial plans and their control. A properly balanced financial plan is an essential prerequisite to maintaining ongoing liquidity.

Liquidity condition can be formulated as follows [3]:

The available funds (money that is available for the payment of liabilities fallen due) must equal the due expenditures.

The main rules of through liquidity may include [3]:

- Avoid delays in payments of liabilities fallen due,
- avoid exceeding the credit facilities,
- optimal use of credit limits,
- avoid idle funds,
- regulate cash flow (acceleration of revenues and deceleration of expenditures),
- provide flexible short-term sources of funding,
- build information systems that support the transfer of money.

Liquidity management in companies uses the so-called payment schedules. It is focused on the monitoring of revenues and expenditures within a company in a time sequence and possible levelling of the lack of financial resources. The lack of financial resources in a given period of time may be offset by the utilization of the so-called **liquidity management tools**, including, for example:

- Mutual control and balancing of maturity of supplier and customer invoices (extending the maturity of supplier invoices, shortening the maturity of customer invoices),
- advance payments from customers,
- bank loans,
- leasing,

- factoring, forfeiting.

The basic tools ensuring liquidity include [3]:

1. Planning of revenues and expenditures,
2. balance of movements, including working capital and its valuation,
3. cash-flow.

1. Planning of revenues and expenditures

Revenues – increments of company funds in certain period of time.

Expenditures – decrements of company funds in certain period of time.

Any activity of a company has two sides, namely **physical** (material, property) and **monetary** (financial) one. The physical side of company activities involves the flow of goods (raw materials, materials, machinery, finished products), and it can be divided into three main activities: procurement, production and sale (this applies in full only to a production company). All three activities must be secured by financial resources (money). Cash flow has the form of payments, either in the form of revenues or expenditures. The flow of money has reversed direction compared to the flow of goods: procurement and production are associated with spending money, while sales are associated with revenues. Apart from these basic payment flows that are associated with procurement, production and sales, we also know other financial flows that are associated with the distribution of profit (dividend payments), research, development, technical development, investments, etc. Both sides, physical and financial, must be consistent, both to acquire material goods (if they do not represent a direct deposit themselves - such as land, buildings, equipment) and also to facilitate all the company activities, and the two sides must be secured financially. [9]

2. Balance of movements, including working capital and its valuation

A company cycle, in which money is converted into material, inventory, and finished goods, which are subsequently transferred into more money, is called a cash or turnover cycle, see Figure 2. [9]

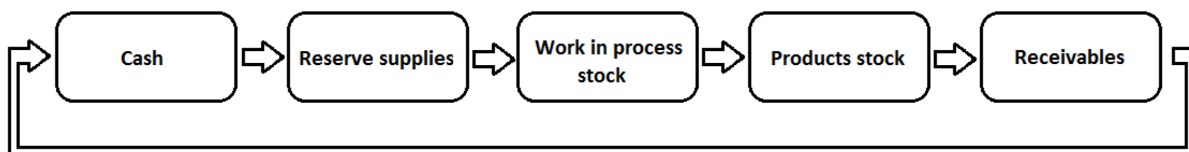

Figure 2: Cash cycle

A cash cycle indicates how much and for how long you need to invest into production in order to realize an order. Assuming that this issue will be solved at the level of the entire enterprise and a short-term operational stability of the given company, we can talk about **working capital management**. The short-term operating stability does not meant a period of a few days or weeks, but rather a period of months and years. [9]

Company turnover cycle (CTC) is generally determined as [10]:

$$CTC = \text{inventory tie-up period} + \text{debt collection period} - \text{short-term debt maturity date}$$

There is a direct proportion saying the longer the turnover cycle, the higher the need for money to cover the expenses during the cycle period. That is why there is a clear effort to reduce the turnover cycle, so as to reduce the use of resources.

All the items included in the cash cycle belong to **working capital**. In practice, **working capital** has the form of available funds, entrusted to managers and it is used to finance the common needs. If company cash flows are in accordance with the financial plan, the level of working capital is maintained at a relatively stable level. Working capital thus represents an excess of short-term assets over short-term debts, i.e. the part which is financed from long-term financial resources. Since long-term capital is not due immediately, this part of short-term assets is available to the company management for their entrepreneurial activity. However, it is necessary for the working capital to be in liquid form (cash, marketable securities). [8]

3. Cash flow

Cash flow can be characterized as a flow of funds (their gain and loss) of a company for certain period of time related to its economic activity. Cash flow is an important element of financial management and financial analysis of a company and it is directly related to provision of liquidity.

Cash flow characterizes the change of the state of funds of a company for certain period of time and the reasons for this change. The concept of cash flow is based on the categories of financial revenues and expenditures of a company, not on the concept of earnings and costs of a company. In addition to that, total cash flow also includes financial revenues and expenditures related to the changes in short-term assets, fixed assets, financial assets and the changes in foreign and net worth. [3]

In financial theory and practice, we can come across various categories of cash flow, which differ in their content, or method of calculation. We typically distinguish [3]:

- Cash flow from operation activity,
- cash flow from investment activity,
- cash flow from financial activity,
- total cash flow.

Summary of the terms from the given chapter

- Short-term assets
- inventory structure,
- receivables,
- short-term financial assets,
- short-term assets valuation,
- preventive security of receivables,
- supply cycle,
- working capital,
- cash flow,
- liquidity,
- revenues, expenditures.

Questions

1. How can we define short-term assets?
2. What is technological inventory?
3. How can we define goods?
4. What are the basic factors influencing the requirements of short-term assets in a company?
5. What is indicated by the number of turnovers of short-term assets?
6. Name the fundamental reasons why companies keep buffer stock?
7. What is credit information?
8. How can we define liquidity?
9. Name the main principles of through liquidity management.
10. Does cash-flow belong to the basic tools providing liquidity?
11. Is the statement saying that cash-flow has reversed direction than the flow of goods correct?
12. What is a cash or turnover cycle?
13. How can we define working capital?
14. Is there a direct proportion between the length of turnover cycle and the need for money to cover these expenses during this time?

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[11] Act no. 513/1991 of the Coll., Commercial Code.

2.3 FINANCIAL STRUCTURE OF ASSETS

Study time: 2 hours

Objective

Once you have studied this paragraph, you will be able to:

- Define the financial structure of company,
- describe foreign capital and its structure,
- name the selected types of credits,
- explain the equity and its structure,
- define net working capital.

Presentation

As mentioned in Chapter 3.1. Balance Sheet, the structure of liabilities is referred to as the financial structure of company. The term capital structure usually refers to the composition of long-term liabilities - long-term resources of a company. Above all, it includes the equity and long-term liabilities and credits. The term capital structure is therefore a narrower term when compared to the term of financial structure. [1]

The financial structure of a company is the structure of company capital, which is used to finance the assets of company and it is recorded in liabilities. [1]

A capital of a company is the sum of sources which are used to finance the company assets. Capital intended for entrepreneurial activity is divided according to ownership into equity and foreign capital, and according to time into short-term and long-term, see Figure 3. [3]

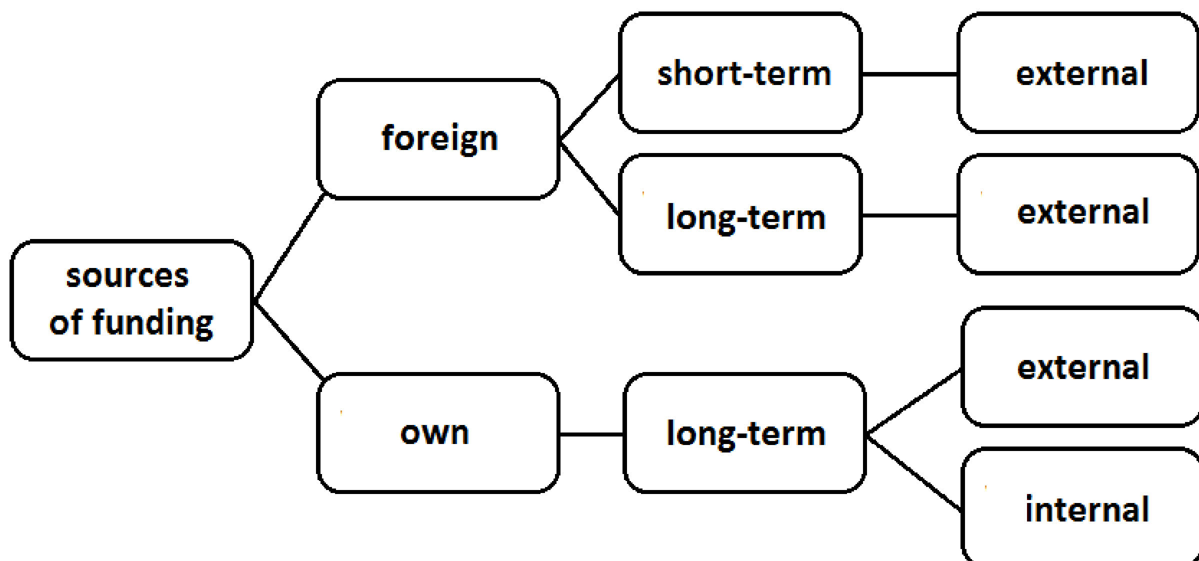

Figure 3 Division of financial resources [3]

2.3.1 Structure of equity

Structure of equity:

- Nominal capital,
- capital funds,
- reserve funds, indivisible fund and other profit-based funds
- income from operations from previous years and from the current period.

Own resources of settlement are those resources the enterprise itself puts into the business. Equity is the capital that belongs to the owner (owners). It is the main carrier of business risk. Its share on the total capital is therefore an indicator of financial security (independence) of the company. Equity is not a constant quantity, but it varies according to the income from operations. If a company achieves a profit (and it is not completely consumed by the owner), the equity increases, if a company suffers a loss, the equity decreases. [1]

Nominal capital is a typical own source of settlement. Nominal capital consists of cash and noncash investments of partners (shareholders) into company. In limited liability companies and joint stock companies, it is mandatory and the amount is entered in the Register of Companies.

Funds can be divided into:

- Funds created **from profit** (e.g. reserve fund and various stimulus and social funds),
- **capital funds**, arising, for example, as a result of acquisition of property free of charge, or during capital investments into company, which do not increase its nominal capital.

Funds created from profit are created by law (in limited liability companies and joint stock companies - legal reserve fund, in cooperatives – indivisible fund), or their creation is defined by the articles of association (statutory and other funds). They serve as insurance against unforeseen risks in business, and they are used to cover the losses and overcome unfavourable economic course of a company (that is why they are referred to as reserve funds). [1]

Own resources, especially **equity** and **capital funds**, are private resources of the owners and their size depends on the financial capabilities of the owners. [2]

Own resources also include **retained income** (profit / loss) **of previous years and the income of the current accounting period** (profit / loss). Retained income (profit) is part of the profit after tax, which is not divided among owners (shareholders), but is used for further business activities.

2.3.2 Structure of foreign capital

Structure of foreign capital:

- Long-term liabilities,
- short-term liabilities,
- bank loans - long-term and short-term,
- reserves,
- estimated accounts (payable and receivable).

Receivables and **liabilities** are divided into long-term (maturity exceeding 1 year) and short-term (maturity of up to 1 year). It is also possible to divide liabilities into liabilities arising from

business relations, related to partners, controlled companies, social security and health insurance, employees and taxes.

Bank loan is the most common form of financing. Loans in terms of maturity can be divided into:

- Short-term – maturity up to 1 year,
- medium-term – maturity of 2-3 years,
- long-term – maturity of 5 and more years.

❖ **Bank loans**

Banks offer many different loan options to entrepreneurs. We can say that as far bank loans are concerned, they represent one of the primary methods of company financing. Loans can be divided according to their recipient, according to the purpose the loan is intended for, or according to maturity.

Among the loans divided according to the purpose how the funds are used, we can distinguish three basic types: loan for operations, bank overdrafts and investment loans. [3]

Loan for operations is mainly intended to finance operations of a company. It is the most common tool used to obtain funds, whose purpose is to overcome the critical periods and to finance account receivables. [4]

Bank overdraft is provided by a bank to overcome the time gap between revenues and expenditures of the company, respectively to finance receivables and inventory. There is no specific purpose defined in order to allow you to use a loan. The prerequisite is a short-term and repetitive use. It is therefore used to finance unforeseen financial problems. The loan can be repaid under the conditions of contractual documentation; the disadvantage in this case is high rates resulting in high costs. [4]

Investment loan is a long-term loan and a bank provides it for certain specific, defined purpose, usually to finance the purchase of fixed assets, which is why it will not be suitable for a company requiring rapid solutions of the financial situation.

Foreign resources also include **reserves**. They are intended to finance expenditures in the future (e.g. the repairs of buildings and equipment, bad debts, exchange rate losses) and they are used to cover the business risks. They are created on the account of costs, which sets them apart from reserve funds generated from profits. [1]

When monitoring and managing the financial structure, the most essential aspect is the **ratio of equity and foreign capital** and the cost of obtaining the individual forms of capital. In case of debt financing, company management has to decide on the amount and duration of debt, because a debt can be short-term or long-term and can have different conditions when being concluded. The task of economic personnel in a company is to propose the individual financing alternatives, to analyze them, and to choose those that are most suitable not only in relation to the expectations of the management, but also the real possibilities. [1]

There is no formula how to find an optimal capital structure. They are just different factors that need to be taken into account when selecting the capital structure. [5]

In general, experts recommend combining foreign sources of financing with your **own resources**. The ratio depends on each company, on the situation it is in, on its financial management, the size of the company, and it also depends on the industry branch the firm is engaged in.

Foreign capital is used for various reasons [6]:

- Company temporarily does not have the necessary capital at the time when it is required (for example, when buying raw materials, stockpiling before the season),
- foreign capital also allows performing actions that can´t otherwise be performed,
- foreign capital is usually cheaper than equity and its use therefore increases the profitability of company,
- interests from foreign capital reduce the tax burden of a company, because interest as part of the cost reduces the taxable profit; it causes the so-called **tax effect** (**tax shield**). Debt financing provides an advantage in the income tax system. Cost interests are deductible from the tax base of a company. The taxable base is lower thanks to the effect of costs interests, so, consequently, the calculated tax is lower as well.

2.3.3 Relation between the structure of assets and capital

The structure of assets and capital is closely related. The structure of assets corresponds to capital, its distribution, and the method of acquisition of resources. There are some theoretical rules applied in order to establish an optimal assets and capital structure, i.e. to find the correct proportion between the assets of the company and its resources of settlement. The company should have just as much capital as it needs. If it has more capital - overcapitalization, it can disrupt the efficient use of capital. Under-capitalization represents a major problem in the Czech Republic. Companies expand their assets, which are not adequately covered. The company runs into debts with its suppliers, and short-term foreign resources also cover the fixed assets, and the company could face unfavourable payment situation. This ratio is theoretically governed by the so-called "**golden balance rule**", which recommends covering fixed assets and part of short-term assets using equity and long-term liabilities. [1]

Fixed assets consist of property, which is intended to be used for a period exceeding one year. Their sale in the near future is therefore not desirable and, in the event of financial distress, it is also hardly possible in a short time and at a reasonable price. That is why fixed assets should be financed by long-term capital. [1]

The used capital should therefore correspond to the degree of liquidity of the individual forms of property. This means that long-term assets (fixed assets and permanent part of short-term assets) should be financed by long-term capital (equity and long-term foreign capital). Part of long-term capital, which covers the permanent part of short-term assets (at least the minimum inventory level) is referred to as **net working capital** in financial analysis. Figure 4 shows it as a **positive net working capital**. Sustainable financial situation may also exist in companies where long-term capital covers only fixed assets - in the graph, it is expressed as a zero net working capital, see Figure 5. Payment difficulties arise in enterprises having **negative net working capital** for longer period of time, see Figure 6. [1]

Positive net working capital = Long-term capital – Fixed assets > 0

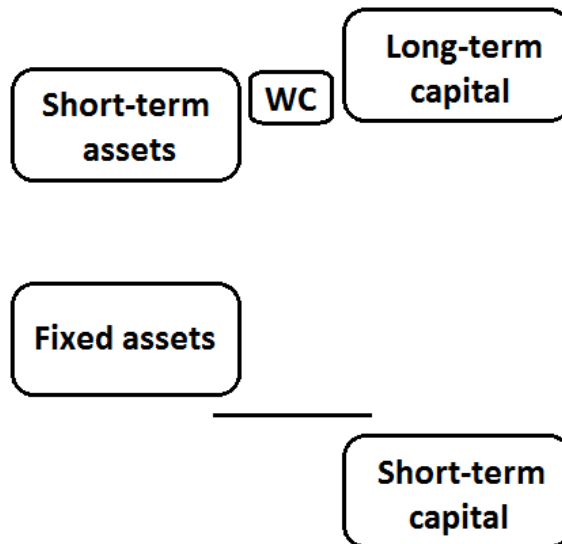

Figure 4: Positive net working capital

Zero net working capital = Long-term capital – Fixed assets = 0

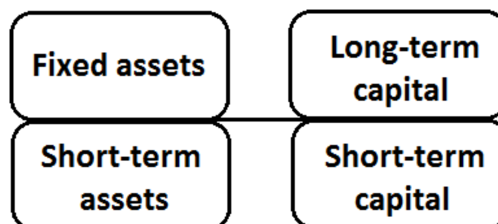

Figure 5: Zero net working capital

Negative net working capital = Long-term capital – Fixed assets < 0

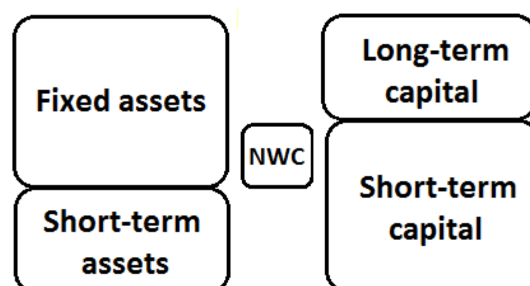

Figure 6: Negative net working capital

Summary of the terms from the given chapter

- Financial structure of company,
- liabilities,
- nominal capital,
- funds,

- income,
- loans,
- accounts payable,
- reserves,
- Net working capital.

Questions

1. How can you characterize liabilities?
2. What is nominal capital?
3. What kinds of accounts payable are recorded in the balance sheet?
4. Is equity a constant variable?
5. What types of loans do you know?
6. What are the root-causes of the use of foreign capital?
7. What is the name of the part of long-term capital that covers the permanent part of short-term assets?
8. How can we define positive net working capital?

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3 COMPANY COSTS

3.1 CLASSIFICATION OF COSTS

Study time: 2 hours

Objective

Once you have studied this paragraph, you will be able to:

- Define costs,
- classify costs,
- define the same homogenous types of groups of costs within the scope of the division of the types of costs,
- illustrate the differences between flat costs and overhead costs,
- express the crucial difference between direct and indirect costs,
- describe a typical costing formula and its individual items,
- explain the question: How will the amount of costs, revenues and profit change in a company if we increase sales volumes of a concrete product by …%?

Presentation

Costs represent a monetary expression of consumption (as well as wear) of live and substantiated work. Costs therefore represent a monetary expression of consumption and wear of production factors. In business practice, costs play an important role and this is the reason why a number of management decisions must be based on the analysis of actual costs. [1]

Costs are one of the basic economic categories, whose content should be correctly understood, utilized in various aspects of the business process converting input economic resources into the required performances. At the same time, however, they should be thoroughly analyzed for the purpose of rational management and decision-making of entrepreneurial entities. [1]

In managerial accounting, costs are defined as an effective and purposeful consumption of economic resources in terms of value. They are viewed from the perspective of two aspects, purposefulness and effectiveness. Purposefulness is emphasized as a target focus of each incurred cost, when a particular performance acts as the ultimate cause of incurred costs. Effectiveness expresses the economic adequacy and rationality of incurred costs, the convenience and economic necessity of the amount of performances. [2]

For the purpose of practical management, costs must be sorted in a more detailed form according to certain criteria. The classification criteria may be different and are determined by the

reason of monitoring of costs. The main aspects of the classification of costs in a company include their classification according to:

- Cost types,
- items of costing models and costing units,
- dependence on the volume of production,
- the place of their origin and the areas of responsibility.

❖ Classification by elements of costs

A classification of the elements of costs means their concentration into homogenous groups of the same type - cost types. Homogeneous cost types are in particular:

- Consumption of materials and energy,
- services purchased from external suppliers (energy consumption, repairs, communications, advertising costs, rent, travel expenses),
- depreciation (depreciations of tangible and intangible fixed assets),
- personnel costs (wage costs, social security costs, social costs),
- taxes and fees and other operating expenses (fines, penalties, interest on delayed payments),
- financial costs (costs interest),
- creation of reserves and adjusting entries to operational and financial costs,
- exceptional costs (shortages and damages).

The above presented cost structure shows that the type classification essentially captures external costs, i.e. costs arising from consumption of resources and labour, which the company acquires by purchasing. These costs have the character of simple costs, they can´t be further divided within the frame of the given cost type.

A classification of costs into types provides answers to the questions from whom, when and how it is necessary to ensure materials, energy, external services and other economic resources. However, it does not provide information about whether the cost was incurred economically, efficiently and effectively. A classification of costs into types does not express the reason of incurred costs. That is why at lower corporate levels this classification of costs is combined with other classifications. [3] A classification of cost into types is used in cost reporting and in profit and loss account. [4]

❖ Costs classification by products

From the perspective of the need to determine the effectiveness of the performed operations (activities, performances), the classification by elements of costs is unsatisfactory. Costs classification by products is used to determine the relationships of the individual types of costs with the individual performances (products, activities), thus creating a basis for the detection of effectiveness of these performances. The most important cost classification by products in practice is the division into **flat costs and overhead costs**. [5]

Flat costs are presented by technological costs that are directly related to a unit (ton, kg, 100 km , ...) of partial or final output (product), or a specific operation, which can also be calculated using the specific energy consumptions (standards). Information on these costs can be obtained from calculations, where, for example, the specific consumption of a continuous casting product is

specified in kg per ton of a concrete rolled product (e.g. reinforcing steel rib diam. 12 mm), the production volume of a product in tones and the price of a continuous casting product in CZK/kg. [5]

An example of flat costs: entire consumption of raw materials used for production of products based on formulas or a bill of materials, wage costs of workers associated with the production of one type of product in one time period (lathe operator producing one type of product on one lathe in the given period of time). [6, 7]

Overhead costs include that part of technological costs, which is not related to a unit (ton, piece, meter,...) of partial or final output (product), or a specific operation, but to a technological process as a whole and overhead costs also include the costs of operation, assurance and management (production).

An example of overhead costs: lubricants and oils for maintenance of production equipment, electricity for lighting, heating, depreciation of fixed assets, maintenance costs, costs of labour associated with the production of several types of products in one period of time (lathe operator working on more computer-controlled lathes in the given period of time, which work more types of products), wage costs of non-production workers, cost of service and support centres, etc. [5]

Overhead costs in a company are usually divided according to the functions they perform during operation, assurance and management of the production process, and they give rise to [8]:

Operating overhead costs

- Costs of provision, operation and management of production and that part of technological costs which is not related to a specific unit of partial or final performance.

Acquisition overhead expenses

- Costs related to the acquisition, storage and issue of material.

Administrative overhead expenses

- Costs related to the administration, management and organization of a company as a whole or its individual separate parts.

Distribution expenses

- Costs associated with the storage of finished products and their preparation for dispatch (packaging, labelling), costs associated with the preparation and realization of sales performance (product, service).

❖ Costing classification of costs

The allocation of costs to the final or partial performances is called costing classification of costs. Costing classification of costs can be described as a special type of purposeful classification of costs. In terms of causal links of costs and performances, which is precisely specified in terms of type, quality and volume (i.e. to a costing unit), and in terms of practical calculation and technical possibilities of allocating costs to a concrete performance, we can distinguish two main groups of costs. [9]:

- **Direct costs** - costs incurred in connection with a particular performance or centre to which these costs can be directly assigned (consumption of material that is used directly in the

product, costs of labour of a worker who works on one product only, depreciation of equipment specialized to only one product, etc...),
- **indirect costs** – related to several performances or centres. They are therefore allocated using cost-allocation bases or keys (administrative costs, they may also include costs that are common to multiple performances of the company).

Direct costs can be defined as costs that can be related to a cost object (e.g. product). On the contrary, **indirect costs** can´t be related to a specific activity for two reasons [10]:

- Either an exclusive link between the cost and object does not exist, then it is an overhead cost,
- or this exclusive link can´t be identified (e.g. it is not possible to determine the actual consumption of adhesive as an auxiliary material for bonding concrete wooden products).

Direct costs can be defined as costs that are directly associated with a concrete kind of performance and indirect costs as costs that are not bound to one type of performance, or they ensure the production process flow. That is why indirect costs are budgeted (scheduled) to individual performances according to some selected cost-allocation bases. These costs cannot be attributed directly to a performance, but they must be allocated indirectly, which can be done by adding the base chosen in the schedule. [6, 7]

The required base must have especially the following features [3]:

- It should be a variable to which the allocated costs have the maximum extent of causality relation in terms of their total amount and changes,
- it should be large enough, so that small fluctuations within its range do not cause excessive fluctuations in the allocated cost per costing unit,
- the ratio between the allocation base and the allocated costs should be relatively stable, so that there is proportionality between them,
- it should be simple and easily identifiable and controllable.

Direct costs are the flat costs and part of operating, supply and sales overhead costs associated with a concrete performance. **Indirect costs** represent the remaining part of the main production centres costs and other overhead costs. In the past, indirect costs represented just a fraction of the total costs. Currently, on the contrary, the ratio of direct costs has been reduced and we have witnessed an increase of indirect costs in proportion to the total costs. This trend is a logical response to the changes in the global economy. The pressure of competitiveness of production forces companies to develop new technologies that are designed to ensure more efficient production, supply flexibility and sufficient production capacity.

The subject of **costing** should in principle include any performances, whether final or partial, which are carried out in a company. The subject of costing is defined by the costing and calculated quantity.

Costing unit - is a concrete performance, which is defined by a measuring unit, type, to which the costs are determined and ascertained. **Calculated quantity** - consists of a certain number of costing units for which the total costs are determined or ascertained.

The aim of costing breakdown of costs is to determine the amount of costs attributable to a particular performance, i.e. a particular product, work or service, namely to their costing unit (e.g. tone, piece). This breakdown of costs requires you to assign all costs to the appropriate bearer (the

aspect of causation), as well as to take into account the possibility of calculation and technical allocation of costs to the given performance (the aspect of attribution). [11]

The basic structure of costs in the costing breakdown can be characterized using the so-called type costing model having this basic form [10]:

+ Direct material

+ Direct wages

+ Other direct material

+ Operating overhead costs

Production prime costs (operation)

+ Administrative overhead costs

Performance prime costs

+ Distribution costs

Total performance prime costs

+ Profit (loss)

Price of performance (basic)

Price of performance is the price we are going to sell the given performance for (the price excludes VAT).

Short characteristics of the individual items of the costing formula:

- **Direct material** - this section includes all raw materials, basic materials, semi-products, auxiliary and other materials whose consumption can be determined (ascertained) directly to a costing unit.

- **Direct wages** - this item includes wages, which can be determined (ascertained) directly to a costing unit. These are usually wages of production workers (piece-work and time), including the wage supplements and additional wages and bonuses and rewards included in the costs.

- **Other direct costs** - this item includes other major technological, respectively different costs associated with the production process that can be economically assign directly to the individual costing units. They include, for example, technological fuel and energy consumption, depreciations of special tools and jigs in use, or depreciations of other components of fixed assets, social security and health insurance paid by the employer, included in wages under direct wages, etc.

- **Operating overhead costs** - this item includes the costs related to the management and operation of the production process, which cannot be determined (ascertained) directly to a costing unit, for example, a consumption of overhead material, fuel, depreciations of capital assets, overhead wages, insurance related to these wages paid by the employer, and various other purchased services .

- **Administrative overhead costs** - this item includes all costs related to the administration and management of a company.

- **Distribution costs** - this item includes the costs associated with distribution activities, particularly the sale and dispatching of products.

From the **methodical** point of view, **we divide costing** into:

- Progressive calculation where the consumed semi-finished products from company´s own production from previous stage are valued during the calculation of a subsequent stage, using the prime cost of performance, and they are presented as a single entry in the calculation,
- running costing, where the consumed semi-finished products or other performances from the previous stages of production are reported in the costing breakdown of a given costing model, i.e. in the individual original cost items.

Costing composition is complicated by the problem of an increasing share of overhead costs, where the assignment to performance is often problematic. The individual types of costing methods usually differ by the way of allocation of overhead costs and the purpose the costing will be used for. There are several variations of cost calculations which differ in their application in an enterprise [10]:

- **Preliminary costing** - in the time of its creation, the information on the volume of inputs a particular product or service consumed is not available yet. To some extent, this is an estimate of the future costs to a cost object. Within the scope of this calculation, we sometimes distinguish estimate costing (an estimate of future costs of new products or a price quotation), plan costing (more detailed than estimate costing, it is based on a relatively accurate estimate of consumption of inputs, it is used primarily for accurate planning of operations),
- **actual costing** – it is drawn for the retrospective evaluation of economic efficiency (assessment of whether the actual amount of consumed inputs reflects the estimate that was made before the start of the process), which can act as a controlling element,
- **operational costing** – it is compiled mainly during the production of a series of products, primarily in order to reflect the changes in the level of direct costs caused, for example, by changing procedures and setting the machines.

Possible utilization of cost calculations:

- Basic documents for pricing of products, works and services,
- the preparation of cost budgets of economic centres,
- monitoring and analysis of efficiency of production,
- comparison and evaluation of the development costs in the time series,
- preparation and control of profitability of the individual products, works and services,
- basis of the optimization tasks.

❖ Breakdown of costs according to the relation to change of performance volume

The breakdown of costs in relation to the volume of performances is perceived as one of the most important tools of cost management. The basic form of this division is the breakdown of costs into **variable and fixed** (constant). This classification is also considered to be a specific tool of management accounting, because not only does it answer the questions related to the past, already consumed costs, but it also provides information on the alternatives of future development of these costs from the perspective of different volumes of output (production, activities). This breakdown of

costs provides answers to questions such as: "How will the level of costs, revenues, and profits change if we increase the volume of sales of a particular product by 10%?"

Variable costs

Variable costs change with the volume of output and are expended per unit of output. They arise in connection with dividable economic resources, with variable factors of production, the level of which can change in a short period of time, i.e. without a time limit (labour, material, energy, etc.). We usually distinguish three types of variable costs [4]:

- **Proportional**, their absolute amount in a period of time changes in direct proportion to the change of volume of output, so their share per unit of volume is constant,
- **digressive**, they increase together with the increase of volume of output during a period of time, but more slowly than the volume of output, so their share per unit of volume of output decreases with increasing volume of output, these are for example the costs of repairs and maintenance,
- **progressive**, they increase faster than the volume of output during a period of time, so their share per unit of output increases with increasing volume of output, these are, for example, wages for overtime work.

Proportional costs are the most common part of variable costs (VC) in practice, as shown in Figure 7 and Figure 8. Their amount is directly proportional to the volume of output (in pieces, tons, meters, ...). Proportional costs are primarily costs per direct material. [5]

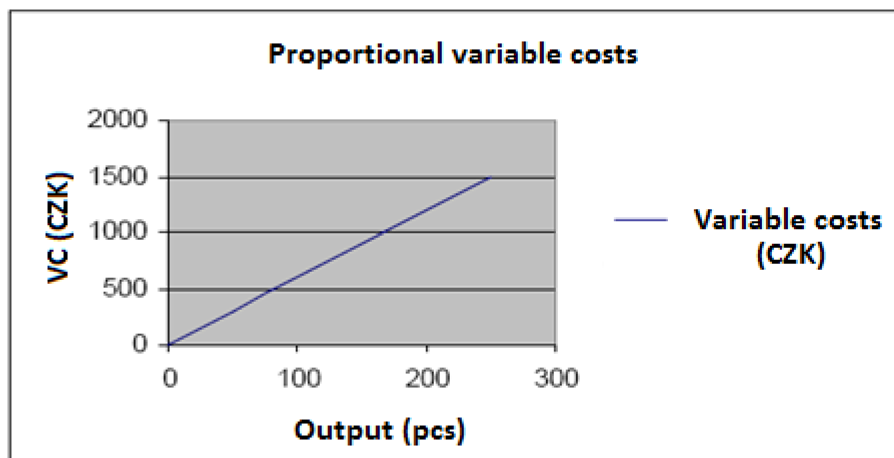

Figure 7: Proportional variable costs

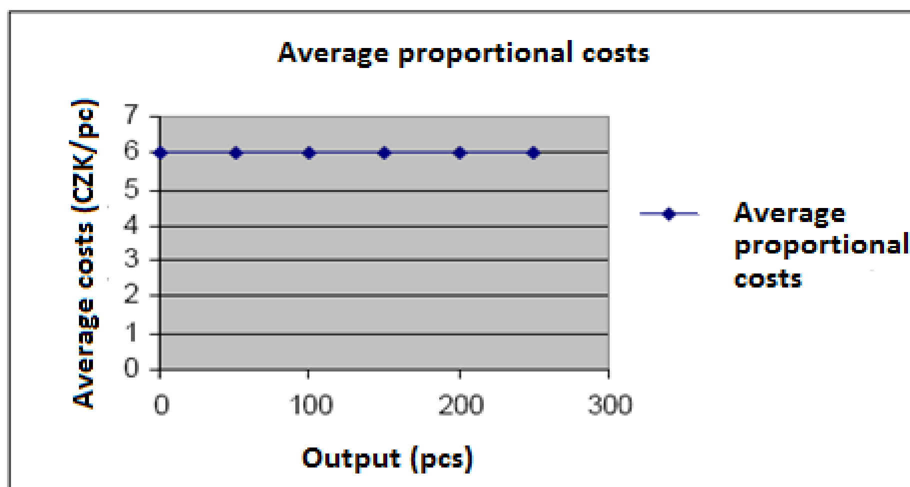

Figure 8: Average proportional costs

The so called **progressive variable costs** are less frequent in practice, see Figure 9 and Figure 10. The amount of these costs increases **faster** than the volume of output. For example, the cost of overtime work and work on days off, the consumption of petrol of a passenger car at higher travelling speed, etc. [5]

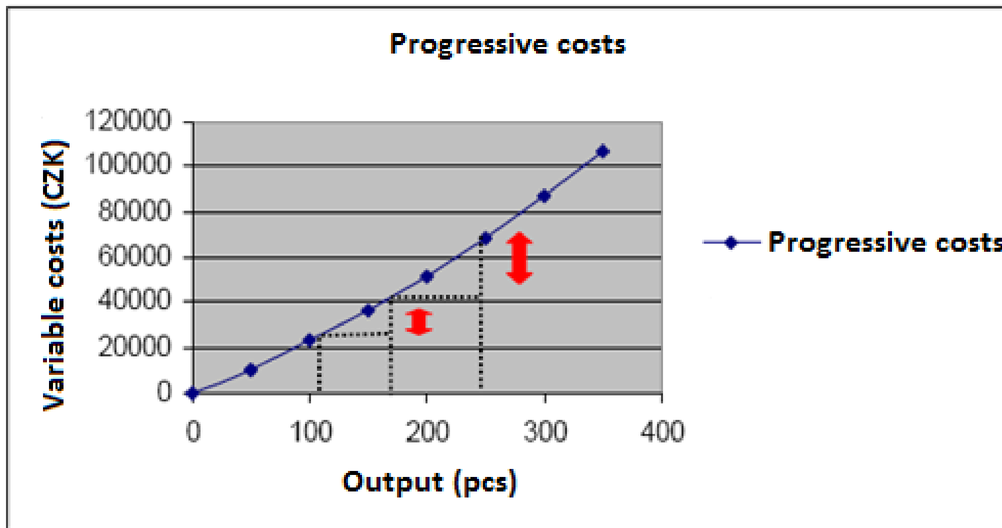

Figure 9: Progressive costs

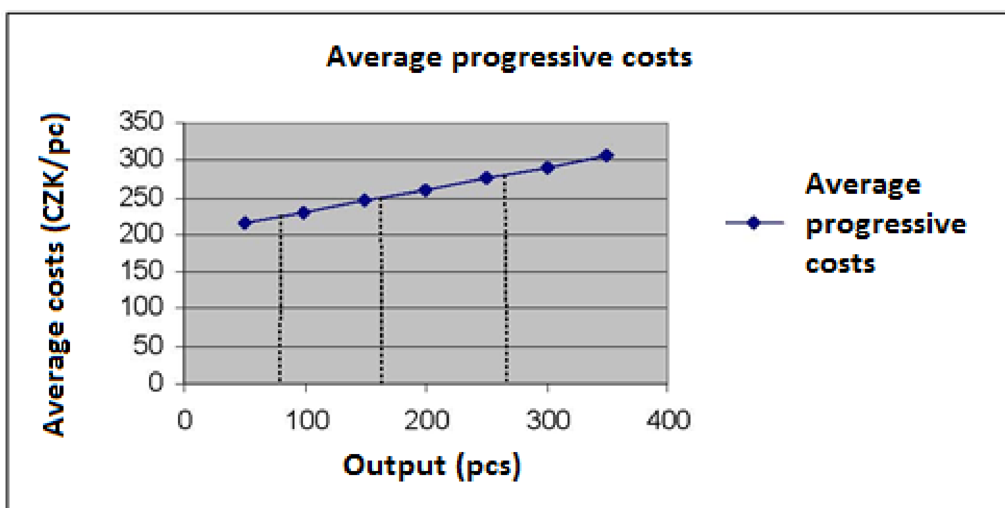

Figure 10: Average progressive costs

On the other hand, the so-called **regressive variable costs,** that shows an absolute decline with increasing production volumes or, vice versa, show absolute increase with decreasing volume of output. Regressive development costs are caused by various **technical factors** only in partial cost items - concrete cost types in the specific conditions of production processes. This development is not an option in case of the total costs. The examples include the costs of lining in industrial furnaces, where the reduction of production associated with production shutdown of these furnaces and thus with cooling, with the resulting increased wear of the furnace lining resulting in increased costs of lining (the lining is cracking due to cooling and heating cycle). Another example includes the consumption of energy supplied to support the course of certain exothermic manufacturing processes (particularly in the area of chemical production). The increasing production goes hand in hand with increasing spontaneously released energy, which is used to maintain the reaction

temperature and, simultaneously, with decreasing required amount of energy supplied to support the process. This also means a decrease of the cost of the energy supplied to support the exothermic reaction. [5]

A graphical presentation of a regressive cost is a curve showing a downward trend with increasing volume of output, as shown in Figure 11.

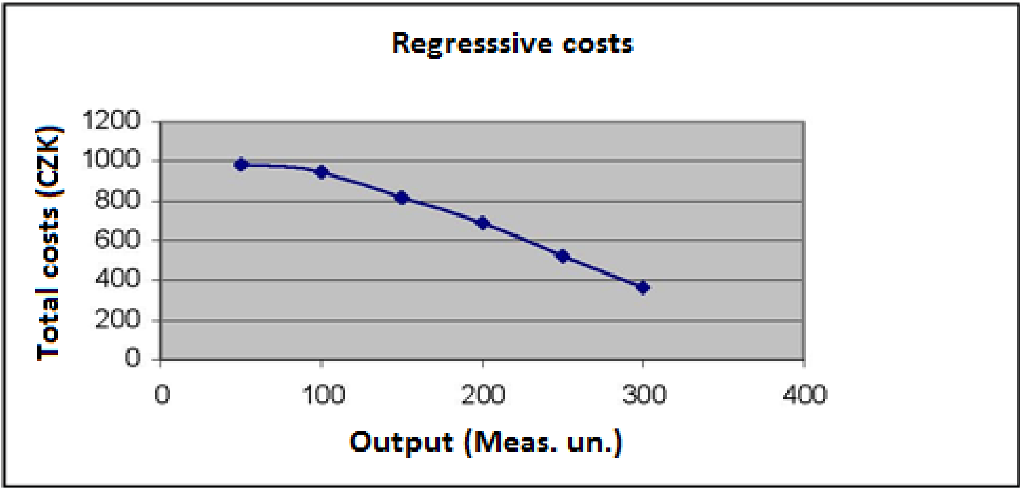

Figure 11: Graphical presentation of regressive costs

❖ Fixed costs

The amount of fixed (constant) costs **does not depend on the volume of outputs** (products, activities) within a certain production capacity they are capable of providing, see Figure 12 and Figure 13. Fixed costs therefore represent those costs that **remain constant** at different levels of volume of output over a given period of time. Fixed costs are most commonly represented by long-term production capacities (machinery, means of transport, buildings, etc.) that are actively involved in the production process.

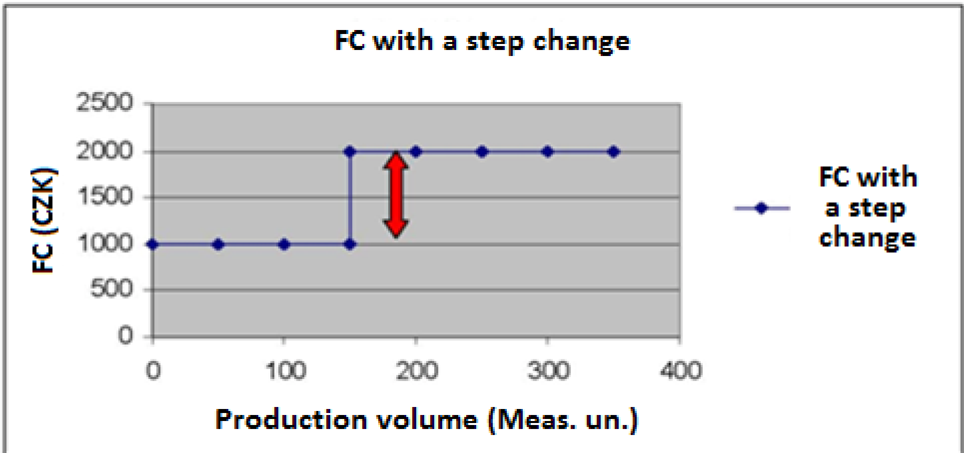

Figure 12: Relatively fixed costs with a step change

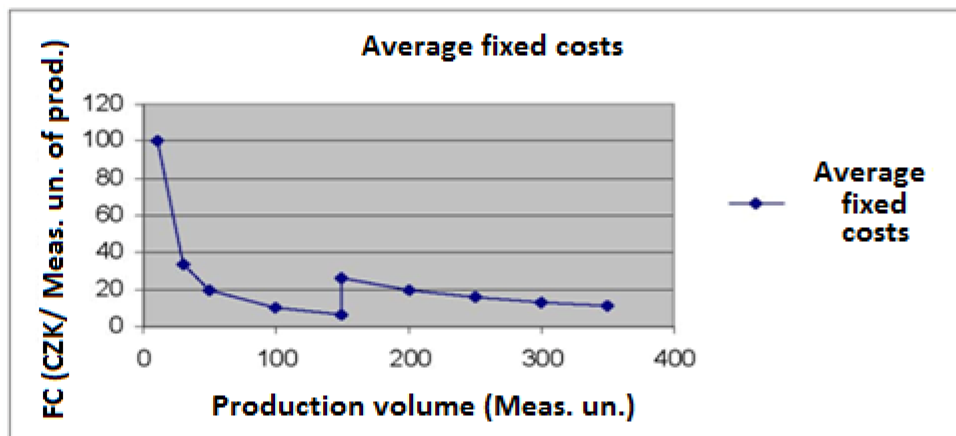

Figure 13: Average relative fixed costs with a step change

Fixed costs include for example [4]:

- Management staff salaries,
- overhead wages not closely related to the volume of output and the contributions to social security and health insurance associated to them,
- depreciation of tangible fixed assets and intangible fixed assets,
- rent (including rent for electricity and gas meters),
- office supplies,
- postal and telecommunication services,
- advisory services,
- costs of repairs and maintenance of tangible fixed assets, energy consumed which is not related to the volume of output,
- interests,
- taxes, etc.

Fixed and variable costs can be examined as units of different sizes, with a company being the largest degree of aggregation, production equipment being the smallest examined unit. The most accurate information is obtained if the selected investigated production unit is as small as possible, however, this process will be very time consuming and the effort often does not correspond to an adequate increase in the management quality of the process in question. On the other hand, if the selected investigated production unit is larger, we save a lot of work, but the results of an analysis will be very approximate. That is why it is necessary to look for an optimum size of production unit between the two extremes, which will be used to analyse the cost, usually it can be an economic, respectively cost centre. [11]

❖ Breakdown of costs according to the relation of cost and process and activities

The breakdown of costs into technological costs and the costs of operation, assurance and management of the technological process is used to determine the relations of the individual costs to company performances and their efficiency. Costs can be divided according to their basic relation to activity into [6, 7]:

- **Technological costs** - are caused by the technology of activities, such as the consumption of sheets for the production of steel structures,
- **costs of service and management** - are incurred for the purpose of creating, securing and maintaining the conditions of a rational course of activity, such as foreman´s salary.

Most technological costs are linked to performance, which is a result of a concrete operation or activity. Technological costs can be further divided into [6, 7]:

- **Flat costs** - related to the unit of partial performance,
- **overhead costs** - related to the technological process as a whole, they are incurred to ensure the technological process.

Technological costs arise in connection with the realization of technological operations, i.e., in direct connection with the production of concrete products, such as the consumption of wooden plates in production of furniture, continuous casting pigs in production of metallurgical profiles, flour in production of bread, but also the wages of production workers, energy consumed to power the production equipment, energy used to heat material intended to manufacturing of products, etc. Technological costs also include auxiliary costs, such as lubricants and fluids used to maintain the production equipment. **The cost of operation, assurance and management** arise in connection with the supporting activities of the production (technological) process, such as lighting of production halls, heating, management staff salaries, and the cost of cleaning. [5]

Summary of the terms from the given chapter

- Classification by elements of costs,
- costs classification by products,
- flat costs,
- overhead costs,
- costing classification of costs,
- direct costs,
- indirect costs,
- costing type formula,
- variable costs,
- fixed costs,
- costs according to responsibility for their origin,
- technological costs,
- costs of operation, assurance and management.

Questions

1. What is the basis of classification by elements of costs?
2. What cost breakdown can we use if we want to allocate the individual types of costs to the individual performances (products, activities), thus creating the prerequisite for assuring the effectiveness of these performances?
3. How are overhead costs in companies usually divided according to the function they perform in operation, assurance and management of the production process?
4. Which costs can be specifically related to a cost object?
5. What is the fundamental difference between direct and flat cost?
6. Under what conditions can variable costs also be overhead costs?
7. What items does type costing formula consist of?

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3.2 BREAK EVEN POINT

Study time: 1 hour

Objective

Once you have studied this paragraph, you will be able to:

- Define break even point,
- analyse break even point,
- present the relation between total costs and total revenues,
- calculate break even point,

Presentation

Break even point – represents such a volume of output (production, activities), in which the total revenues (sales) equal to the total costs, i.e. when neither profit nor loss is achieved. It limits

the profit and loss field of the volume of output (production). The break even point is also called a dead point, a critical point of profitability or a zero point.

Break even point analysis examines how a change in the volume of outputs in physical units changes the volume of revenues (sales), costs and profits in monetary units (CZK), and it answers the question of what volume of output is necessary for a company to cover variable and fixed costs and to start making profit. When you define the break even point, the crucial point is a clear division of costs into variable and fixed ones. [1] The simplest form of break even point analysis is shown in Figure 14. [2]

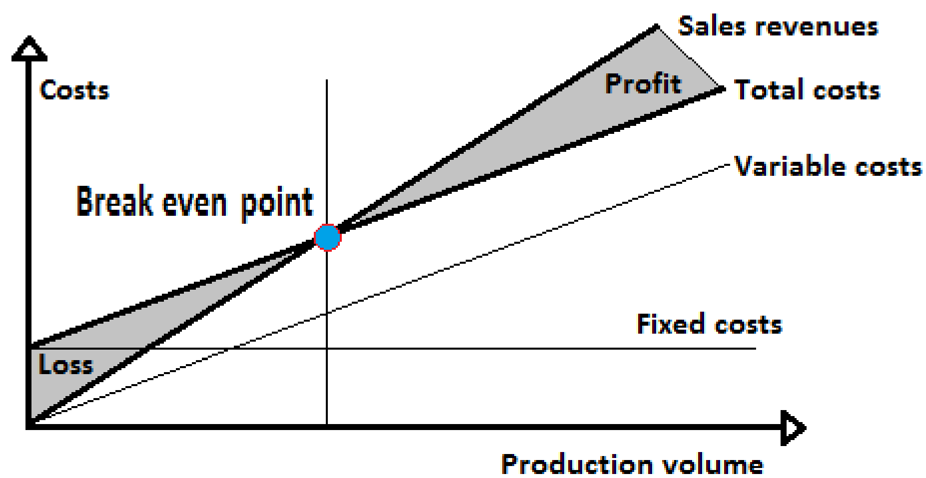

Figure 14: Break even point analysis

Calculation of sales revenues T (CZK)

$$T = p * Q \qquad (8)$$

p price per piece

Q amount (pcs, t...)

Calculation of total costs N (CZK)

$$N = FN + vn * Q \qquad (9)$$

$$N = FN + VN \qquad (10)$$

FN fixed costs

vn variable costs per unit

VN total variable costs

Calculation of break even point BZ (m.u.)

$$BZ = \frac{FN}{p - vn} \qquad (11)$$

Calculation of critical utilization of production capacity VKkrit (%)

$$VK_{krit} = \frac{Q_{krit} * 100}{VK_{celk}} \qquad (12)$$

Qkrit BZ – break even point

VKcelk total production capacity

Task to solve

Example

A metallurgical company produces 1,300 tons of cast pieces a year. The average price per tonne of cast pieces is 3,000, - CZK, fixed costs are 900,000, - CZK and variable costs per ton are 2, 000,- CZK. Calculate the break even point and the critical utilization of capacity under these conditions.

What will be the break even point if the company plans to make a profit in the amount of 55, 000, - CZK?

Solution

$$BZ = \frac{FN}{p - vn} = \frac{900000}{3000 - 2000} = \underline{900 \text{ t of cast pieces}}$$

$$VK_{krit} = \frac{Q_{krit} * 100}{VK_{celk}} = \frac{900 * 100}{1300} = \underline{69.23\ \%}$$

$$BZ = \frac{FN + Z}{p - vn} = \frac{900000 + 55000}{3000 - 2000} = \underline{955 \text{ t of cast pieces}}$$

$$VK_{krit} = \frac{Q_{krit} * 100}{VK_{celk}} = \frac{955 * 100}{1300} = \underline{73.46\ \%}$$

If we subtract the unit variable costs of output (vn) from the price of output (p) we obtain the amount (u) that remains with the company after the realization and sale of the output. This amount is used to cover the existing fixed costs in the first stage, and only after the number of performances is sufficient to cover the total fixed costs, the balance will contribute to creating a profit. In practice, the difference between the price and variable costs is called a contribution margin. As the name itself suggests, it is part of price of a product or a service that is used to cover the fixed costs and profit. [3]

A unit contribution margin can be calculated using the following equation:

$$u = p - vn \qquad (13)$$

u unit contribution margin (in CZK)

p unit price of performance (in CZK)

vn unit variable costs of performance (in CZK)

The determined contribution margins of the individual products or services and the break even point can help us to select which products to produce or provide, in what quantities, or to determine the limit for the change of price, sales volume in pieces, sales revenues, or the unit variable costs.

Summary of the terms from the given chapter

- Costs,
- sales revenues,
- break even point, critical point of profitability, dead point,
- contribution margin.

Questions

1. How would you define break even point?
2. Try to answer the question of how (why) the growth of total profit is reduced by production capacity.
3. A metallurgical company produces 1,500 tons of cast pieces per year. The average price per tonne of cast pieces is 6,000, - CZK, the fixed costs are 1,000,000, - CZK and the variable costs per ton are 4, 000,-CZK. The company plans to make a profit in the amount of 350,000, - CZK. Calculate the break even point and critical capacity utilization under these conditions.

References used

[1] DLUHOŠOVÁ, D.; MRUZKOVÁ J. Studijní materiály: *Analýza bodu zvratu*. Ostrava: EkF VŠB-TU Ostrava, 2006.

[2] KONRÁDOVÁ, M. studijní materiály: *Manažerské účetnictví a Controlling*, Ostrava: VŠP Ostrava, 2006.

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3.3 ACCURING OF COSTS

Study time: 1 hour

Objective

Once you have studied this paragraph, you will be able to:

- Explain accruing,
- define costs and expenditures of the periods to come,
- present an example of deferred expenses,
- present an example of expenses carried forward.

Presentation

The prerequisite of correctness and completeness of the reported income from operations and the state of assets of an accounting unit for current reporting period is to include all costs and revenues that materially belong to it into the current accounting period, and to exclude all costs and revenues that were realized in the accounting period, but they are related to next accounting periods. [1]

The time discrepancy between costs and expenditures (as well as between revenues and earnings) should be removed using the so-called accruing. In practice, there are two cases of accruing of costs that may arise:

- Expenditure took place in the current accounting period, but materially, as a cost, belongs partly into the next periods – these are deferred expenses,

- costs were incurred in the current period, but the expenditure takes place in the next period, these are expenses carried forward.

In business practice, there may be situations when certain financial expenditures, which may lead to the creation of costs in the company, are not directly related in time to the performances executed in the given (current) period. E.g., this may be a case when a payment of rent in different amount (higher first payment) is paid in advance for the lease of tangible fixed assets followed by their subsequent purchase. This fact would affect the income from operations in the individual years of the lease duration, as well as the calculation of the actual prime costs of the individual performances. In this case, the company is required to use the so-called accruing of the above presented uneven rent payments, i.e., evenly spread it into costs over the lease term. The total payment of rent paid in advance is recorded in the company assets as the so-called deferred expenses. On the other hand, the accounting records of the costs of the given period must also include such cost items that are usually related to the current accounting period (year), but the financial expenditure to cover them has not been realized yet, and it will be spent within the specified amount for the given purpose during the following period, e.g. a rent paid in arrears. Such items are included in the so-called expenses carried forward. [2]

Deferred expenses – are payments made during the current accounting period which are, however, related to the performances of the next period (or periods). The most common cases of deferred costs are [1]:

- Prepaid rent,
- irregular leasing payments,
- insurance premium if the instance and accounting period are not the same,
- subscriptions to newspapers and magazines paid at the end of the year for the next year,
- inclusion of small assets of larger extent into use.

Expenses carried forward – are payments made retroactively for performances of the previous period. The most common cases of expenses carried forward are [1]:

- Rent paid in arrear,
- bonuses and commissions paid after the end of the year.

Summary of the terms from the given chapter

- Accruing,
- deferred expenses,
- expenses carried forward.

Questions

1. How can we define deferred expenses?
2. How can we define expenses carried forward?
3. Try to use scholar literature or the Internet to find what specific examples of deferred expenses and expenses carried forward we can come across in a metallurgical company?

References used

[1] BŘEZINOVÁ, H., MUNZAR, V. *Účetnictví I.*, Praha: Institut svazu účetních, a. s., 2006.

[2] VOZŇÁKOVÁ, I, JANOVSKÁ, K, SIKOROVÁ, A., MYNÁŘ, M. *Ekonomika podniku*, Ostrava: VŠB-TU Ostrava, 2008.

4 INCOME

Study time: 1 hour

Objective

Once you have studied this paragraph, you will be able to:

- Define incomes,
- define sales revenues,
- define capitalization,
- classify incomes for the creation of financial analysis,
- define incomes and revenues of future periods,
- give an example of deferred incomes,
- give an example of prepaid incomes.

Presentation

Incomes represent a financial equivalent of the realized and valued performances of a company, including all activities and services provided by a company. It is important to realize that incomes do not match revenues, since not every revenue is an income at the same time. For example, received advanced payments, loans, etc. - are revenues but they are not incomes, because, they represent an increase of liabilities on the related account. It is necessary to distinguish between these two terms.

A collective of authors provides the following definition of incomes in their publication named The Accounting of Entrepreneurs 2009 "Incomes represent an economic benefit, for the given accounting entity, which is accounted as an actual claim (for example, the origin of a claim for delivered goods), regardless of whether the claim will be ultimately satisfied. On the other side of double-entry accounting entry, incomes are recorded as an increase of assets (money, receivables, products, etc.) or an increase in the value of assets (appreciation of corporate foreign currencies and exchanges, increase in the value of securities, etc.) ". [1]

Company incomes include above all:

- Sales revenues for actual performances (products and services) and goods,
- changes of company inventory level,
- capitalization,
- various other operating ones,
- financial incomes,
- extraordinary incomes.

In relation with accounting of company **sales revenues**, it should be pointed out that sales revenues arise as early as at the moment the terms of a performance delivery and invoicing are met, i.e. in many cases, much earlier than the invoiced amounts are paid by the customers. These items are also taken into account when calculating a company profit. When company receivables are high, which is unfortunately quite common at this time, the company may report high profit that is subject to income tax, but the company may be insolvent. [2]

Incomes also include **changes of company inventory level**. These are changes in the inventory levels of products, semi-finished products from company own production, and work in progress during the accounting period in question, valued by the prime cost of those performances. Such an approach is logical, because an increase in company inventory level means that the calculation of income from operations in the profit and loss statement compares the changes in company inventory level from production recorded in incomes with costs that were created as costs to cover this increase in company inventory level. [2]

Incomes also include **capitalized** performances, valued by prime costs as well. A company is obliged to capitalize its performances related to the acquisition of tangible and intangible fixed assets through its own activity, i.e. at its own cost, and it is also obliged to capitalize the in-house services according to accounting regulations (at present, it includes the costs of transport associated with the acquisition of inventory by purchasing). [2]

The breakdown of incomes, matching the breakdown of costs necessary for the creation of financial analyzes, divides incomes into operating, financial and extraordinary activities:

Operating activity incomes may include:

- Sales revenues for actual performances (products and services) and goods,
- changes of company inventory level,
- capitalization,
- various other operating incomes.

Financial activity incomes may include:

- Sales revenues from the sale of securities and shares,
- interests,
- exchange rate profits,
- incomes from revaluation of securities and derivates,
- incomes from long-term financial assets,
- incomes from short-term financial assets,
- other financial incomes.

Incomes from extraordinary activities may include:

- Incomes from a change of method,
- other extraordinary incomes (e.g. corrections of incomes from previous accounting periods, incomes arising due to termination or cession of economic activity of the company or its part, etc.).

Incomes as well as costs must be accounted for in an accrued form. In practice, there are two possible forms of accrued revenues:

- The income took place during current accounting period, but as a revenue, it is materially included entirely or partly in the next periods, these are deferred incomes,
- or a less common case, when unreceived prepaid incomes, representing amounts not collected by a company, which are related to incomes from current accounting period in terms of time and subject and were not accounted for directly in accounts receivable (e.g. income commission) by the book closing date (31st December), must be accounted for in the given period.

Deferred incomes are incomes received in advance for performances that will be provided during the next period. The most common cases of deferred incomes:

- Rent received by a lesser in advance,
- irregular leasing payments received by a leasing company,
- received subscriptions for magazines.

Prepaid incomes are the delivered unsettled (not invoiced) performances that belong to incomes of current period. The most common cases of prepaid incomes:

- Contractual income commissions,
- performed work and services that were not invoiced.

Summary of the terms from the given chapter

- Incomes – operating, financial, extraordinary,
- sales revenues,
- capitalization,
- change of company inventory level,
- deferred incomes,
- prepaid incomes.

Questions

1. How would you characterize operating activity incomes?
2. For what reason must incomes be collected in accrued form?
3. What are capitalized performances and why are they included in company incomes?
4. Try to use the scholar literature or the Internet to find which specific examples of incomes can be found in a metallurgical company?
5. What problems (in relation to the calculation of company profits) are associated with sales revenues accounting in a company?

References used

[1] AUTORSKÝ KOLEKTIV. *Účetnictví podnikatelů* 2009. 1st edition Praha: ASPI, a.s., 2009.

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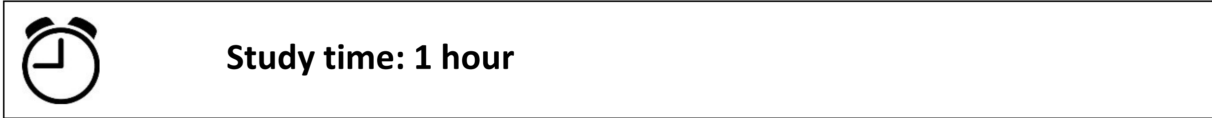
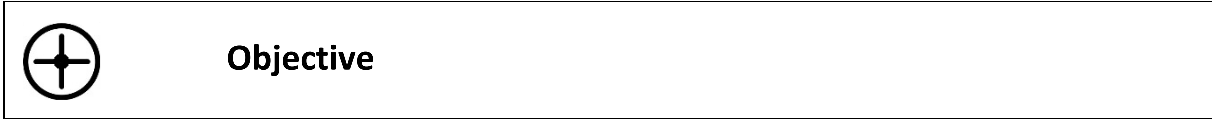
5 INCOMES FROM OPERATIONS OF COMPANY



Study time: 1 hour



Objective

Once you have studied this paragraph, you will be able to:

- Describe profit and loss account,
- classify the basic sections of profit and loss account,
- define sales margin,
- explain addend value,
- define operating income.

Presentation

An overview of costs, revenues and incomes from operations results during the year is determined in the **profit and loss account** (profit and loss statement). The income from operations is reflected in accounting as **profit or loss**, and it is the difference between incomes and costs during the current accounting period. The costs and incomes of a company (see Chapter 4 - Costs and Chapter 5 - Incomes) are the basis for the preparation of the profit and loss statement (in fact, they are primary costs classified by elements of cots). Costs and incomes must be recorded in the profit and loss statement in accrued form, i.e., applying the principle of material and time relevance with the period the incomes from operations are determined for. The formal structure of the profit and loss statement can essentially have two forms, either the left side of the statement shows costs and the right one incomes, or the individual cost and income items are arranged beneath each other, and the individual costs items are gradually deducted from the individual partial income items. [1] A profit and loss account (profit and loss statement) is shown in Table 7. [1]

Table 7: A profit and loss account

+ Incomes **- Costs** *** Partial incomes from operations**
+ Revenues from sales of products
- Costs spent on the sold products
**** Trade margin***
+ Performances = Revenues from sales of own products and services
- Performance consumption = Consumption of material, energy and services
**** Added value***

- Cost of staff
- Depreciation of fixed assets
+ Other operating incomes
- Other operating costs
**** Profit before interests and taxes – operating income***
+ Financial revenues
- Financial costs
**** Financial income from operations***
+ Extraordinary costs
- Extraordinary revenues
****Extraordinary income from operations***
*****Income from operations of current accounting period***

Profit and loss account is compiled vertically, which allows us to enumerate [2]:

- Operating income,
- financial income,
- income from operations of regular activity (operating + financial – income tax),
- extraordinary income from operations after tax,
- income from operations for the current accounting period (the accumulation of incomes from operations of regular activity after tax and extraordinary income from operations after tax).

The sum of the operating and financial incomes from operations makes the income from operations from the regular activity. Extraordinary income from operations is created by the income from operations from extraordinary activity. Incomes from operations from regular activity and from extraordinary activity together form the overall **accounting income from operations**. Given that the costs in the profit and loss account include the income tax, the output of the account is the so-called **income from operations for an accounting period**, i.e. profit or loss after tax.

Profit and loss account must be prepared by a company as part of its annual final accounts, i.e. to 31st December of each year. Most accounting units, however, prepare the profit and loss account throughout the year, e.g. on a monthly basis.

The transformation of accounting income from operations separately from regular and extraordinary activity into the tax base represents an adjustment of the income from operations by imputable items (e.g. accounting depreciation, travelling costs above the limit of travelling expenses, presentation expenses, gifts beyond the scope allowed by tax regulations, etc.), and deductible items (such as tax depreciation, adjusting entries and dissolution of legal reserves, etc.), especially under Act No. 586/1992 of the Coll., of the income tax. [3]

In addition to these three sub-sections and results, the section of profit and loss account where the operating income is determined also includes further partial income from operations, namely:

- **Trade margin,**
- **added value.**

Trade margin is the difference between the revenues from sales of goods and the costs of goods sold. It is essentially a net income from the business activity of a company - from the sales of goods. [1]

The difference between the performance line (the sum of all revenues from sales of products and services, capitalization, and the changes on inventory level of own production) and the performance consumption line (the sum of all costs for the purchase of materials, energies and services) represents the **added value** line. Total added value also includes the trade margin. This line must logically be positive, because revenues from the sales of goods and services should exceed the purchased materials and services, as well as the revenues from the sales of goods should exceed the cost of their acquisition. If the result is negative, it indicates problems in the company (except for special cases of introduction of new products or liquidation of the company), because the company is unable to cover the purchased materials, energies and services from the sales of its products and services, while there are still a lot of internal costs arising within the company, such as wages of workers, depreciations and other operating expenses. [1]

Summary of the terms from the given chapter

- Profit and loss account,
- costs,
- incomes,
- trade margin,
- added value.

Questions

1. How would you characterize income from operations in the current accounting period?
2. What is the main task of the profit and loss statement?
3. How can we define trade margin and what does it express?
4. How can we define added value and what does it express?

References used

[1] VOZŇÁKOVÁ, I, JANOVSKÁ, K, SIKOROVÁ, A. , MYNÁŘ, M. *Ekonomika podniku*, Ostrava: VŠB-TU Ostrava, 2008.

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[3] Act no. 586/1992 of the Coll., of income tax.

6 FINANCIAL ANALYSIS

Financial analysis is closely related to financial accounting, which provides the necessary data and information for the analysis. It is an analysis of data obtained from accounting and mutual comparison of the data among each other. Financial analysis is a very important part of corporate management, which is used to evaluate the assets and the financial situation of the company. Financial analysis serves as a tool for a complex assessment of the financial situation of the company, on the basis of which the company may take various measures and quality decisions related to company operation. [1]

Unlike accounting, which is regulated by national and international standards and regulations, financial analysis has not been subject to any norms and standards yet.

6.1 SOURCES AND USERS OF FINANCIAL ANALYSIS

Study time: 1 hour

Objective

Once you have studied this paragraph, you will be able to:

- Describe the basic sources of financial analysis,
- classify the users of financial analysis,
- explain the information value of accounting data.

Presentation

❖ Sources of financial analysis

A proper preparation of **financial analysis** requires data from a variety of information sources, because the informative value of a financial analysis depends largely on the quality of the used input information. Information from company accounting statements represents the most important and the essential source of input data for financial analysis - balance sheet, profit and loss account, and the annexes to these statements that also include a cash flow overview.

Balance sheet (balance) shows the property (assets) and financial (liabilities) structure of a company. It is compiled to a specific date and it must always follow the basic balance rule saying that assets equal liabilities. More information on the balance sheet can be found in Chapter 3.1.

If we look at the balance sheet from a different, not strictly financial perspective, we can say that the property of a company listed as assets includes all the assets that can be reliably expressed in monetary units. However, assets of a company can be understood in a broader sense, where

assets also include suitable location of a company, the skills and experience of the employees, the position of the company in the market, its good reputation, etc. Nevertheless, this information can´t be found in accounting statements. We can say that balance sheet is a static view of the state and structure of assets and their resources of settlement, as it presents the state at one point in time, most commonly on 31st December. That is why it does not characterize the time evolution of management. If we want to monitor this development we must use multiple balance sheets in chronological order, as well as other data. Despite that, we must realize once again that even with more consecutive balance sheets, it is again a static view only. That is why balance sheet is sometimes compared to a photo – it captures one moment from the whole period, unlike the profit and loss account, which tends to be compared to a film, because it captures the state for the entire monitored period - usually a year. [2]

The informative value of balance sheet is affected, among other factors, by the following conditions [2]:

- The use of historical cost (purchase price and prime costs): historical prices do not take into account the development of market prices or investments. A historical cost expresses accounting operations in different purchasing power compared to current situation,
- the method of valuation of fixed assets: in case of depreciations, using straight-line or accelerated method, the price of fixed assets will vary and will affect the value of fixed assets,
- inventory valuation method: the method of valuation in real, average prices affects the reported value of short-term assets,
- valuation of receivables,
- some items, as mentioned before, which have internal financial value, are not taken into account in the financial statements at all - for example, the value of the qualifications and experience of employees.

Profit and loss account (profit and loss statement) provides an overview of the incomes and expenses broken down into operating, financial and extraordinary parts for the monitored accounting period. It is therefore always compiled for a certain period (accumulated). More information on the profit and loss statement can be found in Chapter 6.

Cash flow - cash flow statement provides information about the cash revenues and expenditures of a company for certain period of time. The essence of cash flow is the change of the state of funds, i.e., their increase of decrease during the accounting period in question.

Cash flow statement informs the user both about the way how the company produced the funds, and about the method of their use. The statement is important additional information to the profit and loss account, because the reported profit does not necessarily mean sufficient funds and vice versa, the reported loss their scarcity. [3]

Balance sheet and profit and loss account are compiled in monetary units in Czech currency; the units of measurement are thousands of CZK. The data in the accounting statements and in the annex to the statements are presented for current and past periods. The gross state expresses assets valued according to the Accounting Act. The correction column shows depreciation reserves and adjusting entries with a minus sign. The net state expresses assets after correction, i.e. gross state minus correction.

❖ Informative value of accounting data

From a theoretical point of view, it is possible to analyze the circumstances restricting or distorting the informative value of accounting data. These are in particular [3]:

- Reporting figures in accounting on the basis of historical cost,
- impact of inflation,
- changes in the economic environment and legislation,
- uncertainty of accounting data,
- the problem of comparability of accounting statements in time or within the field.

➢ The basic problem in the **application of the principle of historical cost in the valuation of assets** in accounting lies in the fact that:

- The level of these prices reflects market conditions existing at the time of acquisition of the asset items,
- valuation in historical costs also has serious macroeconomic problems, such as distortion of the economic cycle, respectively some of its stages,
- the used value is a result of decisions taken in the past, in economic terms, it can be considered as "sunk costs".

➢ **The impact of inflation** on input accounting data

It is difficult to define the start of inflation, which is why the term "*accounting in the conditions of changing prices*" is used in such a situation. [4] The problem of inflation and the purchasing power of money are transferred into accounting due to the use of monetary units as a universal measure of value. The basic problem of a monetary unit as a measure of value at the time of inflation is based on the fact that its purchasing power is not constant, and therefore its measuring capability is fluctuating (decreasing) in time, depending on the purchasing power. Depending on how the price level changes, the volume of goods and services that can be purchased for the monetary unit changes accordingly, the purchasing power of the monetary unit decreases. Various types of assets, liabilities, incomes and expenses witness a different degree of inflation. That is why the values of assets, liabilities, equity and income from operations reported in accounting and in accounting statements are not reliable measures of their current fair value. [2]

➢ The impact of **uncertainty of input accounting data** on the individual parts of accounting statements

Accounting statements in a particular arrangement quantitatively show the basic elements of business activity of a company, where the attribute of future economic benefit is the main distinguishing feature. The future economic benefit is connected to the rate of risk which the individual items of the statements contain. The level of risk contained in the individual items of assets is different. Even in case of debts, there is an uncertainty of their future development and the amounts presented in the balance sheet do not necessarily have to reflect the amounts that the company will need in the future to settle them. The projection of the above presented items in the accounting statements anticipates sufficient knowledge, whether the items meet the conditions of presence of future economic benefits, and whether these conditions will be maintained in the future within the ongoing activity of the company. The knowledge will never be certain, the assumptions of the future economic benefit in the accounting statements is based on probability derived from previous experience and logical reasoning.

Certain revealed uncertainty in accounting is solved by applying the principle of caution. According to the principle of caution, the alternative values of accounting statement items and their valuation use such a method that has the least favourable impact on the reported income from operations and the amount of equity. It is therefore based on the assumption that it is better for a company to use more cautious, less risky, and safer option when estimating the future development. [3]

- **Comparability of accounting statements in time within the field**

The problems of comparability of accounting statements occur not only when comparing companies from different countries, but even within one country, even though there are uniform standards and regulations for the preparation of accounting statements, because different companies use different methodologies or opinions to express a true and fair view of real state in accounting.

The comparison of the results of a financial analysis can be carried in relation to a **standard**, i.e. to certain desired standard value. However, the utilization of the so-called recommended values in practice is not very suitable, since it is necessary to take into account the specifics of the individual companies.

Comparability in time is the basic factor of the analysis of the dynamics of company development. A comparison in time provides information from which we can deduce the rhythm, regularity or irregularity of development. The comparability in time and the continuity of accounting data is theoretically possible using the generally accepted principle of accounting consistency and the principle of balance continuity. In this case, it is necessary to pay attention to any legal, financial or technological changes that could significantly affect the development of the time series of indicators.

Comparison in space is much more frequently used, and we talk about the so-called intercompany comparisons, where the comparability condition should be met. The comparability of data arising from accounting in space is much more difficult than the time comparability, especially in terms of a wider range of factors that can affect the comparison in space. The factors include:

- Comparability over time, where the emphasis is on the fact that the indicators must be derived from the same and equally long period,
- comparability of branches, where we compare indicators from two companies working in the same industry,
- technological comparability,
- legislative comparability is particularly dealing with the method of accounting, which should be the same, so that the results of the individual indicators are not affected by that.

Users of financial analysis

Financial analysis can be divided according to who performs it and who needs it, into **external and internal**.

External financial analysis is used by external users and is based on publicly available information contained in the final accounts. The external users are mainly investors, banks, and other creditors, competitors, business partners, the state and its institutions.

Internal financial analysis is carried out by a company itself, by a business management, as well as other invited persons (auditors, valuators). It is based on more detailed financial information,

such as the company statistics or calculations. The internal users are mainly managers, employees, and trade union members. [5]

Other users of financial analysis are for example tax advisors, analysts, stockbrokers, trade unions, and many others.

Summary of the terms from the given chapter

- Sources of financial analysis,
- balance sheet,
- profit and loss account,
- cash flow,
- internal users of financial analysis,
- external users of financial analysis,
- informative value of accounting data.

Questions

1. Why are business partners (suppliers and customers) interested in the financial situation of their business partner´s company?
2. Why are investors (shareholders and owners) interested in the financial situation of the company?
3. What are the limits of balance sheet as a source of input data for financial analysis?
4. How would you define the effect of inflation on input accounting data?
5. What are the basic conditions that affect the informative capacity of balance sheet?
6. Why is it a problem to apply the principles of historical cost for valuation of assets in accounting?

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6.2 METHODS OF FINANCIAL ANALYSIS

Study time: 3 hours

Objective

Once you have studied this paragraph, you will be able to:

- Classify the methods of financial analysis,
- define and use the differential indicators in practice,
- define and use the absolute indicators in practice,
- define and use the ratio indicators in practice,
- define EBIT, EAT.

Presentation

In scholar literature, we can often find a division of methods into **fundamental** analysis and **technical** analysis.

Fundamental analysis is used to assess companies on the basis of the knowledge of the links between economic and non-economic activities. The analysis is focused especially on the qualitative evaluation of the individual economic factors. The basic method is an expert estimate based on the knowledge of the analyst. [1]

On the other hand, **technical analysis** is an assessment of economic phenomena by means of algorithmic methods. Technical financial analysis is usually divided into [1]:

- analysis of absolute indicators (analysis of trends and percentage analysis),
- analysis of differential indicators (financial funds),
- analysis of ratio indicators.

❖ Analysis of absolute indicators

In the assessment of the financial situation of a company, **absolute indicators** use data directly from accounting statements (balance sheet, profit and loss statement), which are mostly compared for the given financial year with the previous year. The analysis is therefore used to monitor both the absolute changes of data, and the percentage (relative) changes. An analysis of absolute indicators is applied using **horizontal** and **vertical analysis**. [2]

Horizontal analysis is called the analysis of trends, which are used to evaluate the development of absolute indicators in longer time series, and they are used to compare how a particular item of the accounting statement changed between the individual years, in absolute and percentage amount.

$$Absolute\ change\ = indicator_t - indicator_{t-1} \quad (14)$$

$$Percentage\ change = \frac{absolute\ change}{indicator_{t-1}} \times 100 \quad (15)$$

Vertical analysis is focused on the internal structure of absolute indicators and it assesses the individual items of assets and capital, respectively the profit and loss account, when a share of certain item from the accounting statements on the total sum of assets and liabilities is calculated. This method works with accounting statements for the individual years from the top down, not across the individual years, which is why it is called vertical analysis. [2]

$$Share\ on\ the\ total = \frac{indicator_t}{sum\ of\ indicators_t} \quad (16)$$

❖ Analysis of differential indicators

Differential indicators are acquired as a difference of two absolute indicators. The most commonly used funds in financial analysis are net working capital. [3]

Net working capital (NWC) is calculated as the difference between short-term assets (excluding long-term receivables) and short-term liabilities, i.e. debts. [4]

There are two ways of calculating net working capital [3]:

$$Net\ working\ capital = Short - term\ assets\ - Short - term \quad (17)$$

$$Net\ working\ capital = (Long - term\ liabilities\ + \text{Equity}) - Fixed\ assets \quad (18)$$

Net working capital is a part of free funds that a company retains after settling all current short-term liabilities. Net working capital is a free capital which is used to ensure the normal operation of company, while providing a financial reserve for unexpected adverse financial expenses. More information about net working capital can be found in Chapter 2.3.3.

❖ Analysis of ratio indicators

Financial ratio indicators characterize mutual relationship, using the ratio between two or more absolute indicators. The basic groups of ratio indicators include:

- Rate of return indicators (profitability),
- activity indicators,
- indicators of indebtedness,
- indicators of liquidity.

RATE OF RETURN INDICATORS

The rate of return indicators measure the profit with the amount of resources that have been spent to create this profit. [5] There are several types of rate of return indicators, depending on which type of profit is inserted in the numerator of fraction and which type of capital is in the denominator, e.g.:

- **ROA – Return on assets**

Return on assets is considered to be a key indicator of the rate of return, because it expresses the overall efficiency of a company, its production power. It compares profit with total assets, regardless of what resources they were funded from. The value of the indicator shows us how many crowns of profit were earned from each crown invested in the entrepreneurial activity. The term profit is too general. Instead of profit, which carries the effect of taxes and interest paid, we can use the so-called **EBIT** (**Earnings before Interest and Taxes**). Using EBIT in the calculation of the rate

of return provides a better reflection of the outcome and allows comparing companies among each other. [2]

$$ROA = \frac{EBIT}{Total\ assets} \quad (19)$$

- **ROE – Return on equity**

Return on equity is the most interesting indicator especially for owners and investors, as it reflects the rate of return of their capital invested into the enterprise. It expresses the ratio between the net profit and equity, i.e. how much net profit was generated by one crown of equity. [6] EAT (Earnings after Taxes) represents the net profit, which indicates the income from operations for an accounting period, it is after taxation, and it is available for distribution among the owners and the company.

$$ROE = \frac{EAT}{equity} \quad (20)$$

- **ROS – Return on sales**

This indicator expresses the ability of a company to make profit at the given level of sales, thus indicating how many crowns of profit a company is able to create per one crown of sales revenues. [7]

$$ROS = \frac{Profit}{Sales\ revenues} \quad (21)$$

INDICATOR OF LIQUIDITY

Indicators of liquidity reflect the company's ability to settle its liabilities, and they basically compare the resources used to make payment (numerator) and the liabilities that are to be paid (denominator). Elements of assets with different liquidity time are entered as the numerator and short-term foreign sources, which include short-term liabilities, short-term bank loans and emergency loans, are entered as the denominator. [8]

- **Current ratio indicator** (liquidity of the 3rd degree)

The indicator evaluates how many times short-term assets (OA) cover short-term foreign sources of the company, and it tells us how many times a company would satisfy its creditors if it converted all short-term assets into cash. However, the informative value of the indicator may be affected by excessive inventory level and irrecoverable debts. [3]

$$Current\ ratio = \frac{OA}{Short{-}term\ foreign\ sources} \quad (22)$$

- **Quick ratio indicator (liquidity of the 2nd degree)**

It expresses the ratio of the so-called quick short-term assets to short-term foreign sources, where the shortcomings of current ratio are eliminated by excluding the inventory item, which has the lowest liquidity, from short-term assets

$$Quick\ ratio = \frac{OA - inventories}{Short{-}term\ foreign\ sources} \quad (23)$$

- **Cash position ratio (liquidity of the 1st degree)**

It expresses the ability of a company to settle all liabilities falling due immediately if the information on liabilities falling due immediately is available. The numerator of the indicator includes the most liquid elements - cash and cash equivalents.

$$Cash\ position\ ratio = \frac{Money}{Short\text{-}term\ foreign\ sources} \quad (24)$$

Liquidity indicators are static indicators, as they are calculated to a balance sheet date, mostly to 31st December, or to any other balance sheet date and therefore serve only as an orientation characteristic.

The higher the liquidity ratios the better the situation of the company in terms of its payment readiness is. However, excessively high liquidity indicators may not be favourable either, because they mean high values of short-term assets, respectively some of their components (e.g. inventories, receivables, and financial assets) that provide small effects. The reduction of inventory or receivables not only reduces the costs associated with them, but above all allows you to reduce the capital tied up in floating assets and to use it more effective. [9]

Specialized publications presents recommended values for each of the indicators of liquidity. These "recommended" values can really be taken only as a certain recommendation, because they depend on many other factors in the individual companies, and a negative result of an indicator should be subjected to a deeper analysis. It represents an average value of all fields and therefore may vary for the individual fields and the individual companies. Specialized publications state that:

- Minimum value of liquidity of the 1s degree should be around 0.2,
- value of liquidity of the 2nd degree should be between 1 - 1.5,
- value of liquidity of the 3rd degree should be in the range of 2 to 3.

ACTIVITY INDICATORS

Activity indicators show how efficiently a company works with its assets and they evaluate the fixture of capital in the individual items of assets and liabilities. The indicator usually shows the ratio of flow quantity (sales revenues) to state quantity (assets) and therefore can be expressed in two forms. This is an indicator of turnover speed (rate of turnover), which shows the number of turnovers of assets during a specified period, usually a year, and an indicator of turnover time which indicates the time (number of days) required to perform one turnover. [2]

- **Total assets turnover**

$$Total\ assets\ turnover = \frac{Sales\ revenues}{Assets} \quad (25)$$

If the indicator is used in reverse form, we speak about the tied-up assets indicator which informs us about performance, i.e. the use of assets to achieve sales revenues.

- **Inventory turnover**

This indicator shows how many times each inventory item is sold and restocked during a year.

$$Inventory\ turnover = \frac{Sales\ revenues}{Inventories} \quad (26)$$

- **Inventory turnover time**

The indicator shows the time (number of days) expressing how long inventories are tied-up in a company, i.e. how long the inventory items are in the warehouse before they are consumed or sold.

$$Inventory\ turnover\ time = \frac{Inventories}{Sales\ revenues \div 360} \quad (27)$$

DEBT INDICATORS

Debt indicators express the ratio between foreign and our own resources, while looking for an optimal balance between them. A reasonable debt can even be beneficial for a healthy and functioning enterprise, because it can increase profitability. Increasing debt, however, goes hand in hand with increasing financial risk, because the company is also obliged to repay not only the debt itself, but the interest of the debts as well.

- **Total debt**

The indicator compares the total liabilities (short-term and long-term) and the total assets. The increasing value of this indicator goes hand in hand with increasing debt and the risk of creditors. Many authors recommend that the value of this indicator is between 30 - 60%.

$$Total\ debt = \frac{Foreign\ resources}{Total\ assets} \quad (28)$$

Task to solve

Example

Based on the accounting statements of a selected industrial enterprise for the period of 2007-2008, conduct a detailed financial analysis. Elaborated according to [10].

Balance sheet 2007-2008

ASSETS	2007 [CZK]			2008 [CZK]		
	Gross	Correction	Net	Gross	Correction	Net
TOTAL ASSETS	311129	15262	295867	302184	33261	268923
Fixed assets	235561	15262	220299	242599	33261	209338
Intangible fixed assets	36744	6372	30372	37243	13371	23872
Tangible fixed assets	180330	10123	170207	186869	20121	166748
Long-term financial assets	18487	-1233	19720	18487	-231	18718
Short-term assets	75529	0	75529	59484	0	59484
Inventories	29924	0	29924	32863	0	32863
Long-term receivables	3678	0	3678	1999	0	1999
Short-term receivables	11536	0	11536	11176	0	11176

Short-term financial assets	30391	0	30391	13446	0	13446
Accruals	39	0	39	101	0	101

Balance sheet 2007-2008

LIABILITIES	2007[CZK]	200 [CZK]
TOTAL LIABILITIES	295867	268923
Equity	94711	106554
Nominal capital	30000	30000
Capital funds	250	250
Reserve funds	4350	4350
Income from previous years	27019	60111
Income of current accounting period	33092	11843
Foreign sources	201106	162324
Reserves	388	420
Long-term liabilities	1898	1898
Short-term liabilities	16619	18646
Bank loans and borrowings	182201	141360
Long-term bank loans	158350	128350
Short-tem bank loans	23851	13010
Accruals	50	45

Profit and loss account (profit and loss statement) 2007-2008

Profit and loss account	2007 [CZK]	2008 [CZK]
Revenues from sold goods	6903	8667
Expenses on sold goods	4896	3881
Sale margin	2007	4786
Outputs	93519	58147
Revenues from own products and services	90405	59392
Change in inventory of own products	3113	-1280
Capitalization	1	35
Production consumption	35845	17613
Added value	59681	45320
Financial income from operations	-2453	-7338

Income tax of regular activity	9333	2350
Income from operations of regular activity	31861	11843
Extraordinary income from operations	1231	0
Earnings after tax (+/-)	33092	11843
Earnings before tax (+/-)	42425	14193

Adjusted profit and loss account (profit and loss statement) 2007-2008

Profit and loss account	2007 [CZK]	2008 [CZK]	2009 [CZK]
Sales revenues from products, goods and services	97308	65059	82574
Expenses on products, goods and services	40741	21494	25414
Gross profit	56567	46565	57160
Operating result	43647	21531	36495
Financial result	-2453	-7338	-4741
Profit before tax	42425	14193	31754
Profit after tax	33092	11843	26203

Solution

ANALYSIS OF ABSOLUTE INDICATORS

Horizontal analysis of balance sheet and profit and loss accounts during the period of (2007 -2008)

$$Absolute\ change = indicator_t - indicator_{t-1}$$

$$Percentage\ change = \frac{Absolute\ change}{Indicator} \times 100$$

- **Horizontal analysis of assets - Absolute change**

Input data:

Assets	2007	2008
Total assets	295867	268923

Year 2008/2007 268 923 – 295 867 = - 26 944

Absolute change of assets in CZK

Assets	**2007/2008**
Total assets	**-26944**
Fixed assets	**-10961**
Intangible fixed assets	-6500

Tangible fixed assets	-3459
Long-term financial assets	-1002
Short-term assets	**-16045**
Inventory	2939
Long-term receivables	-1679
Short-term receivables	-360
Short-term financial assets	-16945
Accruals	**62**

- **Horizontal analysis of assets - relative change**

Year 2008/2007 *268 923/295 867=0.9089-1=-0.0911*100=-9.11%*

Relative change of assets in %

Assets	**2007/2008**
Total assets	**-9.11**
Fixed assets	**-4.98**
Intangible fixed assets	-21.40
Tangible fixed assets	-2.03
Long-term financial assets	-5.08
Short-term assets	**-21.24**
Inventory	9.82
Long-term receivables	-45.65
Short-term receivables	-3.12
Short-term financial assets	-55.76
Accruals	**158.97**

- **Horizontal analysis of liabilities – absolute change**

Input data:

Liabilities	**2007**	**2008**
Total liabilities	**295867**	**268923**

Year 2008/2007 *268 923–295 867=-26 944*

Absolute change of liabilities in CZK

Liabilities	2007/2008
Total liabilities	**-26944**
Equity	**11843**
Nominal capital	0
Capital funds	0
Reserve funds	0
Income from operations from previous years	33092
Income from operations of current accounting period	-21249
Foreign sources	**-38782**
Reserves	32
Long-term liabilities	0
Short-term liabilities	2027
Bank loans and borrowings	-40841
Accruals	**-5**

- **Horizontal analysis of liabilities - relative change**

Year 2008/2007 *268 923 /295 867 = 0.9089 -1 = -0.0911 *100 = -9.11%*

Relative change of liabilities in %

Liabilities	2007/2008
Total liabilities	**-9.11**
Equity	**12.50**
Nominal capital	0.00
Capital funds	0.00
Reserve funds	0.00
Income from operations from previous years	122.48
Income from operations of current accounting period	-64.21
Foreign sources	**-19.28**
Reserves	8.25
Long-term liabilities	0.00
Short-term liabilities	12.20
Bank loans and borrowings	-22.42
Accruals	**-10.00**

- **Horizontal analysis of profit and loss account – absolute change**

Input data:

Profit and loss account	2007	2008

Revenues from products, goods and services	97308	65059

Year 2008/2007 65 059 - 97 308 = - 29 249

Absolute change of profit and loss account data in CZK

Profit and loss account	2007/2008
Sales revenues from products, goods and services	-29249
Expenses on products, goods and services	-19247
Gross profit	-10002
Operating result	-22116
Financial result	-4885
Profit before tax	-28232
Profit after tax	-21249

- **Horizontal analysis of profit and loss account – relative change**

*Year 2008/2007 65 059/ 97 308 = 0.6685 -1 = - 0.3314 * 100 = -33.14 %*

Relative change profit and loss account data in %

Profit and loss account	2007/2008
Sales revenues from products, goods and services	-33.14
Expenses on products, goods and services	-47.24
Gross profit	-17.68
Operating result	-50.67
Financial result	199.14
Profit before tax	-66.55
Profit after tax	-64.21

- **Vertical analysis of profit and loss account**

$$Share\ on\ the\ total = \frac{indicator_t}{sum\ of\ indicators_t}$$

Vertical analysis of assets

Input data:

Assets	2007	2008
Total assets	**295867**	**268923**
Fixed assets	220299	209338
Short-term assets	**75529**	**59484**

*Short-term assets / total assets = 75529 / 295867 = 0.25528 *100 = 25.53%*

*Fixed assets / total assets = 220299 / 295867 = 0.7446 *100 = 74.46 %*

Share of fixed and short-term assets on the total assets in the individual years in %

Assets	2007	2008
Total assets	**100.00**	**100.00**
Fixed assets	74.46	77.84
Short-term assets	25.53	22.12

VERTICAL ANALYSIS OF LIABILITIES

Input data

Liabilities	2007	2008
Total liabilities	**295867**	**268923**
Equity	**94711**	**106554**
Foreign sources	201106	162324

*Equity / total liabilities= 94711 / 295867 = 0.3201 *100 = 32.01 %*

*Foreign capital / total liabilities = 201106 /295867 = 0.6797*100 = 67.97 %*

Share of equity and foreign capital on the total liabilities in the individual years in %

Liabilities	2007	2008
Total liabilities	**100.00**	**100.00**
Equity	32.01	39.62
Foreign capital	67.97	60.36

Vertical analysis of profit and loss account

Input data

Profit and loss account	2007	2008
Sales revenues from products, goods and services	97308	65059
Expenses on products, goods and services	40741	21494
Gross profit	56567	46565
Operating result	43647	21531
Financial result	-2453	-7338
Profit before tax	42425	14193
Profit after tax	33092	11843

Expenses on products, goods and services / Sales revenues from products, goods and services = 40741/ 97308 = 0.41868 *100 = 41.87%

Operating result / Sales revenues from products, goods and services =

=43647/97308=0.4485*100=44.85%

Structure of profit and loss account data of the company in % (expressed in relation to total revenues)

Profit and loss account	2007	2008
Sales revenues from products, goods and services	100.00	100.00
Expenses on products, goods and services	41.87	31.58
Operating result	44.85	31.64
Financial result	-2.52	-10.78
Profit before tax	43.60	20.85
Profit after tax	34.01	17.40

Analysis of ratio indicators

Liquidity indicator

$$Cash\ position\ ratio = \frac{Money}{Short - term\ foreign\ sources}$$

$$Quick\ ratio = \frac{OA - inventories}{Short - term\ foreign\ sources}$$

$$Current\ ratio = \frac{OA}{Short - term\ foreign\ sources}$$

Current ratio = 75 529 / ***(16619+ 23851)*** *= 1.866*

*Quick ratio=(30391+11536)/****(16619+ 23851)*** *= 1.04*

*Cash position ratio=30391/****(16619+ 23851)*** *= 0.75*

Development of liquidity

Liquidity	2007	2008
Current ratio	1.87	1.88
Quick ratio	1.04	0.78
Cash position ratio	0.75	0.42

Activity indicators

$$Total\ assets\ turnover = \frac{Sales\ revenues}{Assets}$$

Total assets turnover=(6903 + 90405) / 295867=0.33

$$Inventory\ turnover = \frac{Sales\ revenues}{Inventories}$$

Inventory turnover=(6903 + 90405)/29924=3.25

$$Inventory\ turnover\ time = \frac{Inventories}{Sales\ revenues \div 360}$$

*Inventory turnover time=360*29924/(6903 + 90405)=110.7=111 days*

Activity indicators

Activity indicator	2007	2008
Assets turnover	0.33	0.25
Inventory turnover	3.25	2.07
Inventory turnover time	111	174

Profitability ratios

Input data:	2007	2008
Income from operations before taxation (+/-)	42425	14193

Cost interests	4890	7030

$$ROA = \frac{EBIT}{Total\ assets} \times 100$$

*ROA=(42425 + 4890)/295867*100=16 %*

$$ROE = \frac{EAT}{equity} \times 100$$

*ROE=42425/97308*100=44%*

$$ROS = \frac{Profit}{Sales\ revenues} \times 100$$

*ROS=(33 092/ 97 308)*100=34%*

Profitability ratios in %

Profitability	2007	2008
Return on assets ROA	16	8
Return on equity ROE	44	13
Return on sales ROS	34	17

Debt indicators

$$Total\ debt = \frac{Foreign\ resources}{Total\ assets}$$

Total debt=201106/29586=0.68

Debt indicators in %

Debt ratio	2007	2008
Total debt	68 %	60 %

Net working capital indicator

Net working capital = Short-term assets – Short-term liabilities

Net working capital = Short-term assets - (Short-term liabilities + Short-term bank loans) = =75529-(16619+23851)=35059

Net working capital in CZK

	2007	2008
Short-term assets	75529	59484

Short-term liabilities	16619	18646
Short-term bank loans	23851	13010
Working capital	35059	27828

Summary of the terms from the given chapter

- Fundamental analysis,
- technical analysis,
- absolute indicators of financial analysis,
- horizontal analysis,
- vertical analysis,
- differential indicators of financial analysis,
- net working capital,
- liquidity indicators,
- profitability indicators,
- activity indicators,
- debt indicators.

Questions

1. Which indicators do we evaluate within the scope of technical analysis?
2. Which analysis is called the analysis of trends and evaluates the development of absolute indicators in a time series?
3. Which analysis works with accounting statements in the individual years from the top down?
4. How can we define net working capital?
5. Which indicators of financial analysis belong to the group of ratio indicators?
6. What do liquidity ratios express?
7. What does the cash position ration indicator inform us about?
8. What do profitability ratios express?
9. What is EBIT?
10. Which indicator expresses the overall efficiency of company, its production power?
11. What do activity indicators express?
12. How can we define an indicator of assets fixture and what does it express?
13. Which indicator expresses how long inventories are tied up in a company?
14. What do debt indicators express?

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7 FINANCIAL MANAGEMENT OF THE COMPANY

Study time: 2 hours

Objective

Once you have studied this paragraph, you will be able to:

- Define the objectives of financial management,
- identify the sources of financial management of company,
- describe the objectives of financial planning,
- describe the types of plans,
- define financial plan,
- explain the objectives of controlling.

Presentation

The objective of financial management at all levels is especially [1]:

- Ensure liquidity of the company so that the company is able meet its liabilities,
- ensure profitability, create and ensure the resources for future development of the company.

The **time and risk factors** must be taken into account as the basis for any financial decisions (the time and risk factors are discussed in Chapter 8). That is why it is necessary to perform a detailed **financial analysis** as early as during the preparation of a financial plan (a financial analysis was presented in detailed form in Chapter 6). The creation of a financial plan is followed by a financial control, which is a part of **controlling**.

The main source of information used to determine the financial situation of a company is its balance sheet, and profit and loss account. Quality company management requires you to perform an analysis of the economic and financial situation, both in your own company, and in customers´ companies or other cooperating objects. A simplified economic analysis or an economic research must be performed by every company owner. [1]

As stated before, it is important to determine who performs the analysis and why. Subsequently, an economic analysis can be divided into two basic areas:

- **External analysis**, based on publicly available financial and non-financial information,
- **internal analysis** - in this type of analysis, all data from the company information system are available to the analyst.

To make an economic analysis useful, it requires quality basic data - information. Information plays a key role in all decision-making processes of a company. Information must be up-to-date and

its identification should be effective, relatively inexpensive, and customized to the needs of the company. An analyst or a manager, whose knowledge, experience and judgment are necessary to ensure an efficient collection of information, determination of a suitable scope of information and a correct interpretation of the acquired information, plays an important role in the process of collection of information. [2]

Finding **information about your own company** is easier, because all the information is readily available. The capabilities of the company information system or the knowledge of the company employees may be the only limiting factors. Finding information on **foreign companies** is more problematic. It depends on the company, how detailed information it provides about itself, but despite that, it is still possible to find lots of information about foreign companies. Information about a supply, customer or a competing company may be obtained, for example, from the following sources [2]:

- Register of Companies or Trade Register,
- Business Bulletin,
- annual reports,
- securities prospectus,
- annual reports that provide economic data of a company, if it is an issuer of publicly tradable security,
- register of debtors,
- information catalogues, chambers of commerce, media monitoring,
- information offices which can provide reports on the economy - the most famous are Dun & Bradstreet, Intercredit, Creditreform etc.

❖ Financial planning

One of the priority functions of company management is **planning**. It is a complex decision-making process consisting of a proposal, an evaluation and a selection of targets and corresponding projects to achieve them.

In established companies, the responsible staff members prepare various strategic and operational plans that form the basis of a financial plan of the company. The individual types of plans can be divided according to various criteria, such as [3]:

- Time criterion:
  - long-term (concept) plans - 5 years,
  - medium-term plans - 2-3 years,
- short-term plans - annual, quarterly, monthly, decade, weekly, daily,
- material (content) criterion:
  - Operational plans set out specific procedures and means of realization to the lowest levels and refer to very short periods of time,
  - tactical plans are prepared and realized at middle management level. They are based on an annual plan and they represent a transition from strategy into reality,
  - concept (long-term, based on the strategy of the company).

Financial planning is extremely demanding, difficult and responsible work of financial managers and controllers. The creators of these plans must take into account a wide range of factors, and their task is to create a consistent financial document that shows the current and especially the future financial position of a company on the basis of the acquired information. [3] Financial planning also includes decisions related to funding of ordinary, investment and extraordinary activities.

The objectives of financial planning may include the following eight areas [4]:

- Market position,
- innovative activity,
- productivity,
- profitability,
- the operation method and development focus of company management,
- performance of workers and their attitude towards the company,
- the relations between the company and the public, public opinion about the company and its development, material and financial resources and their assurance.

Financial plan is primarily a tool ensuring financial balance (liquidity). Financial plan and other corporate plans do not comply with any legislation rules and their development and observance is fully in the responsibility of the executives of the company. The most important factor affecting the financial needs, and simultaneously also defining the crucial operating income, is the volume of sales revenues. The plan of sales revenues is based on forecasts of the market conditions and on the sales plan. It is followed by a number of other plans, such as production plan, investment plan, marketing plan, purchase plan, plan of renovation and maintenance of tangible fixed assets, plan of research and development, procurement plan, personnel plan, and as a synthesis - a financial plan, as shown in Figure 15. [5]

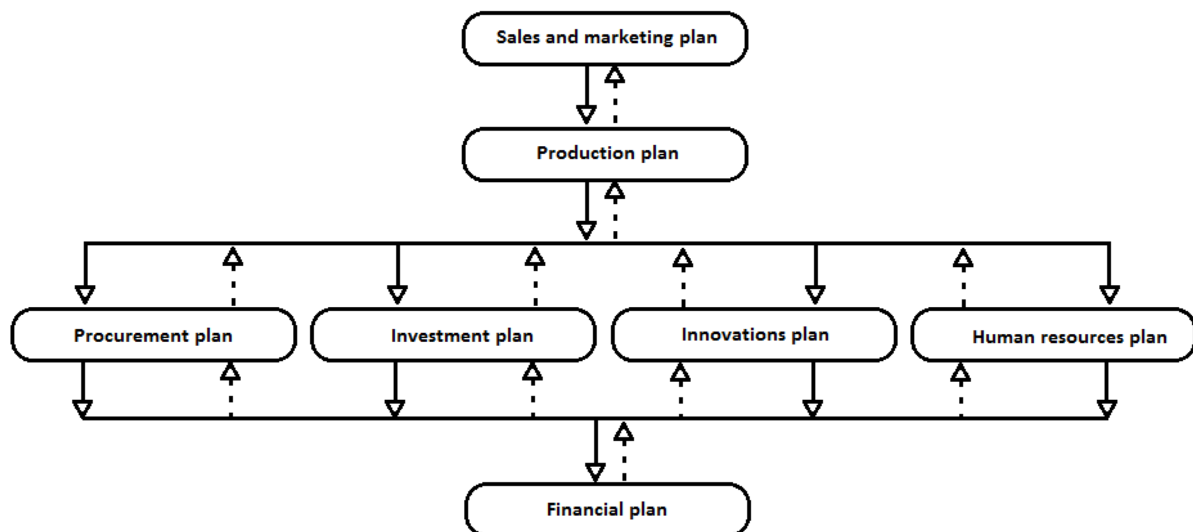

Figure 15: Financial plan and its links to other company plans [5]

Financial plan has a specific place in the company plan structure, which is caused by the fact that it is linked to all other plans and they fade into one another.

Long-term financial plan attempts to achieve long-term financial objectives of the company. Short-term financial plan of a company consists mainly of [5]:

- Planned profit and loss statement,
- planned balance sheet,
- annual cash flow plan,
- cash revenues budget,
- cash expenditures budget.

As mentioned at the beginning, the creation of a financial plan is followed by a financial control, which is a part of controlling. The term controlling does not mean just a control, as it might seem at the first glance. It is a complex that includes planning, control and management and it goes

through the entire company. At present, it is one of the integral parts of modern company management. The core of controlling is comparing the created plan with reality. The identified deviations and their causes are analyzed and form the basis necessary for the introduction of countermeasures within the frame of company management. Controlling compares the plan with reality within the scope of monthly reporting. [6]

Summary of the terms from the given chapter

- Financial planning of company,
- financial plan,
- liquidity,
- profitability,
- risk in financial management,
- controlling,
- time factor.

Questions

1. What is the goal of financial management of company?
2. How can we define a financial plan?
3. What sources can we obtain information necessary for financial planning from?
4. How do we classify plans from the time perspective?
5. What does a short-term financial plan of a company include?
6. What is the aim of controlling?

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8 INVESTMENT DECISION-MAKING

Study time: 3 hours

Objective

Once you have studied this paragraph, you will be able to:

- Define investments,
- describe the factors an investor must consider within the scope of investment project evaluation,
- define the basic methods which are beeing used to express the time factor in financial decision-making,
- describe the most important methods of compound interest.

Presentation

*"From a macroeconomic point of view, **investments** are characterized as utilization of savings to produce capital goods, or to development of technologies and acquisition of human capital. They mean sacrificing today (certain) values in order to obtain future (usually less certain) values. "*[1]

In a broader sense, the term investment is used for buying assets. An asset is anything that brings revenue to its owner. Assets may be divided into **real assets** or **financial assets**. [2]

Real assets generate income by being used in production. They are lands, buildings, machinery, means of transport, mineral deposits – i.e. factors of production. But they also include such intangible assets as patents, know-how or trademarks.

Financial assets are mainly bank deposits and securities (shares, bonds, etc.) that bring income to their owners, such as interests from deposits and bonds or dividends from shares.

Investments exist in many forms. There are three **basic investment groups** [3]:

- Tangible investments - investments that create or extent production capacity,
- financial investments - they include the purchase of securities, bonds, shares, lending money to investment companies to earn interest,
- intangible investments - investments intended for the purchase of know-how, costs of education, social development, and research and development, etc.

Investment decision-making essentially requires us to answer the question of what values we are now giving up now in order to obtain a different value in the future. An investment makes sense only if the present value will be compensated to a larger extent in the future. So, we sacrifice a **present value** for a **future one**. While today's value is certain, the future value is always uncertain.

There are two basic principles of the finance theory that must be respected when assessing the performance of a company [4]:

1. A crown received today is worth more than a crown received tomorrow.
2. A safe crown (CZK) has a higher value than a risk crown.

These two basic principles must be kept in mind during all activities in a company. The money the owner receives sooner is available to him sooner as well, so it has higher value for him. On the other hand, the later the owner receives the money, the lower the current value of money will be for him.

A company considers all possible investment opportunities in terms of future returns. If they are the same in all cases, then, quite naturally, the decision will prefer those investments that are the **least risky**. Despite that, there may be some very attractive risky opportunities. In such a case, it is reasonable to divide an investment into more parts, and to invest partly into the more risky one with higher yield, while other parts should be invested into safer opportunities, albeit less profitable. This significantly reduces the overall risk, which is what the **investment portfolio theory** is based on. [2]

Investment decision-making deals with two basic problems:

- How much and when a company should invest,
- to which type of fixed assets (tangible, intangible, financial) or to which particular investment project to invest.

Investment decision-making has several specific features. They can be summarized in a few points [5]:

- Decisions are made for a long time, which is why there are many factors that can change investment decision-making, such as changes in inflation or interest rates,
- investments usually involve capital-intensive operations, which the company may not be able to handle,
- investment decision-making is a very demanding activity in terms of time and finances,
- investment activity is a tool of innovation in the company, because it is related to the acquisition of new technologies and products.

An investor must assess each investment opportunity with regards to these factors; see Figure 16 [2]:

- Expected **return on investment**,
- the expected **risk of investment**,
- the expected **impact on the liquidity of the company**.

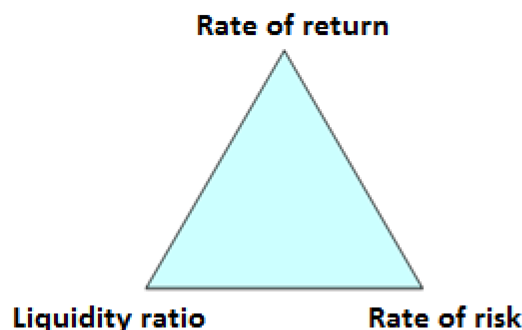

Figure 16: Basic investment strategic triangle

An investor must compare every opportunity in terms of the assessment of the **rate of return** (profitability) of investment. It is actually budgeting of expenses of investment and cash revenues during the lifetime of the investment. Other important criteria for evaluation of investments include the expected investment **risk**, i.e., a degree of risk of failure to achieve the expected revenues, and investment payback period - the expected **impact on liquidity of the company**, i.e. the time when the cash revenues equal the expenses for an investment. [3]

An ideal investment is the one that gives us maximum yield, low risk, and high liquidity. Such investments are very rare in practice. In fact, investments with high rate of return tend to be highly risky, and they have low liquidity. That is why an investor must decide for one of the three presented factors. [3]

A company (investor) can apply various types of investment strategies during the investment decision-making process. **Investment strategy** - as part of a financial strategy - represents investment practices that ensure the financial objectives of the company. The basic financial objective of any entrepreneurial activity is to maximize the company market value for the owner and to secure liquidity.

❖ Investments evaluation criteria

Financial decision-making of a company, especially longer-term decision-making, is influenced by time. It is therefore necessary to respect the time factor, when financial decisions are being made. [2]

The basic methods used in financial decision-making to express the time factor are the **methods of simple and compound interest**.

Simple interest

In case of simple interest, the interests are credited to the principal and they are subsequently withdrawn, they are not added to the original capital and thus do not increase the principal as the basis for further interest.

The interest rate during the interest period [2]:

$$U = SH * i * n = SH * \frac{p}{100} * \frac{k}{360} \qquad (29)$$

U interest

SH present value of the deposit when deposited at the bank, principal, cash flow of the expended costs of investment at the time of their actual expenditure

i percentage rate

p interest rate

n number of interest years

k number of interest days

Task to solve

Example

How much will you receive in interests when you deposit 200,000, - CZK at the bank for a period of 3 years with an interest rate of 2% p.a. (i.e. annually). The interests are withdrawn each year.

Solution

U = 200 000 x 0.02 x 3 =12 000,- CZK

You will receive 12 000,- CZK in interests.

Compound interest

In case of compound interest, the interests are not withdrawn and they increase the base (principal) for the next interest period. The interest is added to the initial quantity at end of the interest period (usually a calendar year).

The most important methods of compound interest [2]:

- Future value of a single deposit,
- present value of money,
- future value of annuity [1],
- annuity payment in order to achieve the future value,
- capital recovery (annuity payment of capital),
- present value of annuity.

Future value of a single deposit

Future value of a single deposit using compound interest (where the interest is calculated not only from the deposits, but also from the interests added so far) is determined by means of an **interest quotient.**

$$BH = SH * (1 + i)^n \tag{30}$$

BH future value (final value)

SH present value (initial principal)

i percentage rate

n number of years when the interest is calculated

Task to solve

Example

[1] Annuity is a series of regular payments of the same amount for a specified period of time. Sometimes, it is also characterized as a sum of regular annual credit instalment (amortization) and interest payments.

How much will you withdraw from a bank during 4 *years if you deposit 600,000, - CZK at an interest rate of 4% p.a. and the interests are added to the principal*?

Solution

BH = 600, 000 * $(1 + 0.04)^4$

BH = 701, 915,- CZK

After four years, I will withdraw the amount of 701, 915,- CZK from the bank.

Present value of money

Present value of money (discounted value) is determined by means of a **discount factor**. A discount factor is used if you want to convert future income or earnings to present value.

$$SH = \frac{BH}{(1+i)^n} \tag{31}$$

BH future value

SH present value

i percentage rate

n number of years when the interest is calculated

Task to solve

Example

A building company has agreed that it will supply a technological line to a foreign customer for 1,000,000, - CZK using a three-year loan. The customer paid by a bill of exchange which the supplier immediately discounted at the bank. However, for immediate discount the bank requires an interest at the amount of 10%. How much will the bank pay to the construction company for the bill of exchange when immediate discounting of the bill of exchange is used? How much would the bank pay for the bill of exchange if the building company discounted it in one year? [2, 6]

Solution

Immediate discount:

$$SH = \frac{1\,000\,000}{(1+0{,}1)^3} = 751\ \ 315{,}\!-\!K\check{c}$$

Discount in a year:

$$SH = \frac{1\,000\,000}{(1+0{,}1)^2} = 826\ \ 447{,}\!-\!K\check{c}$$

When immediate discount is used, the bank will pay the sum of 751, 315,- CZK to the building company, but if the building company discounted the bill of exchange in one year, the bank would pay the amount of 826, 447, - CZK, i.e. 75, 132,- CZK more than in case of immediate discount.

Future value of annuity

The future value of annuity is determined with the assistant of a **saver.** Savers will help us to determine the final value of regular deposits, including interests for a certain period of time. It is expected that the regular deposits will always be deposited at the end of each year.

$$BH = PL * \frac{(1+i)^n - 1}{i} \tag{32}$$

PL amount of regular payments (annuity)

BH future value

i percentage rate

n number of years when the interest is calculated

Task to solve

Example

We always deposit the amount of 18, 000,- CZK at the bank at the end of each year *for a period of 5 years, with the percentage rate of 3.5% p.a. How much will there be at the end of the fifth year*?

Solution

$$BH = 18\,000 * \frac{(1+0{,}035)^5 - 1}{0{,}035} = 96\,525{,}- Kč$$

At the end of the fifth year, the saved amount will be 96, 525,- CZK.

Annuity payment in order to achieve the future value

Annuity payment in order to achieve the future value is determined using an **annual sinking fund.**

$$SH = BH * \frac{i}{(1+i)^n - 1} \tag{33}$$

BH future value

SH present value

i percentage rate

n number of years when the interest is calculated

The amount of regular payment (SH = PL) at the end of the year, which will enable us to save the required future value (BH) in n years at an annual interest rate i.

Task to solve

Example

How much do we have to deposit at the bank at the end of each year to save 500, 000,- CZK in 4 years with an interest rate of 4%?

Solution

$$SH = 500\ 000 * \frac{0{,}04}{(1+0{,}04)^4 - 1} = 117\ 745{,}- Kč$$

To save the amount of 500, 000,- CZK, we have to deposit the amount of 117, 745,- CZK at the end of each year for 4 years.

Capital recovery

Capital recovery (sometimes also annuity repayment of loan and interest rate payment) can be determined using a **capital-recovery factor**. [6]

$$PL = (SH) * \frac{i * (1+i)^n}{(1+i)^n - 1} \qquad (34)$$

PL annual repayment of loan and interests,

SH provided loan,

i percentage rate,

n number of years when the interest is calculated.

Task to solve

Example

A company needs a loan from a bank to purchase new technologies amounting to 10,000,000, - CZK. The bank requires a regular repayment of the loan during the period of 5 years with an interest rate of 20%. How much will the company regularly pay at the end of each year to repay the loan together with interest?

Solution

$$PL = 10\ 000\ 000 * \frac{0{,}2 * (1+0{,}2)^5}{(1+0{,}2)^5 - 1} = 3\ 343\ 798{,}- Kč$$

At the end of each year, the company will repay the loan with interests in the amount of 3,343,798, - CZK over a period of 5 years (i.e. during 5 years, it will overpay the requested amount by 6,718,990, - CZK).

Present value of annuity

Present value of annuity (also known as present value of regular future revenues) is determined using **serial annuity bond**. [6]

$$SH = PL * \frac{(1+i)^n - 1}{i * (1+i)^n} \qquad (35)$$

The serial annuity bond can be used to determine the present value of the amount that allows paying regular return at the end of the year and, at the same time, determining the unexpended balance of the original amount. Regular return includes both part of the initial amount and the interest from this amount. [6]

Task to solve

Example

We would like to receive the amount of 15, 000,- CZK over 10 years at the end of each year. What amount do you have to deposit to achieve this at an annual interest rate of 8%?

Solution

$$SH = 15\,000 * \frac{(1+0{,}08)^{10} - 1}{0{,}08 * (1+0{,}08)^{10}} = 100\,652{,}-K\check{c}$$

We have to make a deposit of *100, 652, - CZK* in order to have the amount of *15, 000,- CZK* at the end of each year *for the period of 10 years.*

Summary of the terms from the given chapter

- Investments,
- investment decision-making,
- investment return,
- investment risk,
- investment liquidity,
- investment strategy,
- simple interest,
- compound interest,
- interest quotient,
- discount factor,
- saver,
- annual sinking fund,
- capital-recovery factor,
- serial annuity bond.

Questions

1. Is it possible to define investments as follows: Investments mean sacrificing today´s (certain) values in order to obtain future (usually less certain) values?
2. What are the basic principles of the theory of finances?
3. What are the basic problems investment decision-making deals with?
4. Do intangible investments belong to the basic group of investments?
5. What factors must be assessed by an investor during each investment?
6. How do we determine the rate of interest during the interest period in case of simple interest?
7. What are the most important methods of compound interest?
8. How can we define interest quotient and discount factor?
9. How do we determine the final value of regular deposits, including interests, for a certain period of time?
10. What is annuity?

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9 LIFE OF COMPANY

Study time: 1 hour

Objective

Once you have studied this paragraph, you will be able to:

- Describe the company launch,
- describe the growth period of company,
- describe the stabilization period of company,
- describe the period of crisis and rescue of company,
- describe the period of company dissolution,
- define the foundation project.

Presentation

According to Act No. 513/1991 of the Coll., of the Commercial Code, a company is a set of tangible as well as personal and intangible elements of business. A company is in possession of things, rights and other assets that belong to an entrepreneur and are used to run the company or should serve this purpose due to their nature. [1] Company and entrepreneurial activity are further explained in Chapter 1.

❖ **Company launch**

The existence of a company always starts with an idea of an entrepreneur:

- What will be the subject of business, i.e. what products will I manufacture or what services will I provide?
- How will I produce the goods and services, i.e. what equipment will I use to produce, what manufacturing technology will I use?
- How will I finance the entrepreneurial activity?
- What legal form of business will I choose?

A formalized document that addresses the above mentioned issues is called the foundation project. In order to be successful, the foundation project should include [2]:

- Definition of the basic objectives of business,
- specification of the market the company is entering (size, share, competition, limits barriers),
- special benefits the given product or service will provide, how it will differ from the competition,
- the foundation of the company (field and line of business, size, legal form),
- long-term outlook, including the definition of the financial goals,

- budget of sources and requirements, including a proof of ability to repay eventual foreign sources,
- tax burden,
- company insurance (property, personnel, etc.),
- environment (impact of the project on the environment around, wastes and their disposal, etc.),
- references regarding the founder.

The selection of a legal form of business is a very important part of the decision-making process of entrepreneurs. This is a decision that will determine the future relationship with the surroundings and especially the possible access to capital. The criteria influencing the choice of a legal form of company may include [2]:

- **Scope and type of liability**

  The type of liability and its extent has impact on the risks of an entrepreneur who becomes the founder and partner of the company.

- **Management authorisation**

  The issue is especially who is authorized to manage the company and represent it externally:

  - In selected cases, this issue is left to be considered by the owners or partners who can include this authorisation, for example, in the partnership agreement,
  - the law prescribes the bodies a company must have and what their competencies are.
- **Number of founders**
- **Initial capital requirements**

  The scope of the initial capital required to establish a company is defined by the law (as a minimum) only for stock companies (Ltd., Inc.). Sole traders and personal commercial companies do not have the initial capital determined by the law, but a personal involvement of the partner in the performance and operation of the business is expected.

- **Administrative demands of the foundation of a company and the extent of expenditures associated with the foundation and operation of a company.**

  The administrative demands are associated primarily with the adjustment of the conditions under which the company comes to being. In commercial companies, the decisive impact is connected with the expenses associated with the trade license, the creation of the partnership agreement and its notarial authentication, and the incorporation in the Register of Companies.

- **Participation in profit (loss)**

  The level of risk of entrepreneurs is proportional to the participation in profit (loss). In some companies, the division is based directly on the law (limited partnership, Ltd., capital companies.). The participation in profit of a shareholder in a joint-stock company (dividend) depends on the decision of the General Meeting. In personal commercial companies, the profit is divided equally among all partners, unless the partnership agreement states otherwise.

- **Financial options, especially access to foreign capital**

  This is particularly the possibility of an extension or reduction of equity, as well as an access to foreign capital. Credit options of the individual legal forms are different. They depend on the amount of capital available to the company; the type and degree of liability of the partners also play an important role.

- **Tax burden**

  The tax factor is very important during the selection of the legal form of business. At present, entrepreneurs pay direct taxes (income tax and corporate tax, property tax and property transfer tax) and indirect taxes (value added tax, consumption tax and road tax). Labour force expenses, which conform to the law of social and health insurance, also play an important role.

- **Disclosure duty**

  Disclosure duty is the obligation of a company to publish its economic results. Disclosure duty in the Czech Republic is governed by several legal regulations - the Commercial Code [1], the Accounting Act [3] and the Securities Act [4].

Commercial companies and cooperatives are formed in two stages. The first stage is the establishing of the company, and during the second stage, it starts to exist as a legal entity, as of the date of its incorporation in the Register of Companies. In the period between the establishment and the start of existence of a commercial company, it does not have legal personality (it cannot acquire rights and duties, neither by its own actions or the actions of other persons), and its bodies do not exist. The company partners are only in the position of founders, not partners.

A company is established by a partnership agreement signed by all founders. The signatures of the founders must be officially verified. In the event that a company is established by a sole founder, the partnership agreement is replaced by a deed of foundation, which must contain the same information as the partnership agreement. The partnership agreement of a limited liability company and the memorandum of foundation of a joint-stock company must have a form of a notarial registration.

The application for incorporation into the Register of Companies must be submitted within 90 days from the foundation of the company, or from the delivery of the trade license or other business license. If the application is submitted within the prescribed period, it is no longer possible to submit an application for incorporation into the Register of Companies based on the business authorization licence. Unless explicitly stated during the establishment of a company that it is established for a fixed period of time, it is established ad infinitum.

Task to solve

Example

Do you have the business spirit and unconventional, innovative ideas?

Solution

A business incubator provides not only the lease of an attractive office, semi-operational, meeting and additional space at competitive rates to young, innovative, emerging companies, but it also provides important contacts and a set of complementary advisory and administrative services to help them to overcome the initial problems and to achieve success at the market.

The Business Incubator of VŠB-TU Ostrava was opened in 2008 in one of the most lucrative locations in Ostrava in order to offer an intensive assistance for new and innovative entrepreneurs trying to build a successful company. The Business Incubator of VŠB-TUO offers a wide range of services, such as a package focused on How to establish a company. More about the Business Incubator of VŠB-TU Ostrava can be found on www.cpit.vsb.cz /inkubator or by phone on 603 565 918. [5]

A business incubator is a place where you can start your business, while saving money on office equipment, rent, service and administrative activities, and the costs associated with operation of security systems, lease of audiovisual equipment or fixed internet connection.

❖ Company growing period

A successfully foundation of a company is usually followed by a period of growth, which means that the company **increases its volume of production**, **sales** and the services provided in the given commodity or market segment. A key measure of growth is the **rate of growth of sales revenues** (turnover).

A successful development of a company is influenced by a number of factors. The most important include a clear strategy and the ability of a company to respond flexibly to changing market conditions.

The characteristic features of companies in the growing stage are the **search for new customer segments and territories suitable for expansion**. Another important factor is the ability of a company to **effectively deal with its own or foreign capital** and to look for sources of funding for further development. Various support and grant programs are often used for future development funding during this stage of the life of company. A sophisticated work with human resources in the sphere of motivation and education is automatically expected as well. The effort to conduct business as efficiently as possible during the growth stage is also reflected in a greater emphasis on improving the organization of labour and on strengthening competitiveness through mergers or links with other subjects in the market. [6]

The period of growth is the period when the company extends its activities, but, at the same time, it should be noted that many companies cannot cope with the situation, which consequently leads to their demise during this period. A company can prevent that through [2]:

- Continuous innovation of production and its appropriate quality,
- suitable pricing strategy,
- sales support.

❖ Stabilization

If a company copes with the growing stage without any special difficulties, the next stage is usually the stabilization, i.e. the period when the company achieves **optimal size with respect to market opportunities**. If the company loses the necessary momentum of growth and begins to decrease its activities, the task of the management is to reverse this undesirable development. This can be achieved through redevelopment. If it fails, the company remains in permanent crisis, which usually ends by its bankruptcy. [2]

❖ Crisis and rescue

Company crisis is a term used during the life of company that identifies a longer period of time with **unfavourable development** of its performance potential, a reduction in the volume of sales revenues, a decrease in net asset value, a decrease of liquidity, which pose a direct threat to its existence if this trend continues. If a company finds itself in the above described condition for longer period of time, it is necessary to find a radical solution so that it can work without problems again. A rescue is the action that serves this purpose. A rescue is a set of measures taken by the management of a company whose purpose is fundamental rehabilitation and restoration of the financial performance and prosperity of a company. [2]

❖ Company dissolution

If the rescue of a company is not successful, the company ceases to exist. A **company ceases to exist on the date of its deletion from the Register of Companies**. However, in terms of material and time factors, the end of existence of a company is preceded by it dissolution. Dissolution of a company follows the provisions of legislation, Act No. 513/1991 of the Coll., of The Commercial Code, according to § 68 [1]:

- With dissolution,
- without dissolution.

The difference between the above presented ways of the end of existence of company lies in the fact that in the event a company ceases to exist without dissolution, the business assets are transferred to a legal representative (the cases of merger, fusion or division).

The term **dissolution** is understood as "out of court settlement of property conditions of the dissolved company", unless the company has a legal successor. Company dissolution can be carried out only by a liquidator. A liquidator is a person to whom the competences of the statutory body are passed over, within the scope limited to the dissolution of the company. The requirements regarding the person of the liquidator are not clearly specified. The fact that a company entered into dissolution must be recorded in the Register of Companies. [8]

Company dissolution consists of three stages [7]:

- Identification of assets,
- preparation of a dissolution plan,
- realization of dissolution performed by a liquidator.

The aim of dissolution a gradual transformation of parts of assets into liquid means, which will be used to fully pay all liabilities of the company, and the liquidation surplus will be divided among the owners. A company enters into dissolution on the date of its winding-up. The entry of a

company into dissolution is recorded in the Register of Companies. During the dissolution process, the company uses its name with a phrase "in dissolution".

Summary of the terms from the given chapter

- Company
- foundation of company,
- foundation project,
- legal form of business,
- growing stage of company,
- stabilization,
- rescue,
- winding-up of company,
- dissolution of company.

Questions

1. What's a foundation project?
2. What basic criteria influence the selection of the legal form of business?
3. How can you characterize the growing stage of company?
4. At what stage does a company reach its optimum size with respect to market opportunities?
5. How can we define the crisis stage of a company?
6. What is a rescue?
7. How is a company dissolved?
8. What precedes the dissolution of a company?

References used

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10 BANKRUPTCY AND INSOLVENCY PROCEEDINGS IN THE CZECH REPUBLIC

Study time: 1,5 hours

Objective

Once you have studied this paragraph, you will be able to:

- Explain the term insolvency ,
- basic definition of insolvency,
- explain the methods of resolving insolvency
- explain the bankruptcy
- explain the reorganization
- explain the dischargeof debts
- define the insolvency register

Presentation

10.1 THE INSOLVENCY ACT

Since 1 January 2008, bankruptcy and insolvency proceedings in the Czech Republic have been regulated by the Insolvency Act - **Act No. 182/2006 On Insolvency and Its Settlement Methods** - which stipulates in which cases the debtor becomes insolvent, how the debtor Settles with his/her creditors and the Individual methods of such a settlement.

The cornerstone of current legislation is the Act on Bankruptcy and Settlement (no. 328), passed by parliament on October 1, 1991. The current legal framework has been amended several times. As a consequence of these changes, the law now represents a reasonably functional mechanism for bringing about bankruptcy proceedings in the Czech Republic.This Act, like most bankruptcy acts found in market economies, has both a legal and an economic aspect. The legal aspect“ divides the loss” among the creditors while at the same time temporarily safeguarding the assets of the debtor. The economic function removes unproductive businesses from the market, thereby releasing their economic resources to developing businesses.

Czech Bankruptcy legislation applies to a physical person, non-entrepreneur; individual entrepreneurs and legal entities, including commercial companies, state enterprises, and co-operatives

A debtor (a physical person - a non-entrepreneur/an entrepreneur) is insolvent if he/she has more creditors with past due receivables (longer than 30 days) and he/she is unable to repay such obligations.

In the case of an entrepreneur, he/she is insolvent if over-indebted, a scenario under which he/she has multiple creditors and the sum of liabilities exceeds the value of his/her assets.

❖ The insolvency register

The insolvency register is a publicly accessible list that holds information about the insolvent party and the status and course of the insolvency proceedings stipulated by law. The insolvency register is also used to deliver a significant portion of court documentation related to the proceedings. It is, therefore, up to the creditors of the insolvent party to protect their rights and to monitor the proceedings that might be relevant for them by regularly monitoring the insolvency register. The insolvency register is accessible electronically.

10.2 METHODS OF RESOLVING INSOLVENCY

1. Bankruptcy - is the most frequent method of dealing with a debtor's insolvency

2. Reorganisation - is used for gradual fulfilment of creditor's claims while maintaining the operation of the debtor's company

3. Discharge of Debts - this method of resolving insolvency is limited only to physical person, non-entrepreneur

4. Minor bankruptcy - is a shortened and simplified version of bankruptcy

❖ Bankruptcy

Bankruptcy the traditional method of dealing with insolvency

The bankruptcy proceeding represents a gradual sale of the bankrupted property, the acquired revenue being divided among the creditors based on conditions stipulated by law.

Bankruptcy proceedings are declared by the commercial court. Should the court establish that all the conditions have been met for a declaration of bankruptcy, it will issue a bankruptcy order. After the court declared that bankruptcy proceedings can take place, it appoints an administrator to manage the assets of the bankrupted party.

Administrators are becoming specialised and are being chosen according to their area of expertise. Administrators are being compensated financially by the creditor at the end of the process depending on how competent they are and how quickly they perform their tasks.

If the court determines that the conditions for declaring bankruptcy have been met, it will make a formal declaration which has the following effects:

- Control and the right to dispose of assets is transferred to the Administrator.
- All claims and obligations to the bankrupt's assets become due.
- Preferential rights to assets acquired by creditors within two months preceding the declaration are made void.
- Legal proceedings related to claims on the assets of the bankrupt party are either halted or, if the claims are secured by partial assets, continued against the Administrator.
- Ongoing privatisation procedures are halted.

Creditors can participate in bankruptcy proceedings by filing their claims with the bankruptcy court. All creditors must submit their claims within 30 days of the public announcement of bankruptcy. The claims are reviewed by the Administrator and the court.

Creditors' claims are divided into several classes, to be addressed in the order specified by the act. Receipts from the realisation of the bankrupt party's assets are then used to satisfy the creditors' claims. If it is impossible to fully satisfy all the claims listed in the same class, the claims will be satisfied on a proportionate basis.

The insolvency administrator may sell the property in two ways:

- Sale outside the auction
- Public auction (by law no. 26/200)

In the case of the debtor being a physical person, a non-entrepreneur, or where the annual turnover of the debtor does not exceed CZK 2 million and the debtor does not have more than 50 employees, the court may decide on the so-called minor bankruptcy, which is a shortened and simplified version of bankruptcy.

Usually, prices obtained at a public auction to satisfy a judgment are much lower than the price which would be obtained for that property if the seller were free to hold out for an optimal time to sell.

Bankruptcy proceedings may be proposed by the debtor, the creditors, or a company's liquidator.

Final report:

- Spending reviews
- List receivable – satisfaction
- Overview of realization of assets (sale of property - immovable assets - land, buildings, movable assets, securities, etc.)
- Quantifying the amount to be divided among creditors (satisfaction - in units of %)

Cancellation of bankruptcy proceedings:

- Resolution of the insolvency court (published in the insolvency register)
- Deletion of the debtor's business register

❖ Reorganisation

Reorganisation is used for gradual fulfilment of creditor's claims while maintaining the operation of the debtor's company; at the same time, measures are taken to improve the economic situation of the given company. In order to select reorganisation as the method of resolving insolvency, several legal criteria must be met, including consent of the relevant majority of creditors.

The gradual satisfaction of creditors' claims while preserving the debtor's business under the approved plan of reorganization with continuous control of its execution by creditors

- Plan for reorganization

Conditions:

- the turnover of CZK 100 million in the previous reporting period
- 100 employees

❖ Discharge of Debts

This method of resolving insolvency is limited only to a physical person, non entrepreneurs and requires the consent of a majority of creditors defined by law.

Following an agreement with creditors and immediate payment of a portion of claims , a debtor repays the rest of his/her debt (at least 30% of claims of unsecured creditors) in defined instalments (after the period of five years has elapsed) or in total.

- The remainder of the debt is expunged
- Proposal of discharge of debts may be proposed

Summary of the terms from the given chapter

- insolvency act
- debtor
- Creditors
- Final report
- Discharge of Debts
- Reorganisation
- Bankruptcy
- The insolvency register

Questions

1. How can we explain the term insolvency?
2. Define the Insolvency Act
3. Explain the term of methods of resolving insolvency.
4. How can we explain the term a debt?
5. How can we explain the therm creditors?

References used

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[4] Act No. 182/2006 On Insolvency and Its Settlement Methods, as amended

[5] Act No. 513/1991, Commercial Code, as amended

11 CZECH TAX LEGISLATION

Study time: 1 hour

Objective

Once you have studied this paragraph, you will be able to:

- Explain the term tax ,
- basic definition of czech tax legislation,
- define the taxpayers,
- define the Czech Tax Nonresidents

Presentation

The system of taxation in the CR is derived from the Czech tax legislation and may be modified by a particular Double Taxation Treaty. The legislation is subject to frequent amendments and changes due to rapid developments in the economy.

Taxpayers in the Czech Republic are subject to the following taxes:

- Corporate Income Tax
- Personal Income Tax
- Value Added Tax (VAT)
- Excise Tax
- Road Tax
- Real Estate Transfer Tax
- Real Estate Tax
- Inheritance Tax and Gift tax
- Energy Tax

Corporate income tax and personal income tax
Act No. 586/1992 on Income Tax, as amended - covers taxation of individuals and legal entities.

The taxation of individuals depends primarily on their residence status. Naturalized persons who have either their residence address in the Czech Republic or have stayed in the Czech Republic for at least 183 days in the relevant calendar year are regarded as Czech tax residents.

- Czech Tax Residents are subject to these taxes on their worldwide income.
- Czech Tax Nonresidents are taxed only on their income from Czech sources.

Income is regarded as originating in the Czech Republic if it is from:

- Work carried out in the Czech Republic.
- Activities carried out through a permanent establishment located in the Czech Republic.
- Business, technical or other consultancy services and similar activities, provided in the Czech Republic.
- Rental income, capital gains, dividends and other income.

The tax residency of a legal entity is its registered office or place of its actual management in the Czech Republic.

Corporate income tax

Corporate income tax is levied on:

- Income from the worldwide operations of Czech tax residents
- Czech-source income of Czech tax non-residents

The tax base is calculated from the accounting profit/loss shown on the relevant financial statements prepared according to the Czech Accounting Act and Czech accounting standards and is further adjusted by non-deductible costs and non taxable revenues and other non-accounting adjustments.

For taxpayers whose tax period is a calendar year, the standard rate of corporate income tax is 19% for calendar years 2010 and later.

For certain types of legal entities (pension funds, investment funds) a special 5% corporate income tax rate applies.

Personal income tax

Taxable income includes :

- Earnings from dependent activities including benefits in-kind (e.g., housing allowances, use of a company car for private purposes, etc.),
- Income from business activities,
- Income from capital,
- Income from rent,
- Other sources.

In general, taxable income consists of all income regardless of whether it is monetary or non-monetary. Generally, income is declared and taxed through a personal income-tax return that should be filed with the relevant Tax Office within three months after tend of the tax period.

Flat personal income - tax rate of 15% in 2014.

The employment tax base must be increased by the current Czech social security and health insurance contributions (paid by the employer) and the tax liability is calculated from this increased employment tax base - super-gross tax base. Therefore the effective tax rate is higher than the nominal 15%.

Employee’s social security and health insurance contributions are calculated as 11% of gross salary.

Employers paid additional 34% of all employees’ gross salaries to the Czech social security and health insurance authorities in 2011.

Upon the accession of the Czech Republic to the European Union in May 2004, any EU national working in the Czech Republic and his/her employer are also generally required to pay Czech social security and health insurance contributions unless otherwise exempt according to EU regulations (e.g. granting of an E-101/A1 certificate).

Value added tax

VAT is generally imposed on:

- All taxable supplies within the Czech Republic
- Goods imported into or acquired in the Czech Republic

Taxable supplies within the Czech Republic include provision of services; delivery of goods; transfer and use of rights and transfer of real estate, buildings and structures; acquisition of goods from other EU member states, etc.

Certain domestic services are VAT exempt without entitlement to reclaim input VAT (e.g., financial services, insurance services).

ll entities (individuals and legal entities) that have a registered office, place of business or establishment for VAT purposes in the Czech Republic and whose turnover exceeds CZK 1,000,000 (approx. USD 54,500) in any consecutive 12-month period must register as a VAT payer with the financial authorities/Tax Office.

The obligation to register arises, for example, also upon receipt of services from other EU member state with place of supply in the Czech Republic or upon acquisition of goods from other EU member states worth over CZK 326,000 (approx. USD 17,800) within the calendar year.

Excise tax

This tax applies to hydrocarbon fuels and lubricants, spirits and distilled liquors, beer, wine and tobacco products that are produced in or imported to the Czech Republic. The tax is calculated as a fixed amount per unit of the product concerned and is levied on the producer (importer).

Road TAX

Road tax is payable on vehicles registered and operated for business purposes in the Czech Republic. The tax is calculated according to engine size for passenger cars or weight and number of axles for other commercial vehicles. The rates range from CZK 1,200 (on vehicles with engines up to 800 cm3) to CZK 50,400 (on heavy-duty vehicles over 36 tonnes) and the tax period is the calendar year. Tax rate: CZK 1,200 – 4,200 (cars), CZK 1,800 – 50,400 (trucks)

Real Estate Tax

Real Estate Tax comprises a tax on land – Land Tax and a tax on structures – Building Tax based on the situation as of 1 January of relevant tax year.

Land Tax is imposed on land property filed in the Land Registry and is payable by the owner or, in special cases, by the lessee or user.

Building Tax is calculated according to the registered built area.

By 31 January of the relevant tax period only for the first tax period - calendar year (later only when the conditions relevant to tax assessment have changed).

Tax rate: According to type, location and purpose of use of the real estate.

Land Tax and Building Tax are multiplied by a coefficient that varies according to the location, ranging from 1 to 4.5 (the highest coefficient applies to Prague). Municipalities can further determine a local coefficient to increase the taxpayer's tax liability for certain types of real estate.

Summary of the terms from the given chapter

- tax legislation
- Taxpayers
- Czech Tax Residents
- Czech Tax Nonresidents
- Corporate income tax and personal income tax
- VAT - Value added tax
- Excise tax
- Road TAX

Questions

1. How can we explain the term tax legislation?
2. Define the taxpayers.
3. Explain the term of Czech tax nonresidents.
4. How can we explain the term VAT?
5. How can we explain the therm tax rate?

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[11] Act No. 586/1992 Coll. on Income Tax, as amended

[12]Act No. 337/1992 Coll. on Tax and Charge Administration, as amended

[13]Act No. 563/1991 Coll. on Accounting, as amended

[14]Act No. 589/1992 Col., on Premiums for Social Security and Contribution to the State Policy of Employment, as amended

[15]Act No 550/1991 on general health insurance (last amendment 206/1996)

12 THE ELEMENTS OF MANAGEMENT

Study time: 2 hours

Objective

Once you have studied this paragraph, you will be able to:

- Explain the term management,
- basic definition of management,
- explain the structure of management levels in company,
- define the personality of a manager, his characteristics and skills,
- define the competences of a manager,
- explain the basis of management roles,
- define the aspects and attributes of the personal profile of a manager,
- explain the individual management levels in a company.

Presentation

12.1 MANAGEMENT

Management as a term

At the beginning, it is necessary to clarify the meaning of the term management. The word comes from the Latin word manus (meaning a hand), which was taken over by English as a verb to manage (meaning "lead", "direct"), which "**management**" (meaning control, leadership) is based on, and began to be used internationally.

However, in Czech literature, we can still come across the traditionally used word **control**. "*E.g., a popular Czech monthly magazine for those interested in management issues is called Modern Control. This also applies to the names of some books by Czech authors, or a dictionary, which is often used in Hospodářské noviny newspapers and other economic press*." [1].

Definition of management

Nowadays, we meet the terms of management and manager almost daily. But there are many different definitions of what management is and who a manager is. According to Vodáček and Vodáčková [1], the term "management" has three different definitions:

- Leading people, or "achieving the goals of an organization using the hands and heads of others". This definition can also include the thoughts of Cejthamer and Dědina [2]: "Management is an activity mobilizing human and material factors in the company in order to secure the company objectives. ",

- specific functions performed by the executive staff, including planning, organization, leadership of people and control of the activities through the execution of which the executives achieve the objectives of the organization,
- purpose and tools used. According to this definition of Vodáček and Vodáčková [1] "management is a set of approaches, opinions, recommendations and methods that are used by the executive staff (managers) in order to handle managerial functions aimed at achieving the objectives of the organization".

Veber et al. [3] adds the following definitions to the three ones presented above, namely:

- Management is a group of managerial staff,
- management is a field of science where management represents a structured set of facts, mostly observed from practice, which are processed in the form of instructions how to act, or principles.

The **most general** way how to characterize the term presents management as "the sum of all activities that need to be done to ensure the operation of the organization" [3].

Almost every textbook of management admits that there is no precise and uniform definition of management. They offer both their own definitions and other already mentioned in previous publications. E.g.:

"*Management is a process that takes place between individuals, respectively group(s) that controls, i.e. the controlling entity and the individual or group(s) that is controlled, i.e. the controlled object*."[4].

"*Management can be understood as a process coordinating the activities of a group of workers, performed by an individual or a group of people in order to achieve certain results that cannot be achieved through individual work*." [5].

"*Management is a field that allows joint performance. Its task is to build organizations that work*. "[6].

12.2 MANAGEMENT LEVELS

Managers represent an important element of the organization of company functioning. At present, when companies grow and are divided into many departments, the demands on management of organizations and the managers keep increasing.

To ensure the outcomes and an efficient operation of the organization, management as a group of executives has to act on more than just one level. The most common contemporary management division recognizes three levels, where the individual levels differ from each other in terms of their powers and responsibilities.

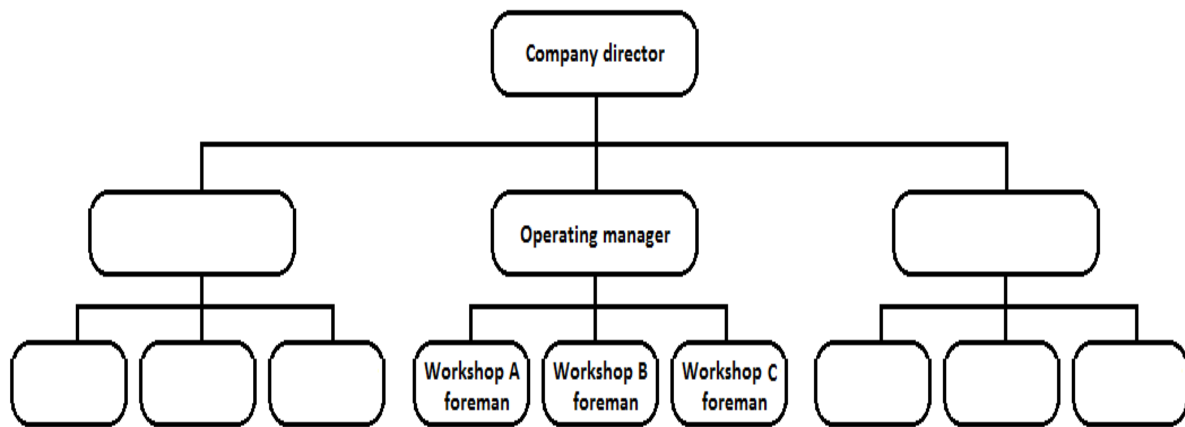

Figure 17 shows the structure of management levels in a company. [1]

Figure 17 Structure of management levels in a company [1]

First-line managers are found at the lowest level, which includes leaders, foremen or shop mangers. According to Armstrong [7], their duties include the management of executive staff, the management of operating costs, the organization of work, the quality control and performance measuring. Line managers are responsible for the communication of company strategies and plans to executive staff that are then responsible for the execution of the results. **Middle management** is the largest group of managers in the organization. This group includes the managing staff of departments such as sales, purchasing, human resources, etc., and their main activities include providing and obtaining information (up to 40 % of their working time), organization and leadership. The most senior managers - **top management**, top executives - are mostly responsible for running the organization, and they basically formally represent the owners of the organization in its management. Their main duties are the development of concepts, strategies, visions and goals of the organization. [3]

This breakdown can also include other types of managers, such as project managers, quality managers, etc. [3]. We can always say that a concrete breakdown of management in each organization is different. A small company of 20 employees will have different division than an international company with 5,000 employees.

Development of management

According to Bělohlávek et al. [8], we can speak about a systematic study of the management of people at the end of the 19th century. The main reason is undoubtedly the expansion of railroad that enabled the improvement of transportation of raw materials, resulting in a concentration of production and a formation of large production units.

However, on the basis of the definitions provided above, we can find the roots of management much deeper in history. Building pyramids in the ancient period or castles in the medieval times required management. Bělohlávek et al. present the Roman Empire as a model for building organizational relations in our culture. However, if we consider the consequences, the first manager ever can be called Homo Sapiens as a representative of the leader of the tribe.

Management in practice

Bělohlávek et al. [8] point to the fact that management is not an exact science, such as mathematics or physics, but it consists of principles based mainly on practical experience, which may be discovered by an exceptional individual without any theoretical knowledge.

Vágner [9] sees management as a science as well as an art. "*Science and the art of management are not against each other, but they complement each other*." He also states that the share of theory on management practice is about 20-30%, which is a relatively low figure, and there is an effort focused on increasing this ratio due to a decrease of efficiency in management practice.

Thanks to these findings, we often come across the fact that some, mostly older, managers show displeasure towards learning theory, because they have many years of practical experience which they draw from. A quote following an example from the introduction of management can serve as an argument in favour of learning theory: " *... until medicine became a systematic discipline that could be taught and improved, not much was expected from it. Today, there are good doctors and worse doctors, but medicine as a field of study raised the performance level of an average doctor high above the level of the most talented doctors 100 years ago*." [6]

12.3 PERSONALITY OF A MANAGER

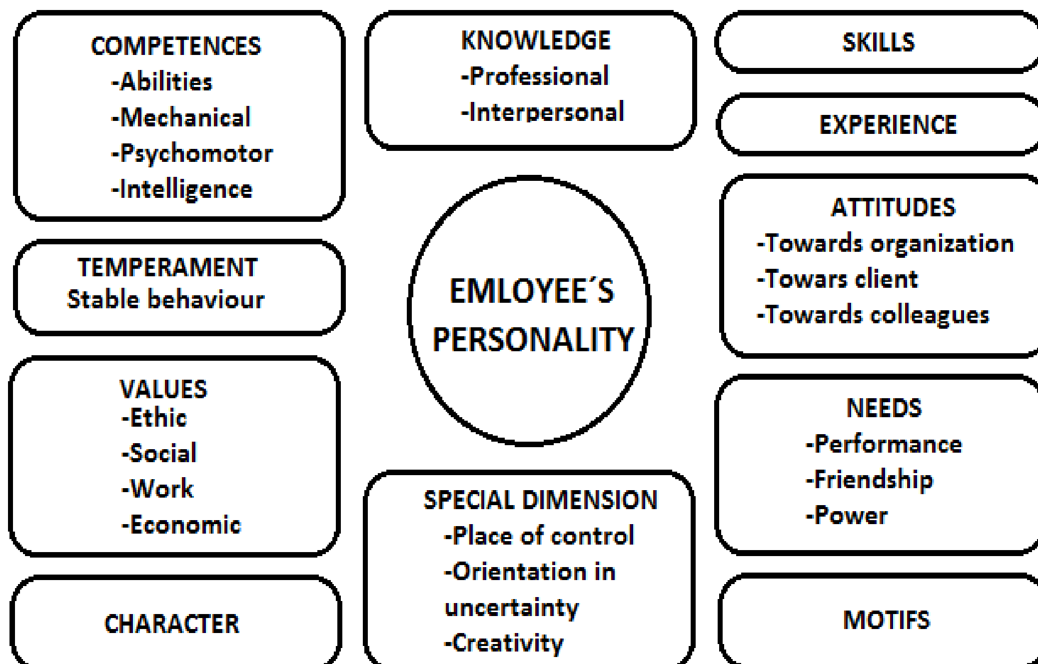

Figure 18 shows a map of the personality structure of a manager. [10]

Figure 18: Map of personality structure of a manager [10]

Managerial roles

Vodáček [1] defines both the reasons and the classification of managerial roles, which he considers to be a specific modification of the concept of managerial functions describing the requirements of management training for the heads of organizational units.

These are mostly senior executives who must be more focused on what is happening in the external business area.

Henry Mintzberg, who formulated the concept of managerial roles as early as in the 1970s, and whose publications are used as a basis by all the other authors, who mention this term in their publications, is considered to be a spiritual father of managerial roles. "*As he himself said, he was trying to compare the hype and the facts about what managers actually do, i.e. whether their key activities correspond to their management functions.*" His conclusion was that the managerial activities can be summarized in ten roles that can be classified into three groups:

- **Interpersonal role** - it depends on the formal power and responsibility of the executive regarding communication both outside his own managed organization (customers, suppliers, etc.) as well as within his own organization (superiors, subordinates, etc.). Basically, there are three sub-roles: representative of organization, leader of the organization, linking element.
- **Information role** - the involvement of a manager in the information processes, i.e. in the creation, collection, transfer, filtering and use of data. Again, there are three sub-roles: monitoring information recipient, information propagator, organization spokesman.
- **Decision-making role** - the main manifestation of manager's activity focused on achieving the desired goals of the organization. Four sub-roles: entrepreneur, problem solver, resources allocator, negotiator.

The basic roles of managers, according to Mintzberg, are shown in Figure 19. [11] According to Mitzberg, the skill of a manager is to achieve harmonized integration of these roles that are interconnected and mutually qualitatively conditioned. The conclusions drawn from the comparison of managerial functions and managerial roles shows that these roles apply primarily to senior top managers.

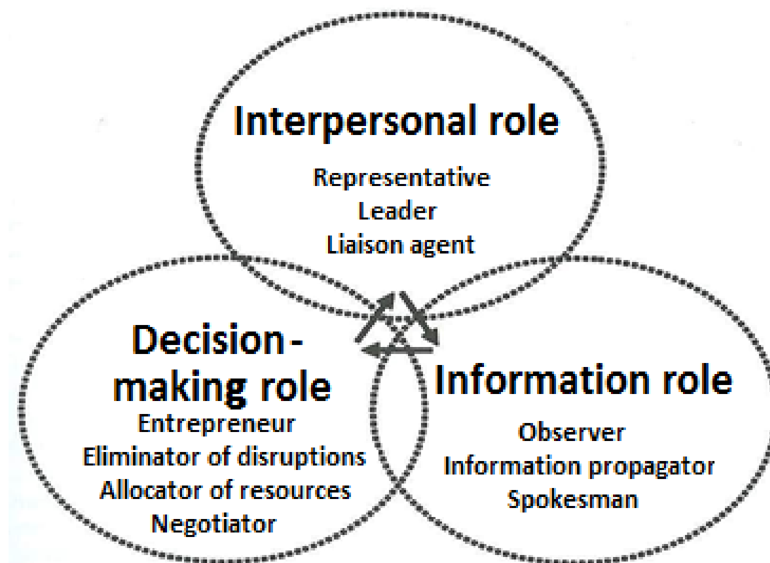

Figure 19 Basic roles of mangers according to Mintzberg (1980s – 1990s) [11]

Managerial qualities and skills

Authors' opinions on what the qualification of a manger should consist of vary, in the crucial point, however, they agree that there must be a harmony of two dimensions:

- **Proficiency**
- **Behaviour**

In the case of **behaviour**, or in other words, the "human dimension", it is a series of elusive features. A manager acts as a person who communicates and motivates, the qualities that stand out here include charisma, credibility, leadership, etc. "In case of managers in this context, we can ask ourselves a question of what kind of person is the manager." [3].

Professional qualities are acquired mainly trough learning, both from practice and theory. For the sake of simplicity, we divide professional skills into hard skills (e.g. managerial accounting, risk management, valuation of projects), and soft skills or competences (e.g. time management, solution of conflicts, leadership, etc.).

12.4 COMPETENCES OF MANAGER

English uses two terms, competence and competency, meaning power or authority, but also ability and qualification. This causes a conflict in the perception of the word competence, as the general public perceives the word competence in terms of authority or power [7].

It is important to understand a competence in such a way that it expresses the ability, capacity to perform certain activity, to be qualified to perform the activity - "*It emphasizes the inner quality of a person, which is a result of the development of the person at that moment, more or less independent on the outside world, allowing the person to execute certain performance.* “[12]

Definition of competence

Professional literature again provides several different approaches and explanations of the term of competence, all of which extend the meaning of the word competence itself - the ability, capacity. Most definitions, however, have a common feature – they are related to the qualities of individuals that affect their performance. [1].

Kovács [13] quotes one of the most common definitions: "*The ability of a person to behave in a manner consistent with the requirements of work within the parameters given by the environment of the organization, thus securing the desired results.*"

However, there is no standardized list of competencies and the individuals or organizations can invent their names themselves, and even the same competence may not be understood the same way by two different organizations. It is caused by the fact that the expected behaviour or skills in a given situation are not the same in all companies. This is often the case in practice, because organizations using competencies and competency models “tailor-made” a precise formulation of these expectations themselves. The basic relation between measurable performance and competencies of a manager is shown in Figure 20. [14]

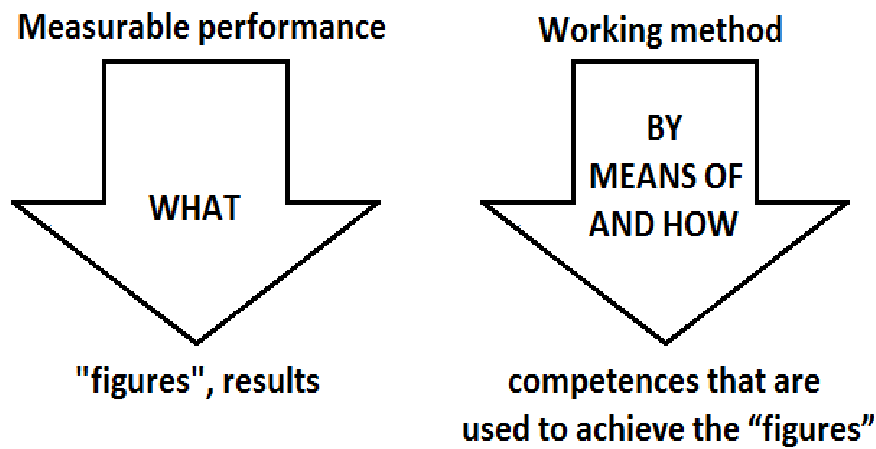

Fig. 20 Relation between measurable performance and competences [14]

Anatomy of competence

According to Woodruff [15], if a worker is competent, it means that the following three prerequisites are fulfilled:

- Has internal qualities, abilities, knowledge, skills and experience that such behaviour necessarily requires,
- is motivated to use such behaviour, i.e., he sees a value in the desired behaviour and is willing to put forth the necessary energy in this direction,
- has the opportunity to use such behaviour in the given environment.

All three prerequisites must be met at the same time so that we can speak about a competent manager. For practical use, however, it is better to talk about competencies for a particular task or location. We are able to identify their competencies and subsequently measure their level for the individual candidates. According to Figure 21 below, observable behaviour and behaviour prerequisites in terms of personality characteristics can be considered as equally important. [12]

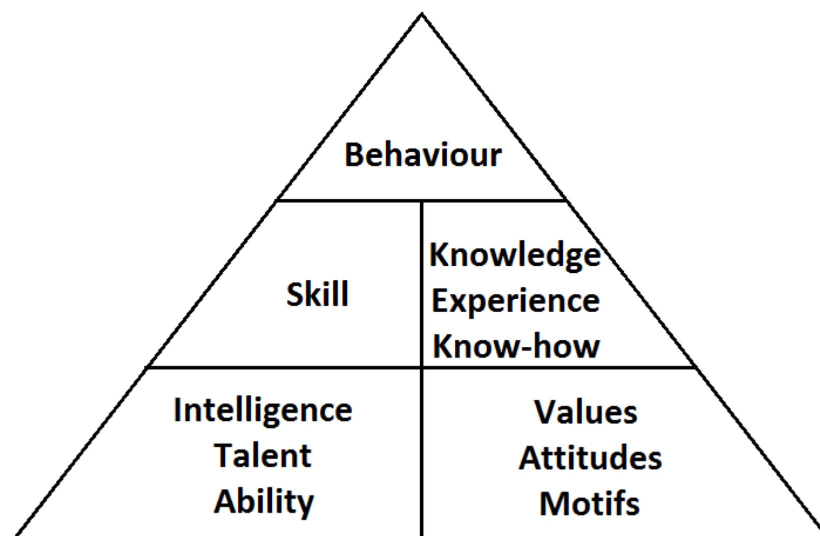

Figure 21 Hierarchy model of competence structure [12]

Types of competences

Armstrong [7] provides the following approach to the types of competences:

- **Behavioural or personal** - basic characteristics of individuals they bring into their work roles. They are also referred to as soft skills, such as success orientation, leadership, conflict management, etc.
- **Competences based on job or profession** - also referred to as hard skills. They are related to performances at work that are expected from people engaged in a specific role. In other words, they are called qualification, e.g. the above mentioned risk assessment or project evaluation, and they are "often described as a criteria-based performance standards of the profession."
- **Type, basic and specific competences** – the type ones may be universal for all people engaged in certain occupation, such as management, or type ones within the organization, either general (basic) or specific to each role.

Boyatzis [16] offered an alternative view and he classified competences into threshold and performance ones. Threshold ones were identified as basic competencies required for the execution of a job, but he did not distinguish between high and low performance employees. This is the reason why he sets aside the performance competencies that distinguish between these two types.

12.5 COMPETENCE MODEL

Competence models for specific managerial positions serve companies in the field of human resources management. They help in the selection of new managers, or in the development of competences of the individual managers. It is essentially a look at what skills, knowledge and conduct the company expects from its employees and what behaviour should be developed and rewarded. It is therefore very difficult to improve human resources management system in a company that hasn´t got an established competence model. [11]

What are competence models?

The answer to this question was very well described by Kubeš et al. [12] He describes a competence model as a combination of competencies that are required for an effective execution of tasks in the organization.

According to Kovács [11], a countless number of theoretical models of competences and their variations have been created during the last 30 years, while R. Boyatzis and a consulting and research company McBer et al., which he was managing, has been regarded as the most beneficial since the 1970s.

What model should a company implement if it decides to implement one?

Kubeš et al. [12] point out that the kind of model mainly depends on the intentions of the company. "*If he is looking for an answer to a question of which competencies are common and inevitable for all employees, regardless of their position or role in the hierarchy, it is the so-called model of central competencies.*" They use a company from service sector as an example, and its central competence is the customer orientation, which is important both for the end workers and for the top managers creating the company strategy.

Another type of model is focused directly on specific positions or the hierarchy level, mostly on managerial positions. "*It's usually a very accurate description of the characteristics of behaviour,*

because such models take into account a lot of specific information." The outcome is a very accurate description of the expected behaviour of a manager, taking into account the business objectives of the company, and it provides a valuable guidance for further managerial education.

There is a question whether it is possible to use a competence model of one company as a competence model of another one, even if it is engaged in the same industry. The logical reply is yes, but it's not that simple. As mentioned in the definition of competence, the descriptions and names of competences are created by the companies themselves. In addition, the model also reflects the company's strategy, which is why the individual competencies will be represented by more or less different behaviour. This fact leads Kubeš to the issue of generic competencies and generic competence models. These terms refer to the aforementioned fact that the same generic competence will be represented by different behaviour in different companies, even within a single company, but two different departments.

Generic models are general models of competencies for specific positions (sales manager, chief accountant, etc.) representing an appropriate tool backed by extensive research during the formation of competence models of a company. The downside is that they do not reflect the specifics of the company (it is basically impossible). That is why they represent a compromise that can be used as a basis for gradual adjustments according to the specific features of the company and the selected location. Finally, it should be noted that the model is the more effective, the more specific the group of workers for whom it is intended is.

Use of competence model

"*Competence models can significantly consolidate the view of what will be required in the future and what behaviour we should encourage, develop and reward.*" A great benefit of these models is mainly the fact that they introduce a very strong element of measurability into human behaviour.

It may raise concerns among the employees and managers that they will be under large one-sided pressure to change behaviour. However, they do not realize that the pressure to change behaviour may also come because of competition from the organization where they work or from unsatisfactory economic results, which is why the competence model needs to be considered as an opportunity to prepare for changing conditions, reduction of weaknesses, and development of the strong ones in advance, thus simultaneously increasing their value in the labour market. [11]

The use of competencies in human resources management processes is shown in Figure 22. [11]

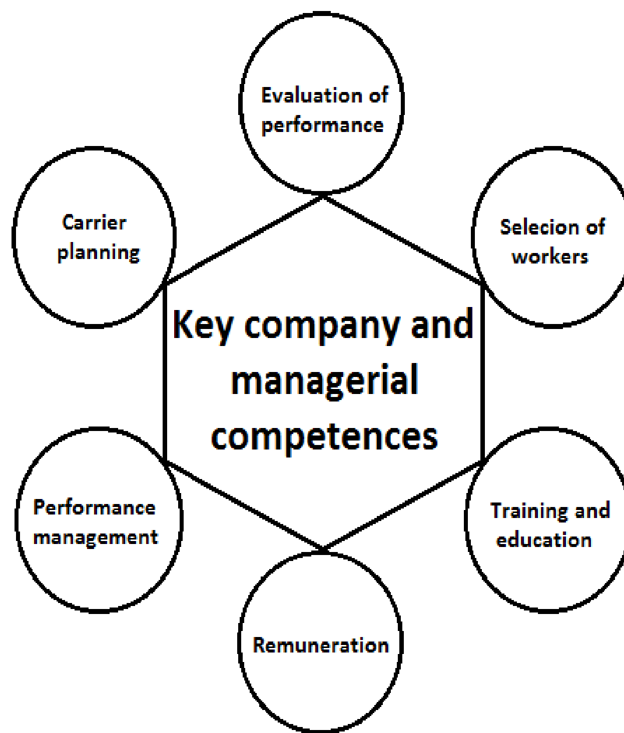

Figure 22: Utilization of competences in human resources management processes [11]

Approaches towards the creation of competence model

There are several approaches to creating models from which the organizations choose in cooperation with external consultants. Rothwell and Lindholm [17] divide the approaches into three basic groups:

- Prescriptive or "borrowed" approach,
- combined approach,
- tailor-made approach.

The choice depends on several factors, such as the objectives of the organization, the level of development, etc., but reality shows that the decisive factor is finances, while especially here, not to save does not mean to waste. If a company decides to save, the money they spend can help them acquire a competence model that is too general, and that will ultimately have minimal benefits. The individual approaches are elaborated by Kubeš et al. [12]

Prescriptive approach to modelling competencies means that the organization decides not to create new models, and it takes over a completed one. It is the cheapest option and it is not time consuming either. However, the disadvantages are evident. As mentioned above, anything that is taken over from the outside does not reflect the uniqueness of each organization, and may not be in compliance with the specific conditions of the organization.

Tailor-made approach does not take over anything, and it maps the territory and the key competencies directly in the organization in question. However, it requires a deep knowledge of the positions, organization and external conditions in which it works. It is therefore methodologically more demanding, expensive and time consuming, but it produces a sound basis for all other decisions of personnel management.

12.6 IDENTIFICATION OF PROBLEMS AND NEEDS

The education of managers should focus on concrete results. As stated by Prokopenko et al. [18] "*The main outcome of good management is an improved performance of the organization, and each reasonable assessment of educational needs should begin with an analysis of the organization (performance) problems*." In other words, for an effective development, it is necessary to identify those problems, skills and competencies that are crucial for the manager and that he should develop. There are many identification methods; I will present only those procedures that will be used in the practical part. Should the reader be interested in more information, Prokopenko devotes 34 pages to this problem in his quoted publication. However, the description of the analysis will be based on the findings published by Armstrong. [7]

Work position analysis

It is based on gathering and analysing information in order to obtain the foundations for a job description. "*We focus on what the job holder is expected to do.*"

According to Armstrong, a well-conducted job analysis should provide the following information (only the information relevant to the work is mentioned):

- General purpose - what the position serves for, what the worker contributes to,
- content - the process of converting inputs into outputs,
- responsibility - results the holder is responsible for,
- performance criteria - job evaluation measure,
- organizational factors - the relations of subordination, respectively superiority of the job holder.

Analysis of role and competence

The analysis of role also collects information about the job, but the main purpose is to describe the role played by the employee performing the job. It is not focused on the content of the job itself, but on the broader aspects of behaviour expected from the holders of the job.

The analysis of competence deals with a functional analysis so as to determine the competences for performance of the job in order to determine the dimensions of behaviour that affect the job performance. In other words, it searches for competencies that "*are related to the expected performance in the workplace - what the people should be able to do - and output standards that the people should achieve while performing the specific roles.*"

When collecting data for the analysis of a job, role and competence, the most commonly used methods include interviews, observations or study of company documents and working procedures.

Job analysis by means of interview

According to Armstrong [7], it is the best method if you want to obtain a complete view of the role, job and competences. However, each of these areas has a specific sphere of questions we have to ask. In the analysis of role, the objective is to obtain the important facts necessary to create a profile of the role. In order to conduct an interview, it is useful to develop a basic set of questions for the interview and to follow them during the interview. Armstrong presents eight basic questions:

- What is the name of your role?
- Who do you report to?
- Who reports to you?
- What is the purpose of your role?
- What are the main activities carried out within the scope of your role?
- What results are expected from your role?
- What are you expected to know to have the role?
- What skills should you have to perform the role?

Armstrong [7] also explains the instructions for a job analysis by means of interview. It is useful to study the internal materials or the working procedures in advance. Afterwards, you can prepare a list of basic questions that help the worker to describe his job.

It is suitable to continue with questions in which the job holders can express their feelings about the job, which may be an important clue to discuss and reveal some hidden problems. The questions about the extent of supervision performed by a superio, typical issues they solve in their job, or the relative difficulty of tasks that need to be addressed can serve as an example. Armstrong provides an extensive list of questions for analyses in his publications.

Summary of the terms from the given chapter

- Management,
- division of management,
- manager,
- personality of a manager,
- managerial activities,
- managerial role,
- competences of a manger,
- competence models,
- job.

Questions

6. How can we explain the term management?
7. Which basic functions of management does the company perform?
8. Define the personality of a manager.
9. Explain the term of competences of manager and their use in practice.
10. Try to give specific examples of managerial qualities and skills and try to divide them according to management levels.

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13 THE PRINCIPLES OF STRATEGIC COMPANY MANAGEMENT

Study time: 3 hours

Objective

Once you have studied this paragraph, you will be able to:

- explain the principles of strategic management,
- explain the principle of strategic management and its role in a company,
- describe managerial functions,
- name and describe the most important aspects and attributes of strategy and strategic management,
- define the mission of company,
- explain strategic analysis,
- describe the basic development levels of strategic management.

Presentation

13.1 INTRODUCTION OF THE TOPIC

At the beginning, it is necessary to become familiar with the terms that we are going to use in this chapter. The special terms of "**control**" and "**management**" are often mistaken in practice. While management is focused exclusively on control at the level of companies, institutions, interest groups and individuals, the term "control" can be seen in the broader sense (where it can mean a control of material systems, regulation of mixed systems or influencing social systems), or in the narrower sense, where the term "control" is semantically identical to the term "management" [36].

Strategic management is a kind of management, so it is useful to remind you of its definition and the general principles of the rules of management at this point. The purpose of management is defining and achieving managerial objectives. The essence of success of management and manager is based on how he is able to perform these two activities.

Management is a field of very broad opinions. Scholar literature provides both the different concepts of the content of managerial functions and their different classification. The following part describes the basic managerial functions, which a vast majority of managers perform within the scope of their actions.

Managerial functions can be characterized as typical activities aimed at achieving objectives that managers constantly perform during their daily activities. A managerial function is executed through management processes (activities).

Most common classification of managerial functions is:

- **Progressive (sequential) managerial functions:**
    - Planning,
    - Organizing,
    - management of human resources,
    - leading people,
    - controlling.

- **Continuous (parallel) managerial functions:**
    - Analysis,
    - decision-making (assessment of situation),
    - execution (render) of a decision.
- **Progressive (sequential) managerial functions**

PLANNING – is an information process of selecting and setting goals, as well as selecting and setting the methods used to achieve them. Planning precedes the execution of all other subsequent managerial functions, because it involves setting the goals. The outcome of this function is a plan.

Of course, the character of the planning process differs in relation to the length of time the plan is set for, and we distinguish:

- ✓ Strategic planning - Long-term objectives, which are crucial for the long-term direction of the company and its marketing activities, decisions on the allocation of financial resources, human resources development, research and development.
- ✓ Tactical planning - Short-term, partial targets setting the best ways to achieve the long-term objectives (as defined in the financial plans, production and sales plans, etc.). Partial plans must be interconnected.
- ✓ Operational planning - This involves solving daily current tasks that often arise from certain situations and requirements.

In any of the above described types of planning, it is always necessary for a manager or entrepreneur to respect the principles of the SMART method.

ORGANIZING – is an information process leading to the identification and time and space arrangement of an optimal structure of roles for employees who have to ensure the execution of the plan in the organization in question. An essential aspect is to determine the powers and duties of managers and other conditions. Organizing involves a preparation of an execution organization structure that creates a suitable environment for an effective cooperation of individuals and groups in order to achieve the given objectives.

Quality organization must make sure:

- ✓ It is clear what to do and who should do it, who is responsible for the results.
- ✓ The organizational barriers in the performance of planned activities are removed.
- ✓ There are decision-making and communication links necessary to solve the existing problems.

HUMAN RESOURCES MANAGEMENT – is a decision-making process in the area of personal relations, which affects the performance of employees and organizations. Emphasis is placed on the professional and qualification prerequisites of workers. Human resources management is the process of recruitment of the necessary and skilled workers, their adaptation to the new environment and the process of maintaining the selected position. It takes advantage of the knowledge from the areas of psychology, sociology, law and work organization.

The main tasks of human resources management:

- ✓ Recruitment and selection of employees
- ✓ Adaptation of employees to the benefit of the company and the personality of employees
- ✓ Evaluation of the results of work and behaviour
- ✓ Stabilization (keeping) of the employees

STAFF SELECTION – means influencing employees so that they are efficient and help in achieving the organization objectives. It is a purposeful process aimed at managing human resources so that their actions successfully fulfil the objectives of the company.

We distinguish the following basic management styles (methods of application of powers):

- ✓ Autocratic style
- ✓ Democratic style
- ✓ Liberal style

CONTROLLING – involves the measurement and correction of the executed activities of an organization in terms of their compliance with the plan. It is an assessment of the quality and quantity of intermediate and final results of managerial activities. The essence of controlling is an objective evaluation of the completed work in terms of the defined objectives. Controlling functions as a feedback, i.e. in terms detection and eventual correction of any deviations of the actual state from the planned one. The aim is correcting the work processes so as to achieve the objectives as efficiently as possible in the interest of further development of the organization.

The basic controlling process consists of three steps:

- ✓ Setting the standards
- ✓ Measurement of completed work in terms of the defined standards
- ✓ Correction of the identified deviations from standards and plans

Continuous (parallel) managerial functions are linked with progressive managerial functions. They include:

ANALYSIS OF THE PROBLEMS THAT ARE BEING SOLVED - The purpose of this analysis is to understand the nature of the problem. The analysis is focused on the assessment and evaluation of all partial elements of the task, taking into account the real situation. It involves thinking about the task itself, and an assessment of the material side of the task in terms of time, place and context. An assessment of the situation requires recognizing all the possible and feasible solutions of the task, taking into account all the factors that are relevant in the issue in question. An assessment of the situation subsequently leads to a decision.

DECISION-MAKING - A process during which the manager selects the best alternative of solution based on the defined criteria. It examines and assesses the positive and negative impacts of the individual options. The essence lies in the comparison of the options and the selection of the optimal one. Decision-making is a logical outcome of the analysis of the problem, immediate actions, and assessment of the situation. A decision reflects the intention of the manager, and what he wants to do to fulfil the task. A decision is a plan aimed at meeting the given task and the predominant method of action.

EXECUTION OR IMPLEMENTATION – A decision should be simply and clearly expressed in the execution (rendering) of decision. The decision shall be issued as: task, regulation, directive, and order. In case of routine, standard tasks (actions), it is generally not necessary to take an independent decision every time, but these decisions are generalised in the form of uniform, binding procedures (standards, guidelines, standard projects, etc.).

In real business practice, these basic types of managerial processes can be specified even more and in a more concrete manner.

There are many **definitions of strategy** and strategic management and they vary according to the angle of view of various authors on corporate practice. At present, there is a widely used definition that includes a link between the objectives and the way how they can be achieved. Keřkovský and Vykypěl [21] state that "**strategy expresses the basic ideas about the way that will be used to achieve the company objectives**." Another definition, which also includes the resources available to the company, is presented by Dedouchová [2]: "*Strategy sets the long-term objectives of the company, the course of the individual strategic operations, and the allocation of company resources necessary to meet these objectives so that the strategy is based on the needs of the company, so that it takes into account the changes in its resources and capabilities, and, at the same time, it should adequately respond to changes in the environment of the company*. "

A correct business strategy is an essential prerequisite, as well as a necessary condition for the success of the company in a difficult competitive environment. Business success depends largely on the ability of the company to detect external opportunities as well as threats, or potential problems of strategic nature. A strategy is a way how to achieve the business objectives. These objectives are long-term, strategic business goals. Company strategy is based on the objectives, and their determination is part of strategy.

The origin of the word strategy can be found in ancient Greece. It is believed that it might be based on the Greek word **stratégiá**, which is the ability to conduct military operations, or **stratagem**, which expresses a surprising inventiveness, an unexpected turn, a deception, an elusion, or a trap, generally speaking, a "trick". It is therefore clear that its application comes from military area. The origin of strategy as warcraft can be traced back in the book by Sun Tzua *The Art of War* from 500 BC, which has surprisingly returned to the bestseller list in recent years.

In modern history, the renaissance of this concept was found in military field again. In 1688, the word strategy was incorporated into English vocabulary. According to *James´s Military Dictionary* from 1810, it is differentiated from tactics, which means an immediate action in the face of the enemy. A strategy represents something that is done "out of sight of the enemy" [1]. From the military sphere, strategy quickly spread into virtually all areas of life - politics, diplomacy, sport and, of course, the business area.

The beginning of strategic actions of companies is found in their efforts to identify the true causes of success of some of the subjects in the market. These activities, first recorded in business practice in the early 1960s, were mainly focused on issues related to monitoring the causes of success of selected companies acting in the market environment.

Practically the first comprehensive article on company strategy can be found in the book by Igor Ansoff called **Corporate Strategy**, issued in 1965. This book is a serious, analytical and comprehensive work that has moved the thoughts on strategy to new levels.

13.2 THE ESSENCE OF STRATEGIC COMPANY MANAGEMENT

The dynamic development of strategic management dates back to the early 1980s, when the idea that the future success of a company depends not only on the environment, but also on the quality of the human resources, technology and key abilities of the organization began to gain support. Keřkovský and Vykypěl define strategic management as: "Activities focused on maintaining a long-term harmony between the mission of the company, its long-term objectives and the available resources, as well as between the company and the environment in which it exists." [21]

According to Vacík the Šulák, the definition of strategic management is: " *the art and science of how to formulate, implement and evaluate such decisions that will ensure the set objectives are achieved in all functional areas of the business entity.*" [35]

According to this definition, the strategic management process is divided into stages by the strategy formulation, implementation of the strategy, and its evaluation.

The process of strategic management therefore represents a never-ending process, when, according to the strategic objectives of the company, strategies are designed, implemented and evaluated, based on which the strategic objectives and visions of the company are updated. [31]

Strategic management is connected with decision-making and long-term issues of the company. It creates a kind of framework for tactical and operational planning, which are inherently of short-term nature. As a rule, plans or short-term decisions should not be in conflict with the concept of strategic management. It also focuses on identifying the opportunities that the company is able to meet with its resources, thus creating a competitive advantage.

Strategy is also defined with reference to the **vision and mission of the organization** (see below). For example, Z. Souček states that the strategy of the organization expresses its mission and vision (i.e. the future form), strategic objectives, and strategic operation (i.e. activities ensuring the fulfilment of the mission, vision and the strategic objectives). [33]

Similarly, M. Drdla and K. Rais state that strategy should be based on the vision of the company, while the vision is shortly seen as the ideas of company owners. [3]

The mutual relationship between vision and strategy is dealt with by J. P. Kotter, see the scheme in Figure 23. [25]

He also deals with vision which, according to him, "*represents a certain picture of the future with a more or less accurate commentary explaining why people should try to create that future.*" [25] He also says that a good vision serves for three purposes. Firstly, according to him, the clarification of the general direction summarizes hundreds and thousands of more detailed decisions in a simple manner, secondly, it motivates people to step in the right direction, and thirdly, it helps to coordinate negotiations of various (and many) people. [25]

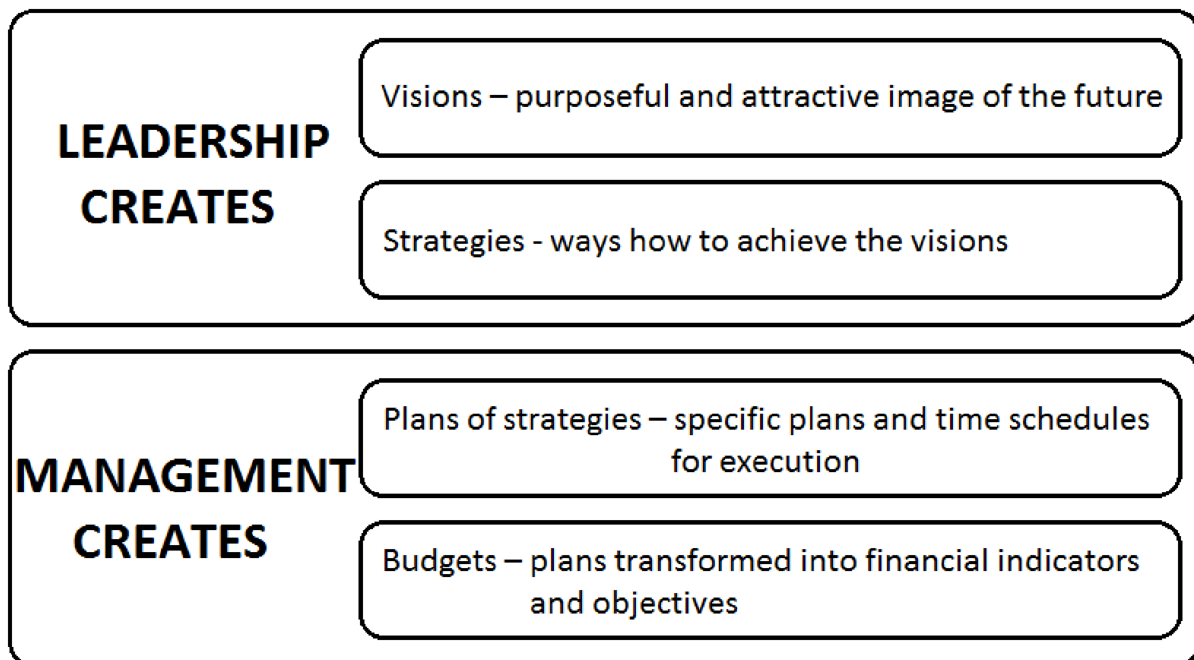

Figure 23: Relations among vision, strategies, plans and budgets [25]

13.3 MISSION OF THE COMPANY

A **mission of the company** is the reason why the company exists in the market. Defining the mission of the company is a key task of the owners, respectively of the management of the company. The mission usually defines the range of the company and concisely informs about the values that the company believes in and respects. Similar to the term of mission is the vision of the company, which usually describes certain direction of company development for the period of 10-20 years. The purpose of a mission is to communicate the general basic rules the organization has issued for itself to those who are involved in strategic decision-making. A mission should be formulated in a broad sense and it should act as a permanent declaration of intention; it is essentially a working document - and to be effective, it must be both brief and clear.

A well-formulated **mission** of the company is inspiring. It must be sufficiently specific and yet, it should also be general enough to leave space for people to use their initiative.

Every company (organization, institution) was founded and exists to fulfil its specific mission - the production or provision of services to its customers. This mission of the company corresponds with the basic ideas of the company founders related to what line of business the company will follow, who the company customers will be, what needs and what products and services the

company will provide to satisfy the needs of its customers. A mission expressed in such a way fulfils several functions at the same time:

- It expresses the basic strategic plan of the owners and the top management of the company, while the company strategies follow its mission and they specify it in concrete areas.
- A mission has a significant external information importance, as it declares the mission of the company to the public and, in this way; it exposes the company to public control. As a result, it generally improves the perception of the company by public. A publicly declared mission provides the basic information to important parties necessary to form an opinion on the company: future shareholders, employees, suppliers, and customers. The owners and top management of the company who formulate the mission give the public clear signals of their existence, position and long-term business plans.
- A mission represents a basic standard of the behaviour of the management and ordinary employees. In developed countries, it is quite common that employees are very closely informed about the mission of the company.

The mission actually expresses the broadest and highest level of objectives of the organization.

13.4 COMPANY STRATEGY

A strategy of the future conduct of the company answers the question of how to achieve the goals set in compliance with the vision of the company management. If the management of the company focuses either, solely or largely, on operational planning, it leads only to a short-term success. Insufficient concept of the company will become apparent in the longer term and the performance of the company will stagnate as a result of that. It was captured by Henry Mintzberg who said: "*If you do not have a vision, but only formal plans, then every unexpected change of the environment will make you think that everything is falling apart in your hands.*" [19]

According to Dedouchová, strategy can be looked upon from the point of view of its traditional and modern definition. [2]

1. Traditional definition understands strategy as a "*Document that defines the long-term company objectives, it determines the course of operations and the allocation of resources to meet these objectives.*"
2. Modern definitions understand strategy as preparedness for the future. "*Strategy defines the long-term objectives of the company, the course of the individual strategic operations, and the allocation of company resources that are necessary to meet the objectives so that the strategy is based on the needs of the company, takes into account the changes in its resources and capabilities, while, at the same time, responding to the changes in the environment of the company.*" [2]

From the above presented definitions, it is clear that the second one provides a more poignant and more accurate description of strategy in a concept in which companies should understand it in the times of dynamic and turbulent changes.

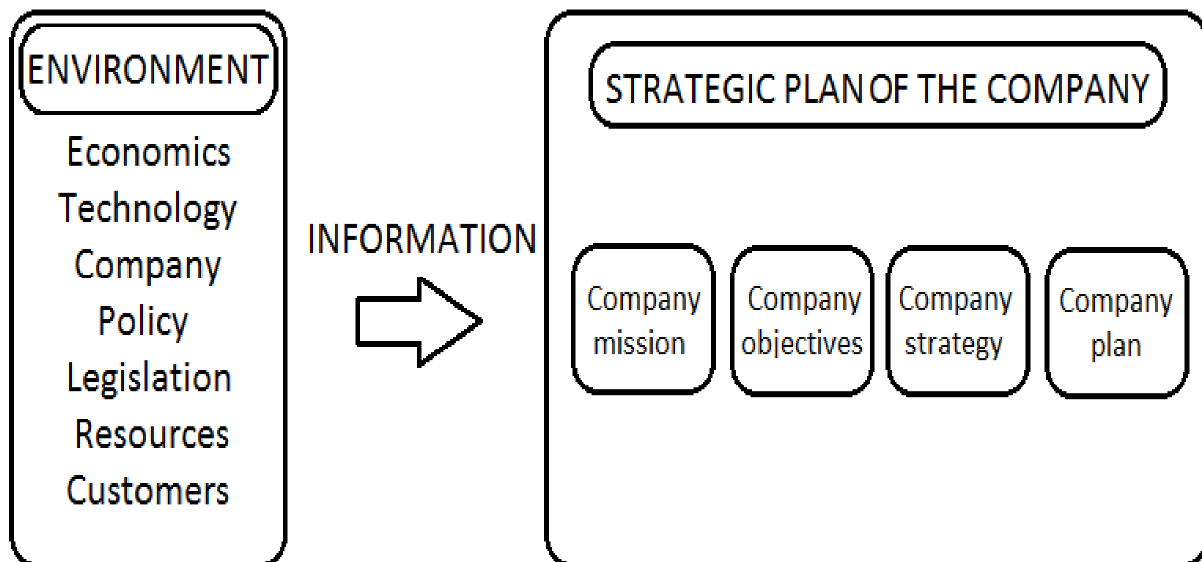

Figure 24: Company strategy in the environment [16]

The diagram in Figure 24 illustrates the process of creation of a strategic plan of a company. It is based on the analysis of factors affecting the company. With regard to these factors, management defines the mission and objectives of the company (usually in accordance with the "SMART" criteria - see below) and the strategy itself, which is updated during the changes of the above-mentioned factors.

The place within the strategic management process where it is beneficial to revise the existing strategy and implement a new one is referred to as a strategic gap. [21]

The ultimate objectives of a vast majority of companies include profitability and market share growth. Other common objectives of organizations include, for example, increasing the efficiency, product quality, customer satisfaction, etc.

Classification of strategy

The most common classification of strategy that you can encounter in relevant scholar literature is a hierarchical classification, distinguishing the so-called strategic levels. [19]

Strategies are linked to each other, and each strategy at the lower level should be based on a strategy at the higher level. The highest position is occupied by "**corporate**" **strategy**, which is located at the level of the organization as a whole, and it addresses issues such as the field of business, amount of investments, and also in which countries the organization wants to carry out its activities. [32]

Strategy at the level of business units (SBU), the so-called "**business**" or **sales strategy** deals with how to succeed in a particular market. [19]. This task is therefore how to achieve advantages over other competitors. This level of strategy is often related to subsidiaries [32], M. Dedouchová points out that if it is a company with one business activity, the "corporate" and "business" strategies are identical. [2]

The business strategy is linked to **functional strategies**, which are developed for the individual specific areas, such as marketing, research and development, personnel, finance, and manufacturing. [21] [32]

G. Johnson and K. Scholes put the so-called **operational strategy** at the third level, which, according to them, deals with the question of "*how can the different elements of organization, such as resources, processes, people and their skills, work together to create a strategic architecture that effectively ensures the overall strategic direction.*" [19]

H. Horáková and H. Meffert look at the different types of strategies and they distinguish between **partial** and **integrated** approaches. Partial approaches deal only with certain part of strategic management, while integrated approaches aim at achieving a complex coverage of strategic decision-making and, when formulating the strategy, they take into consideration several factors. [28] Partial approach also represents the essence of integrated approaches. [15] Partial approaches may include the already described types of strategies designed by I. Ansoff, as well as three generic strategies that have been defined by M. E. Porter (the leading position in low cost, differentiation, focus on one segment of the scope of activities).

P. Kotler has introduced four types of competitive strategies, the main criterion of which is the size of the market share in the industry or field. We distinguish the following strategies: [24]

- **market leader** - has the largest market share in the given field, usually leads other organizations in the matters of price changes, new product launches, distribution networks and advertising expenditures,
- **market challengers** - the second largest organization in the field, trying to increase its market share,
- **market follower** - the second largest in the field, wants to keep the existing share without disrupting the status quo,
- **niche** - an organization that serves small segments other organizations overlook or ignore.

H. Horáková also presents the possibility of alternating leadership in costs and quality. She also adds that this approach is also known as the strategy of „**outpacing**“. [15]

The principles of proper objective setting

Entrepreneurial activity involves a constant process of business objectives defining. The priority is given to long-term – strategic objectives which determine the direction of the entire company, and also decide about the short-term and medium-term objectives. A precise definition of these objectives is very important for communication, understanding, and comprehension of all the people these objectives are affecting. These are the reasons why the principle of **SMART** should be followed when determining any partial objectives (i.e. excluding strategic objectives, which are general).

SMART is a set of rules that determine how objectives are to be expressed so that, at the end, it will be possible to assess whether they were achieved or not. These objectives should be:

- S - specific and concrete, which means that they should be precisely described. If we are able to answer the question of what the subject-matter and the problem are, then we have met this criterion of specificity.
- M - measurable, quantifiable, allowing us to accurately express, monitor and check the course and degree of fulfilment. Here, you can for example ask how we know that we were successful.
- A - assignable to all the people who are involved in any way.
- R - realistic and feasible, in terms of all the resources needed. Ask yourself a question, whether we can achieve this objective at all with the resources we have.
- T – time-related, specify the term when they must be achieved.

According to SMART principles, the already mentioned main objectives can be spread into the individual partial objectives. For example, the objectives from economic areas related to the increase of turnover can be extended to a partial objective of "increasing sales based on better delivery and payment terms, higher warranties and higher quality, and faster claim processing" or "increasing the efficiency of the functioning of company logistics system (transportation, handling, storage, packaging), thereby achieving cost reductions based on a rational solution".

Task to solve

Example

How do these principles work in practice?

Solution

Imagine that a company sets its priority strategic objective to "increase the market share and to improve the current market position of the company."

This strategic objective is quite general and should be subsequently specified, for example, into the following partial objective of "gaining 12 % market share of the Czech market of metallurgical material by 31st December 2014, through the inclusion of new products in existing product range."

- S - it is important to note that the continuous (partial) objective is much more specific and much more concrete than the strategic one. We have also established a specific procedure to achieve this share.
- M – the partial objective is measurable - at the end of the year, we can answer the question of whether thee given share was achieved or not, and if not, it is necessary to identify the main reason of failure.
- A – we assume that the objective is acceptable to all the people involved in its achievement in any way.
- R – we assume, mostly on the basis of a market research and budgeting, that the objective is achievable and realistic.
- T - because of the specified term, we can see that the objective specified in terms of time – is to be accomplished by 31st December 2014.

As we can see from this example, if the partial objectives are properly defined according to the SMART rules and their performance is also regularly checked, then we can say they are not only a motivation to higher performance, but they also greatly simplify and streamline the completion of the individual objectives of the strategic plan.

Role of company strategy

Company strategy can be understood in several levels. Grant defines the individual roles (task) of strategy: [7]

1. **Strategy as a support of decision-making**
2. **Strategy as a coordination tool**
3. **Strategy as a goal**

The first case reflects the possibility of integrating and gathering the opinions of several completely different persons (usually members of the top management) during the preparation of the strategy, which usually improves the quality of the final accepted strategy.

In the second case, the strategy works as a communication and coordination tool of the executives with other co-workers via the objectives of the organization, which are consistent with the given strategy. This means that if the workers identify themselves with the objectives and strategy of the organization and understand them, they achieve higher job security and they do a better job.

In the last case, Grant understands strategy as a tool primarily focused on competition with the competing entities, with regard to the future. Veber states that by formulating and implementing a suitable corporate strategy, one business entity is trying to gain a comparative advantage over its competitors. He also states that during the period of time when the markets witness a situation of supply exceeding demand, the concept of competitive advantage is becoming increasingly widespread. [37]

- **Strategic analysis**

Strategic analysis is an integral and very important part of the process of strategic management. Its quality processing requires creative strategic thinking. This will help you to make a strategic analysis that adequately prepares the company for unpredictable changes that may arise in its environment in the future.

The key objective of a strategic analysis, according to Sedláčková, is to: "*identify, analyze and evaluate all relevant factors that, as we can assume, will influence the final choice of the objectives and strategy of the company.*" [31]

It is, however, not enough to merely identify the individual factors in isolation, but we must see them as a system of interconnected factors that affect the company.

It is also necessary to estimate the potential development trends and to try to anticipate especially any eventual negative impacts on the company in the future, and to prepare for them. Anticipating the future plays a crucial role in strategic management, or in strategic analysis – as it is not enough to analyze the past only, it is vital to proactively look for new opportunities in an effort to overcome the competitors.

The traditional concept of strategic analysis (e.g. according to Sedláčková) aims at examining two types of factors that affect the company. These are external factors, which include the factors of the macro and micro environment of the company, and internal factors, which include specific advantages, available resources, and the strengths and weaknesses. These factors determine the so-called strategic position of the company in relation to its surroundings.

The strategic position of the company in relation to its surroundings is illustrated by the diagram in Figure 25.

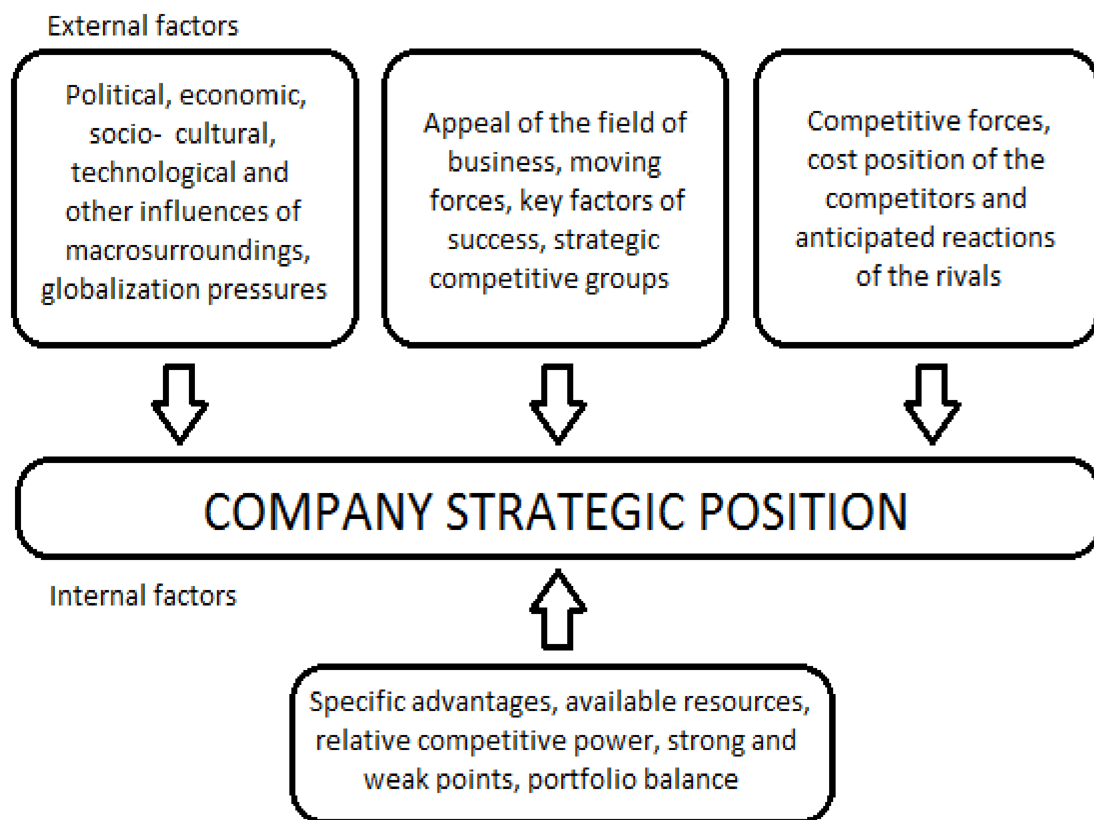

Figure 25: Strategic position of company [31, p. 10]

❖ Strategic management

Definition of the term

Strategic management in itself is not a science or a discipline. It is rather a point of view regarding the organization, the possibility of thinking about the mission of the organization. It combines conceptual and long-term management aimed at winning over the others. From the perspective of a company, it is focused on obtaining a comparative advantage. [5]

The understanding of strategic management has changed over time. While in the 1970s and 1980s, strategic management was essentially the same as strategic planning, later, there was a significant qualitative shift in thinking, where strategic planning and decision-making became only the individual parts of strategic management. [39]

Strategic management can be defined in many different ways. One of the most frequently used is the description of the process itself, i.e. what activities are included in strategic management. E.g., according to J. Veber, strategic management "*is a summary of activities that include the research of market conditions, the needs and requirements of customers, the identification of strengths and weaknesses, the specification of the social, political and legal conditions, and the determination of the availability of resources that can create opportunities or threats, while their purpose is to obtain information necessary for the formation of long-term objectives (goals) of the functioning of the organization.*" [37]

The second group of possible definitions of strategic management focuses more on what should be its aim, what should be achieved through strategic management. E.g., Z. Souček sees strategic management as "*the process of creation and implementation of development projects that*

are crucial for the development of the company, they aim is to create specific advantages, future potential, and to achieve global competitiveness." [33]

Another meaningful way of defining strategic management is a definition based on the contradictions. Strategic management is thus compared with operating management. [21], [2]

A vast majority of authors uses a combination of these options to define strategic management. E.g., Z. Souček also addresses the contradictions when he states that, while strategic management is focused on creating potential, the following operating management only exploits the already existing potential to ensure the operation, and partly also the development of the organization. [33]

Strategic management process

As noted by Z. Souček, there is no universal recipe for a successful strategy, or a successful strategic management. Yet, there is a certain sequence of steps that should be followed. [33]

E. Wiebes, M. Baaij, B. Keibek and P. Witteveen suggest a procedure consisting of four phases. The result of the first, preparation phase should be the formulation of concrete strategic questions, hypotheses, and the creation of a team that will intensively deal with the preparation of the strategy. [38] The second step should be an analysis, gathering all the necessary data. The next stage is a decision. It includes the definition of various scenarios, and the outcome is the formulation of a strategy.

The entire process is completed by the implementation phase.

In books, e.g. [32], [13], you can come across two basic concepts, **marketing-oriented**, which is shown in Figure 26, and the other one **focused on core competencies**, which is shown in Figure 27. Marketing-oriented approach was developed and promoted earlier form the 1960s, according to which the success of an organization is determined by the surrounding environment, rather than by the resources and competencies within the organization. According to this concept, the process of strategic management starts by familiarization with the external environment and by selecting an attractive field of business, i.e. a promising field of activity. The strategy is formulated on the basis of these factors, the resources and capabilities necessary for the implementation of the strategy are developed only afterwards.

1. Familiarization with the surrounding environment, especially the one related to the line of business.

2. Selection of the line of business with high potential of above-average sales revenues.

3. Preparation of a strategy matching the attractive line of business and capable of earning above-average sales revenues.

4. Creation and acquisition of all assets and skills necessary for the strategy implementation.

5. Utilization of strong points of the organization (created or acquired skills and assets) in order to implement the strategy.

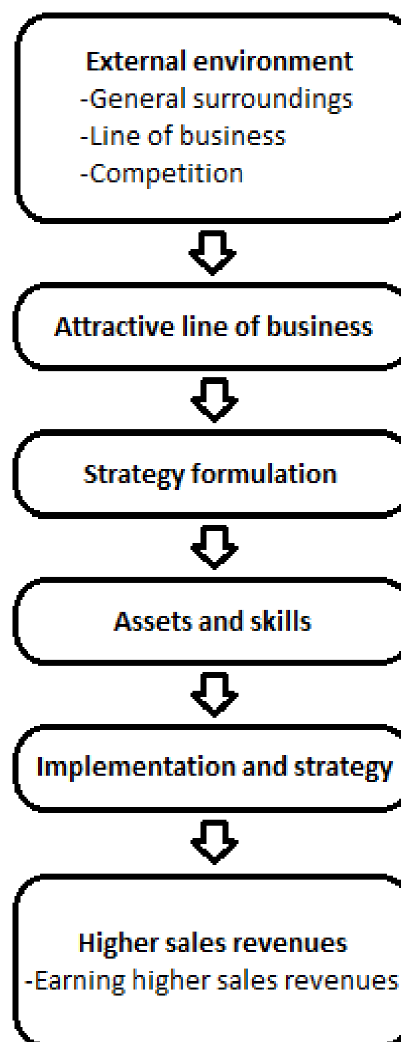

Figure 26: Marketing-oriented process of strategic management [13, s. 16]

On the other hand, the concept of key competencies is based on the assumption that long-term success of the organization can be built only on specific skills and knowledge within the organization. [32]

F. Šmída adds that it is not really possible to describe the future today. At the moment, we do not know exactly which way the market will go and how the preferences will evolve; it is more suitable to start the process of strategic management by identifying the potential of the organization. [34]

The beginning of the course of strategic management, i.e. the concept of the key competences, rests in the identification of the resources of the organization, as well as in the disclosure of all abilities and capabilities of the organization. A potential competitive advantage is searched for on the basis of these finding, and the attractive field of activity, the creation and implementation of the strategy follows only afterwards. [13]

1. Identification of the resources of the organization. Identification of its strong and weak points and their comparison with the competitors.

2. Determination of the abilities of the company. Which abilities distinguish the company from its competitors?

3. Determination of the potential of company resources and abilities with regards to the competitive advantage.

4. Selection of an attractive line of business with opportunities that will allow the organization to fully use its resources and abilities.

5. Selection of a strategy that will best allow the organization to use its resources and abilities compared to the opportunities in external environment.

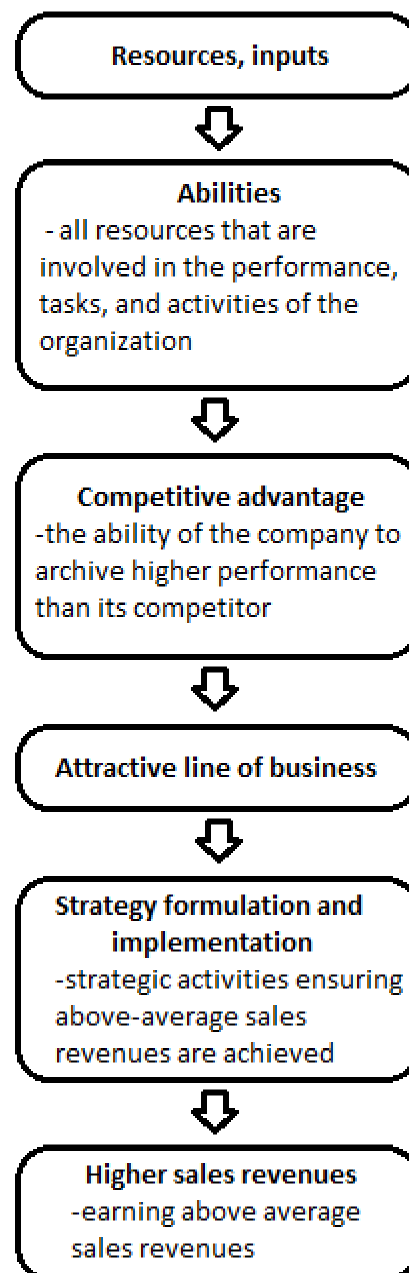

Figure 27: The process of strategic management based on key competences [13, p. 18]

Since about the 1990s, the dominant view regarding strategic management has been the one saying that it should be seen as a permanent cycle of strategic activities, see Figure 28. A diagram created by P. Košťa and O. Šuleř can be used as an example. From the "last" step, which is monitoring and evaluation, it is necessary to return to strategic analysis again, or to the formulation of the mission of the organization. [23]

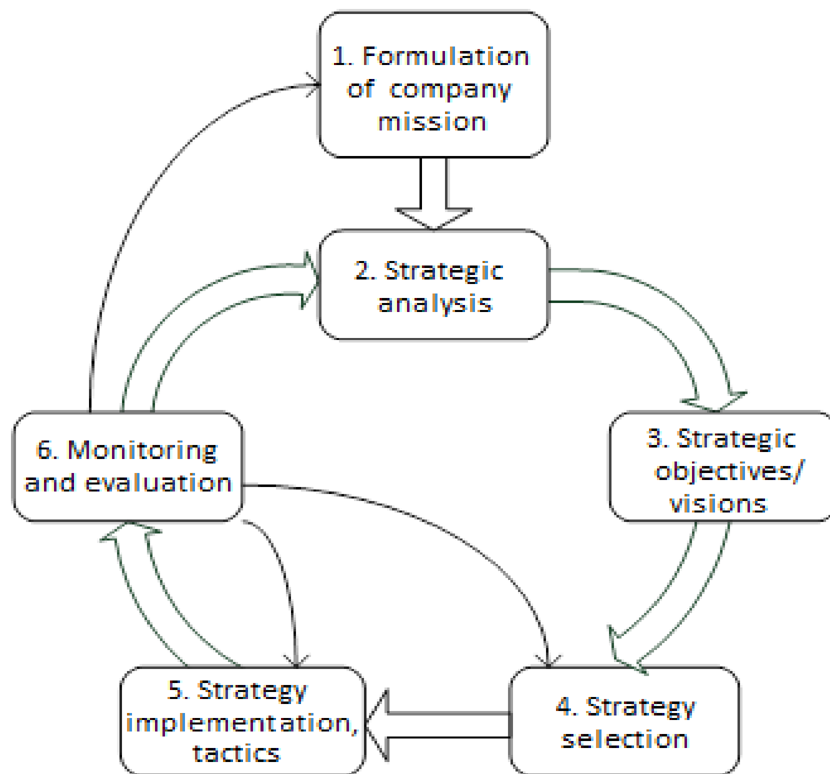

Figure 28: The process of strategic management as a continuous cycle [23, p. 19]

M. Keřkovský and O. Vykypěl present a different scheme, see Figure 29 which, however, also emphasizes the application of the principle of permanence within the frame of strategic management. [21]

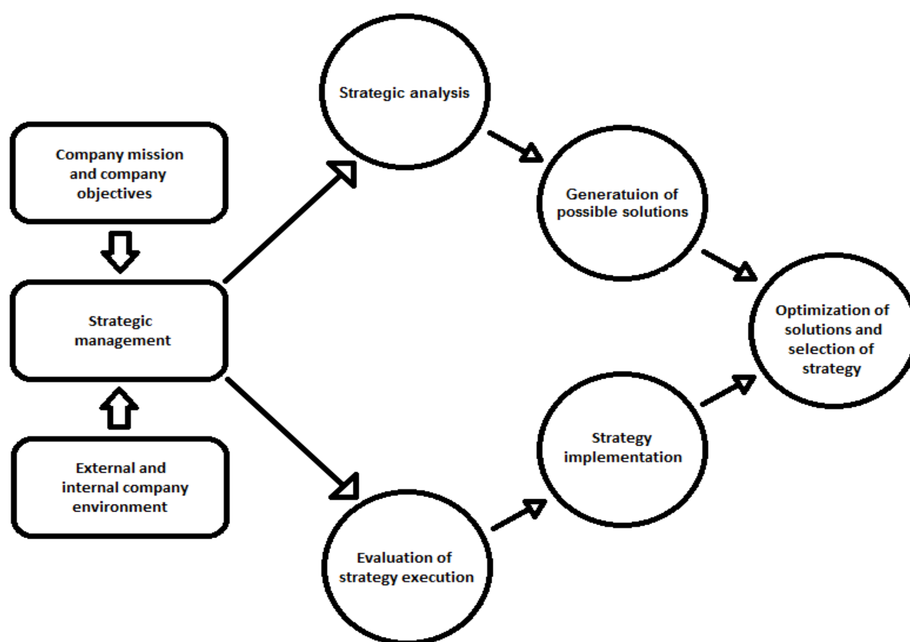

Figure 29: Continuous process of strategic management [21, p. 7]

G. Sander and E. Bauer also see **the process of strategic management as a cycle** and they distinguish four basic stages. [30]

1. At the beginning, there is initiation stage, during which the course of the entire process should be considered.
2. The following stage is a strategic analysis, both of the surrounding environment and the so-called internal analysis.
3. Then, there is the conceptual stage, which deals with the formulation of a specific strategy.
4. The final stage is the "execution", in which the adopted strategy is worked out into the individual functional strategies and it is communicated inside and outside the organization.

This stage is followed by the first, initiation stage again. In addition to these four basic stages, G. Sander and E. Bauer also present an "evaluation" stage, which is ongoing, and it should therefore be performed after the end of each of the four basic stages. [30]

❖ New trends in the development of strategic activities

Although no new more significant approaches or methods have been introduced in the context of the strategic activities in recent years, the interest in these activities continuous, and these approaches and methods are more and more often associated with innovative activities.

The latest theoretical and practical concepts of strategic activities are quite wide, and the issue of strategic activities is dealt with in very different ways. Their authors often focus their attention on the relations between strategic management, or the strategy adopted by the company and various aspects related to the organization and its surroundings. For example, V. Isoherranen and P. Kess analyse the dependencies between the strategy focus and the gained market share. They use the example of international organization Nokia to show that market share has increased thanks to the transition from technological and partially product orientation to customer orientation. [17]

Whether and how the adopted strategy affects the possibility of reducing taxes is the question D. M. Higgins, T. C. Omer and J. D. Phillips ask, and they divide organization according to the strategy they have adopted into "those looking for opportunities" ("prospector"), "defenders of position" ("defender") and "analyzer", and they state that organizations with a strategy focused on minimizing and reducing costs are less successful in avoiding paying taxes. [11]

M. A. Hitt, K. T. Haynes and R. Serpa look for an answer to the question of why does more than 50% of the decisions lead to the failure of organization. They emphasize the need for a flexible strategy. According to the authors, it is necessary for the organization to be proactive, to create effective human capital, but they also state that managers-strategists should be selfless and should respect ethics. [12]

R. S. Graber deals with the qualities of a manager-strategist, and he is looking for similarities between the strategy of playing chess and the strategy of the organization. He believes that playing chess can affect the performance of the player in the organization and his future careers, because it teaches him to think in a longer horizon, he learns from his mistakes, he learns to be patient, to accept certain level of risk, to be able to give something up, and to continuously formulate an ongoing plan. [6]

The diversity related to strategic activities also applies to countries in which various surveys focused just on the issue of strategic management, or trategy in the organization have been conducted. For example, S. Parthasarathy has applied Porter's model of five forces in India, while in Malaysia, it was investigated what strategy the most capable organizations focused on export have adopted. [29], [20]

Many authors deal with innovations in various ways. For example, K. Kyläheiko et al. see innovation as a development of new products, as one of the strategies leading to the growth of the organization. [26]

Table 8: Strategic management development stages [27, p. 26]

	Main idea	**Objective**	**Methods**
1960s **classical school**	Manager who makes decisions is the head	Creation of SWOT analysis	Creation of Ansoff matrix
1970s **process approach**	Interconnection of the individual departments and mutual cooperation	Product and geographic diversification	BCG matrix
1980s **evolution approach**	Evolution approach towards competition (markets think instead of managers)	Get closer to the customer; increase production quality	Models of quality management; Porter´s model of five forces
1990s **system approach**	Extension of strategic management by including personal approach	Increase production efficiency	Creation of internal company cultures
Present time **new approach**	Integration of the term of strategic management and strategy	Increase practical application of the theoretical concept	Strategic research

The classification of the development stages of strategic management is provided by T. Mallya. It is a chronological classification of the individual stages of development of strategic activities, and while the first four stages are always related to one decade, the last one – present time - covers more years. [27] T. Mallya himself summarizes all the stages of development in the above-presented clear table 3. [27]

Summary of the terms from the given chapter

- Management
- Managerial functions
- Strategic management
- Strategic analysis
- Mission

- SMART
- Strategic management development stages

Questions

1. Explain the terms management, control and strategy.
2. Which basic function does the mission of the company fulfil?
3. How can you explain the meaning of the word "strategic"?
4. Define the difference between the terms "strategic management" and "strategic control".
5. Describe strategic management from the perspective of a never-ending process, and try to draw the given scheme.
6. What is the practical impact of a well-functioning strategic management of a company?
7. Try to evaluate the new trends in the field of strategic activities of companies.

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