



**Project management (business
planning, funding, marketing,
performance)**

market analysis

Content

- Introduction to market analysis
- Elements of market analysis,
- Methods of market research,
- SWOT analysis,
- Porter's 5 Forces,
- PEST analysis.

Introduction

- The main aim of market analysis is to determinate the attractiveness of a market and to spot its opportunities and threats.
- The market analysis is usually a section in a business plan that provides the information about the market in which the business operates, about its segments and purchasing habits of customers and information about competitive organization.

Introduction - Elements of market analysis

The market analysis should be suitable for a particular kind of business/ project. It usually includes:

- Industry / branch description, including its current size, historic growth rate and trends.
- Customers segmentation and target market.
- Distinguishing characteristics – needs of the potential customers.
- Size of the market.

Introduction - Elements of market analysis

- Distribution channels existing on the market.
- Pricing and gross margin (pricing structure, gross margin levels, planned discount).
- Competitive analysis (market share, strengths and weaknesses, their target market, barriers and opportunities etc.)
- Regulatory restrictions.

Introduction - Methods of market analysis

Methods of market research can be divided into two main methodological groups:

- qualitative - usually in-depth exploration of what people think, feel or do and, crucially, why.
- quantitative - measure of how many people think, feel or behave in a certain way supported with some statistical analysis to determine the results.

The popular methods of market research are: surveys, focus groups, personal interviews, observation and field trials

SWOT analysis

- One of the most popular method of market or business analysis is SWOT (the acronym for strengths, weaknesses, opportunities and threats). It can be done for organization as well as for a project.
- SWOT analysis is very often made in a simple version. It is just only describe some examples of every basic elements and assessment them according to qualities criteria. It may be also supported some numbers (elements of quantities assessment).

SWOT analysis - example

SWOT analysis according to qualities criteria.

It was made for a new company (start-up). The company create innovative software to analysis cosmetics products according to information on the package. It is dedicated for mobile technologies and for individuals costumers, especially for allergic. The company plan introduce their products on the EU market.

SWOT analysis

- The second step is score definition. It takes under consideration the impact and probability.
- Ratings are made on a scale of 1 - 10, where 1 means little impact and probability (not more than 5%), while 10 indicates a high probability (above 90%) and a significant impact on the company / project etc.

SWOT analysis – example (basic version)

Strengths	Weaknesses
<ul style="list-style-type: none">• Low cost of software for individual customer;• Full application functionality and intuitive system;• Innovation product on the market;• Service is a response for the market needs.	<ul style="list-style-type: none">• Lack of the appropriate software on the market;• Lack of professional IT staff;• New branch (company non recognizable on the market).
Opportunities	Threats
<ul style="list-style-type: none">• Dynamic development of cosmetics market;• Large number of potential customers;• Lack of supplement products;• Innovation – market opportunity.	<ul style="list-style-type: none">• Introducing on the market new companies, that will offer a similar product;• Global crisis;• Development of mobile technology.

SWOT analysis

- The second step is score definition. It takes under consideration the impact and probability.
- Ratings are made on a scale of 1 - 10, where 1 means little impact and probability (not more than 5%), while 10 indicates a high probability (above 90%) and a significant impact on the company / project etc.

SWOT analysis

Strengths		Weaknesses	
• Low cost of software for individual costumer;	8	• Lack of professional IT staff;	5
• Full application functionality and intuitive system;	7	• New branch (company non recognizable on the market).	6
• Innovation product on the market;	8		
• Service is a response for the market needs.	8		
Opportunities		Threats	
• Dynamic development of cosmetics market;	6	• Introducing on the market new companies, that will offer a similar product;	4
• Large number of potential customers;	6	• Global crisis;	2
• Lack of supplement products;	7	• Development of mobile technology.	7
• Innovation – market opportunity.	4		

SWOT analysis - example

- Strengths: 31
- Weaknesses: 11
- Opportunities: 23
- Threats: 13

Determination of the probability of strategic success

- Strengths – Weaknesses = $31 - 11 = 20$
- Opportunities – Threats = $23 - 13 = 10$
- market attractiveness = $23\text{ O} / (23\text{ O} + 13\text{ T}) = 0,63$
- market position = $31\text{ S} / (31\text{ S} + 11\text{ W}) = 0,74$
- probability of strategic success = $(0,74 + 0,63) / 2 = 0,68$

SWOT analysis - example

- Results shown that the profitable market position of the company.
- It is an opportunity to develop the company. It is a high probability that an introduction the new product on the market will be successful.
- Strengths have an advantages on Weaknesses and there are only few Threats and a lot of Opportunities.

Excercise – SWOT analysis

- Think about exemplary project
- Define resources and background
- Do SWOT analysis according to qualities criteria.

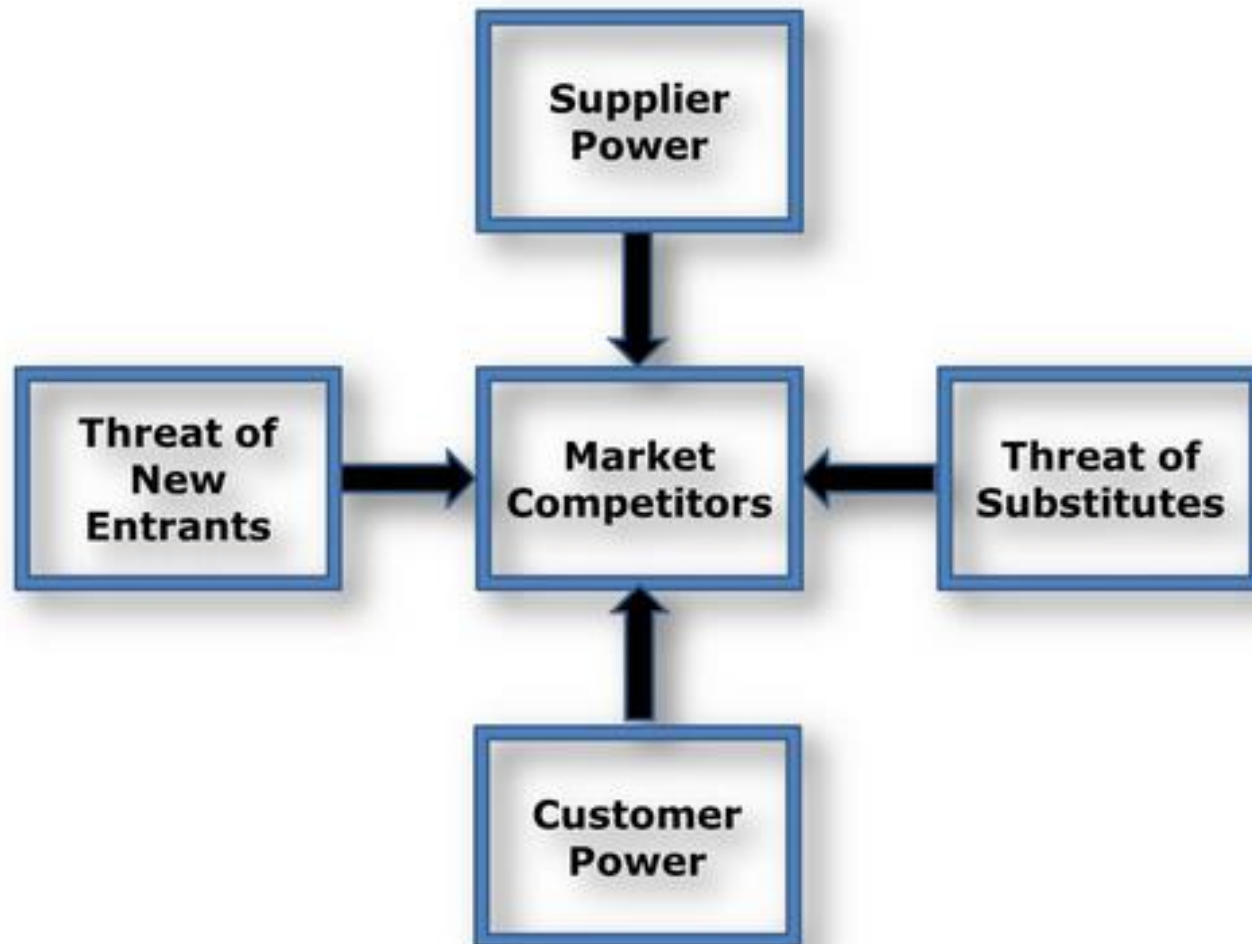
Porter's 5 Forces

- Porter's 5 Forces of Competitive Position Analysis were developed in 1979 by Michael E Porter of Harvard Business School as a simple framework for assessing and evaluating the competitive strength and position of companies.
- Forces determine the competitive intensity and attractiveness of a market.

Porter's 5 Forces

- This method determinates power lies in a business situation (business strategy development).
- It helps understand the strength of current competitive position of the business, and the strength of a position, that is considering moving into by business.
- The analysis include:
 - three forces from 'horizontal' competition: the threat of substitute, market competitors and the threat of new entrants;
 - two forces from 'vertical' competition: supplier power and customer (buyer) power.

Porter's 5 Forces



Porter's 5 Forces - 'horizontal' competition

the threat of substitute (products or services) - the likelihood of customers switching to alternatives in response to price increases; it is dependent on:

- switching costs;
- buyer propensity to substitute;
- perceived level of product differentiation;
- number of substitute products available in the market;
- ease of substitution;
- substandard product;
- quality depreciation;
- buyer inclination to substitute;
- price-performance trade-off of substitutes.

Porter's 5 Forces - 'horizontal' competition

market competitors (competitive rivalry) - the threat of established rivals; it is dependent on:

- number of competitors;
- exit barriers;
- quality differences;
- switching cost;
- customer loyalty;
- industry concentration;
- level of advertising expense;
- powerful competitive strategy;
- degree of transparency;
- sustainable competitive advantage through innovation;
- competition between online and offline companies.

Porter's 5 Forces - 'horizontal' competition

the threat of new entrants (barriers to new entry); durable barriers to entry; it is dependent on:

- time and cost of entry;
- specialist knowledge;
- technology protection for example patents;
- economies of scale;
- cost advantages;
- capital requirements or government policies;
- cost disadvantages independent of size;
- product differentiation;
- brand equity;
- switching costs;
- access to distribution;
- customer loyalty to established brands.

Porter's 5 Forces - ,vertical' competition

supplier power - the bargaining power of suppliers, how easy it is for suppliers to drive up prices; it is dependent on:

- number of suppliers;
- uniqueness of their product or service;
- size and strength of the supplier;
- cost of switching from one supplier to another;
- cost of changing;
- degree of differentiation of inputs;
- strength of distribution channel;
- employee solidarity (e.g. labour unions).

Porter's 5 Forces - ,vertical' competition

Customer (buyer) power - the bargaining power of customers, how easy it is for buyers to drive prices down. If a business has just a few powerful buyers, they may dictate terms. it is dependent on:

- number of buyers;
- importance of each individual buyer for business;
- differences between competitors;
- cost to the buyer of switching from one supplier to another; cost of changing;
- degree of dependency upon existing channels of distribution;
- buyer information availability;
- force down prices; buyer price sensitivity;
- availability of existing substitute products.

Excercise – Porter's 5 Forces

- Think about exemplary project
- Define resources and background
- Do Porter's 5 Forces analysis

PEST analysis

- PEST analysis describes a framework of macro-environmental factors used in the environmental scanning component of strategic management.
- The acronym for Political, Economic, Social and Technological analysis.

PEST analysis

Political Factors/ Environment to consider, for examples:

- Tax policy;
- Employment law;
- Environmental regulation;
- Trade restrictors;
- Political stability.

PEST analysis

Economic Factors/ Environment to consider, for examples:

- Economics growth;
- Interest rates;
- Exchange rates;
- Inflation rates.

PEST analysis

Socio-Cultural Factors/ Environment to consider, for examples:

- Health consciousness;
- Population growth rate;
- Age distribution;
- Career attitudes;
- Emphasis on safety.

PEST analysis

Technological Factors/ Environment to consider, for examples:

- R&D activity;
- Automation;
- Technology incentives;
- Rate of technological change

PEST analysis

There are a lot of version of PEST Analysis. It is dependent on a factors to consideration:

- PESTLIED: Political, Economic, Socio-Cultural, Technological, Legal, International, Environmental, Demographic.
- STEEPLE: Social/Demographic, Technological, Economic, Environmental, Political, Legal, Ethical.
- SLEPT: Socio-Cultural, Legal, Economic, Political, Technological.
- PESTLE/PESTEL: Political, Economic, Socio-Cultural, Technological, Legal, Environmental.
- LONGPESTLE: Local, National, and Global versions of PESTLE.

PEST analysis - exemplary

PEST analysis for a small polish company, that produce a orthopaedics devices. It was to introduce their products to other markets:

- Czech Republic
- Germany

Analysis is combine with two steps. The first step is evaluation factors for chosen country, and the second step is analysis of opportunities and threatens.

PEST analysis - exemplary

- The evaluation of each of factors was awarded points from 1-5. There was awarded every sub-factors, and there were summed average of the ratings, which is the result of a given country. The analysis includes the following sub-factors:
 - Political environment
 - Economic environment
 - Socio-Cultural Environment
 - Environment Technology

PEST analysis - exemplary

- Political environment, that is, laws and regulations relating to the business (licenses, labor law) and socio-economic ideology of the government, in particular the attitude of politicians to the industry, the stability of governments.
- Economic environment, which is the basic trends (GDP, inflation, unemployment), availability of credit, the level of disposable income for a household, the propensity to consume, rate of interest, taxes, foreign exchange rate, balance of trade and payments, wage levels, income distribution in the population balance the budget.

PEST analysis - exemplary

- Socio-Cultural Environment: values, lifestyle, religion, work ethic, the composition of the labor force, demographics, public perceptions of the industry.
- Environment Technology: scientific background, patents, technological development in the industry (for example the availability of efficient production lines), technological developments in related industries (substitutes).

PEST analysis - exemplary

	Czech Republic	Germany
Political Factors	4	5
Economic Factors	3	4
Socio-Cultural Factors	4	4
Technological Factors	5	5
TOTAL	4	4,5

PEST analysis - exemplary

Results should be interpreted on the basis of the average value:

- 4,5-5,0 - environment is very encouraging for new products or services;
- 3,9-4,4 - environment is encouraging for new products or services;
- 3,2-3,8 - environment is neutral for new products or services;
- 2,0-3,1 - environment is not encouraging for new products or services.

PEST analysis - exemplary

- Germany has an environment is very encouraging for new products, and Czech Republic there is also a possibility to invest - environment is encouraging for export development.
- Additionally, it was made an assessment for each category on the background of opportunities and threatens.

PEST analysis - exemplary

	Opportunities	Threatens
Political Factors	<ul style="list-style-type: none">• a stable government;• no additional tariffs for the production of goods;• supporting the development of industry relevant laws;• labor law more liberal than in Poland.	<ul style="list-style-type: none">• instability of the government, the possibility of political revolution;• changeable state policy to imported goods;• labor law avoiding flexible forms of employment.

PEST analysis - exemplary

	Opportunities	Threatens
Economic Factors	<ul style="list-style-type: none"> • availability of external sources of financing for business (for example loans, loan); • low taxes; • labor market profitable for employers; • high disposable income of households; • high propensity to consume society; • low level of wages; • stability of the budgetary situation in the country; • equal distribution of income in the population; • low exchange rate in domestic country in relation to the country where company export. 	<ul style="list-style-type: none"> • difficulty receiving external financial support; • high taxes; • labor market profitable for workers; • low propensity to consume society; • high level of wages; • Instability of the country budget; • not equal distribution of income in the population; • high exchange rate in domestic country in relation to the country where company export.

PEST analysis - exemplary

	Opportunities	Threatens
Socio-Cultural Factors	<ul style="list-style-type: none">• high standards of work ethics;• holidays and traditions, religious or national causing the use of the products of the industry;• young population;• positive public perceptions of the industry;• positive attitude of the society to the importing country.	<ul style="list-style-type: none">• no work ethic standards, or the presence of negative patterns of behavior;• negative public perceptions of the industry;• existing negative stereotypes about the society of the importing country.

PEST analysis - exemplary

	Opportunities	Threatens
Technological Factors	<ul style="list-style-type: none">• availability of modern production lines;• possibility of obtaining patent protection and easy protection of designs and trademarks;• lack of substitutes in the industry.	<ul style="list-style-type: none">• lack of availability of new technologies• difficult to protect IPR• wide availability of cheaper substitutes.

Excercise – PEST analysis

- Please do PEST analysis for this company for Russia market

Contacts.

Janusz Mikula

Institute of Material Science

CUT | Faculty of mechanical
engineering

Jana Pawła II 37 street

Tel. + 48 (0) 628 34 13

mob. + 48 (0) 502 315 758

Email: jamikula@pk.edu.pl

Kinga Korniejenko

Institute of Material Science

CUT | Faculty of mechanical
engineering

Jana Pawła II 37 street

Tel. + 48 (0) 12 628 38 21

mob. + 48 (0) 609 97 49 88

Email: kinga@mech.pk.edu.pl