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Market analysis (Part 1)

www.quizbrary.com **prefix nja code:**

What is a Market Analysis?

General:

”A **market analysis** is a thorough assessment of a market within a specific industry. You will study the dynamics of your market, such as volume and value, potential **customer segments**, buying patterns, competition, and other important factors.”

Business news daily

Customer segments are individual groups of customers that share common characteristics.

Property valuation:

A market analysis: “A process for examining the **demand** for and **supply** (market fundamentals) of a property type and the geographic market area for that property type.”

The Dictionary of Real Estate Appraisal, 5th Edition

Appraisal = Valuation; Appraiser = Valuer

Why is a Market Analysis so Important? :

- It identifies the **Highest and Best Use** (Optymalny Sposób Użytkowania) of a property:

“the reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, financially feasible and that results in the highest value”.

Valuers typically apply four tests to determine the highest and best use:

1. Physically possible = the determination which uses are physically possible on the property. This step considers only physical potential of the property.

2.Legally permissible = contemplation of restrictive covenants, building codes and regulations, easements, height limits and the like, as well as whether the current use is a legal nonconforming use or not.

A **nonconforming use** is a use of property that was allowed under the zoning regulations at the time the use was established but which, because of subsequent changes in those regulations, is no longer a permitted use.

3. Financially feasible = For uses that are "reasonably probable," because they're both **physically possible** and **legally permissible**, the valuer performs various financial analyses and calculations to determine their **financial feasibility (=** wykonalność finansowa) /ˌfiː.zəˈbɪl.ə.ti/ https://dictionary.cambridge.org/pronunciation/english/feasibility

An analysis /əˈnæləsɪs/ https://www.macmillandictionary.com/pronunciation/british/analysis
Analyses /əˈnæləsiːz/ https://forvo.com/word/analyses/

The work might include market analysis, **cash flow** estimates (szacunki przepływu środków pieniężnych) and **net operating income** projections (projekcje dochodu operacyjnego netto).

A potential use generally is considered financially feasible if its **net present value** (NPV) is greater than zero.

The **net present value** (**NPV**) (wartość bieżąca/zaktualizowana netto) applies to a series of cash flows occurring at different times. The present value of a cash flow depends on the interval of time between now and the cash flow. It also depends on the **discount rate**.

The **discount rate** (stopa dyskontowa/procentowa) is the interest rate used to calculate the present value of future cash flows from a project or investment.

NPV accounts for the **time value of money.** (wartość pieniądza w czasie)
Only uses that satisfy the first three tests are then subjected to the final test.

4. Maximally productive = Finally, the valuer ranks the remaining uses according to value or **rate of return (**stopa zwrotu**)**, adjusting for associated risks.

Rate of return (RoR) = is the net gain or loss of an investment over a specified time period, expressed as a percentage of the investment's initial cost.

This means that the use with the highest **internal rate of return** (IRR) might not come out on top if the use is excessively risky.

The internal rate of return (IRR) (wewnętrzna stopa zwrotu) is the annual rate of growth that an investment is expected to generate.

The use with the highest risk-adjusted IRR and NPV is the maximally productive use and, ultimately, the highest and best use of the property.

Why is a Market Analysis so Important?:

– Provides supporting data for a selection of **comparables** (**comps**), calculating **adjustments**, and **forecasting** income – the data collected will form the grounds for further valuation

- ***Comparables*** *or* ***comps*** mean properties that possess similar qualities, such as e.g**. size, age,** and **location**. Factors also include **market conditions**, such as changes in **price over time**, as well as **conditions of sale**, such as whether the property was sold as a **distress sale/forced sale** (sprzedaż wymuszona) or an **estate settlement** (postępowanie spadkowe), or any other factor that could affect its value.

Polish comps

The act on real estate management [7] defines the term **similar property** in the following way:

Similar property *is a property comparable to the one being the subject of the valuation procedure in terms of location, legal status, purpose, usage and other factors influencing its value.*

According to Common National Valuation Standards the valuation procedure should take into consideration only properties,

"*...which were the subject of the sales transaction on the date preceding the valuation date but no earlier than two years before the valuation date. Application of prices from other periods requires detailed justification".*

Individual task www.quizbrary.com Lesson 6, task 1

The depth of the analysis

- Depending on the **property type**, **market**, and **type of assignment**, there are different **depths/levels** of the analysis that must be consistent with the intended use.
- The various depths of the analysis range from the general to the complex ones, with the two extremes of this continuum identified as an **inferred analysis (infer – wnioskować)**, also called a **trend analysis**, and a **fundamental analysis** from a macro to micro perspective.

Inferred Analysis/Trend analysis - is based on **general historical trends** which the valuer uses to **derive general inferences** and **to make general projections** about the future. The inferred analysis principally is performed using the studies and surveys of others (**secondary information/data sources**).

infer /inˈfər / wywnioskować, **inferred** (wywnioskowany), **inference** (wniosek)

Fundamental Analysis (Analiza fundamentalna) - is explicitly **quantified** in detail to derive a specific conclusion about the present and/or an educated forecast about the future. The fundamental analysis primarily relies upon one's own, problem-specific, data searches and surveys (**primary information/data** sources).

Quantifiable data (wymierne dane)- information that can be quantified and can be verified objectively by agreed measurement scales

Levels of Market Analysis
breakout room group task – translating the table below circa 5 minutes

Inferred analysis/trend analysis	**Fundamental/derived analysis**
Emphasis on: **1. Instinctive knowledge** **2. Historical data** **3. Judgement**	Emphasis on: 1. Quantifiable data 2. Forecast 3. Judgement
A level B level	C level D level
– **Inferred subject attributes/features** – **Inferred location determinants of use and marketability (zbywalność) by macro analysis** – **Inferred demand from general economic base analysis conducted by others** – **Inferred demand from selected comps** – **Inferred equilibrium (równowaga rynkowa) and highest and best use and capture conclusions**	– Quantified subject attributes/features – Quantified and graphic analysis of location determinants of use and marketability by macro and micro analysis – Inferred demand derived by original economic base analysis – Forecast demand by subject-specific market segment and demographic data – Quantified supply derived by inventorying existing and forecasting planned competition – Quantified equilibrium: 🕐 Highest and the best use-graphic-map 🕐 Timing-quantified capture forecast

COMPOUND ADJECTIVES

- original economic base analysis
- subject-specific market segment

Sgt Pepper's Lonely Hearts Club Band

1.The last noun is the key one!

2. Read backwards!

3. Nouns used as adjectives should be used in singular!

The tax you pay on your income = the income tax

A doctor from London = a London doctor

A desk in the reception of the hotel = a hotel reception desk

A table that you need for a game of table tennis (= tennis played on the table) = a table tennis table

The championships in swimming for all the world = the world swimming championships

Individual task, www.quizbrary.com Lesson 6, task 2, compound nouns

Market Analysis Process

A market analysis is a “systematic” six step process that consists of:

STEP 1 **Property Productivity Analysis**

STEP 2 **Market Delineation** (wyznaczenie) /dɪˌlɪnɪ'eɪʃn/
https://en.bab.la/dictionary/english-polish/delineation

STEP 3 **Demand Analysis**

STEP 4 **Supply Analysis**

STEP 5 **Market Condition Analysis**

STEP 6 **Subject Marketability Analysis**

STEP 1 - Property Productivity Analysis

Property Productivity Analysis (Determine/define the Product) - The goal of the productivity analysis is to evaluate and analyse how we can use the land productively (the highest and best use). The **attributes/features** of a property are examined to determine marketability (zbywalność) in terms of specific services it provides and the specific needs in the market it satisfies.

Theoretically, ***attributes*** *and* ***characteristics*** *are not the same thing.* ***Attributes tend to be more specific, while characteristics are broader.***

Characteristics	**Attributes**
Legal/regulatory	building height, roof slope angle
Physical	Bosch dishwasher,
Locational	main road distance, sea view schools, parks, any amenities that appeal to market participants

STEP 2 – MARKET DELINEATION

Market Delineation (wyznaczenie granic rynku**)** - the process of identifying the geographic area where a majority of competition is located and from which a majority of demand is drawn = defining the users of the property and identifying the **boundaries** of the potential users/demand of the subject property. Market area **boundaries** are typically the perimeter(granica) /pə'rımıtə(r)/ of a geographic area within which:

1. Similar dwelling-unit styles are present.
2. The age, size, and general condition of dwelling units are similar.
3. A generally similar price range for housing exists
4. The incomes of the resident households are somewhat similar.
5. Land uses are harmonious.

A **market area** is a portion of a larger community or an entire community in which there is a homogeneous (jednorodny) /ˌhɒmə'dʒiːnɪəs/ • /ˌhɒməʊ-/ grouping of inhabitants, buildings, or business enterprises

PMA- Primary Market Area People who already live within the area and have the means and needs to buy the product. Customer base with consisting of few humans, but with **high penetration**.

SMA - Secondary Market Area Located outside of the primary market. Larger amount of people, **semi high penetration.**

EMA - Extended Market Area Everything outside of the secondary market. Huge amount of people, but very **low penetration**.

Market penetration (penetracja rynku) is a measure of how much a product or service is being used by customers compared to the total estimated market for that product or service.

STEP 3 – DEMAND ANALYSIS

Demand Analysis = we have to measure the demand/forecast demand factors which reflect current or ongoing market appetite for a specific property.

- Demand refers to the willingness and ability of a consumer to buy goods and services at different price levels during a period of time.

- The demand for real property is determined by many factors, such as:

the interest rate (stopa procentowa) , economy level, price, rental price (cena najmu), income or wealth, expectations, availability of loanable fund (dostępność pożyczek), size of the market, and net migration patterns/rates (poziom/współczynnik migracji).

The net migration rate is **the difference between the number of immigrants (people moving into the area) and the number of emigrants (people leaving an area) divided by the population**

Individual task, www. Quizbrary.com Lesson 6, Task 3 listening

STEP 4 – SUPPLY ANALYSIS

Supply Analysis = Measure Competition! - the study of current or future competitive supply of space in a particular market.

The valuer identifies and segments competitors answering the following questions:

- Who are the direct and indirect competitors?
- What are their strengths and weaknesses?
- How do they position themselves in the market?
- How do they affect performance and profitability?

The valuer relies on historical data and observation to forecast supply. *(Some secondary data sources may be used in this step to suggest or confirm trends.)*

STEP 5 – MARKET CONDITION ANALYSIS

Market Condition Analysis = it is the study of how buyers and sellers interact to determine transaction prices and quantities.

The valuer analyses the interaction of supply and demand in the **residual demand study** *(badanie popytu rezydualnego*)

Residual demand study analyses market demand to determine if the market is **oversupplied, in balance,** or **undersupplied**.

E.g. In residential valuation, inferred methods are typically used to analyse the interaction of supply and demand by noting whether the market area is **a buyers'** or **sellers' market**.

STEP 6 – MARKETABILITY ANALYSIS

analiza zbywalności

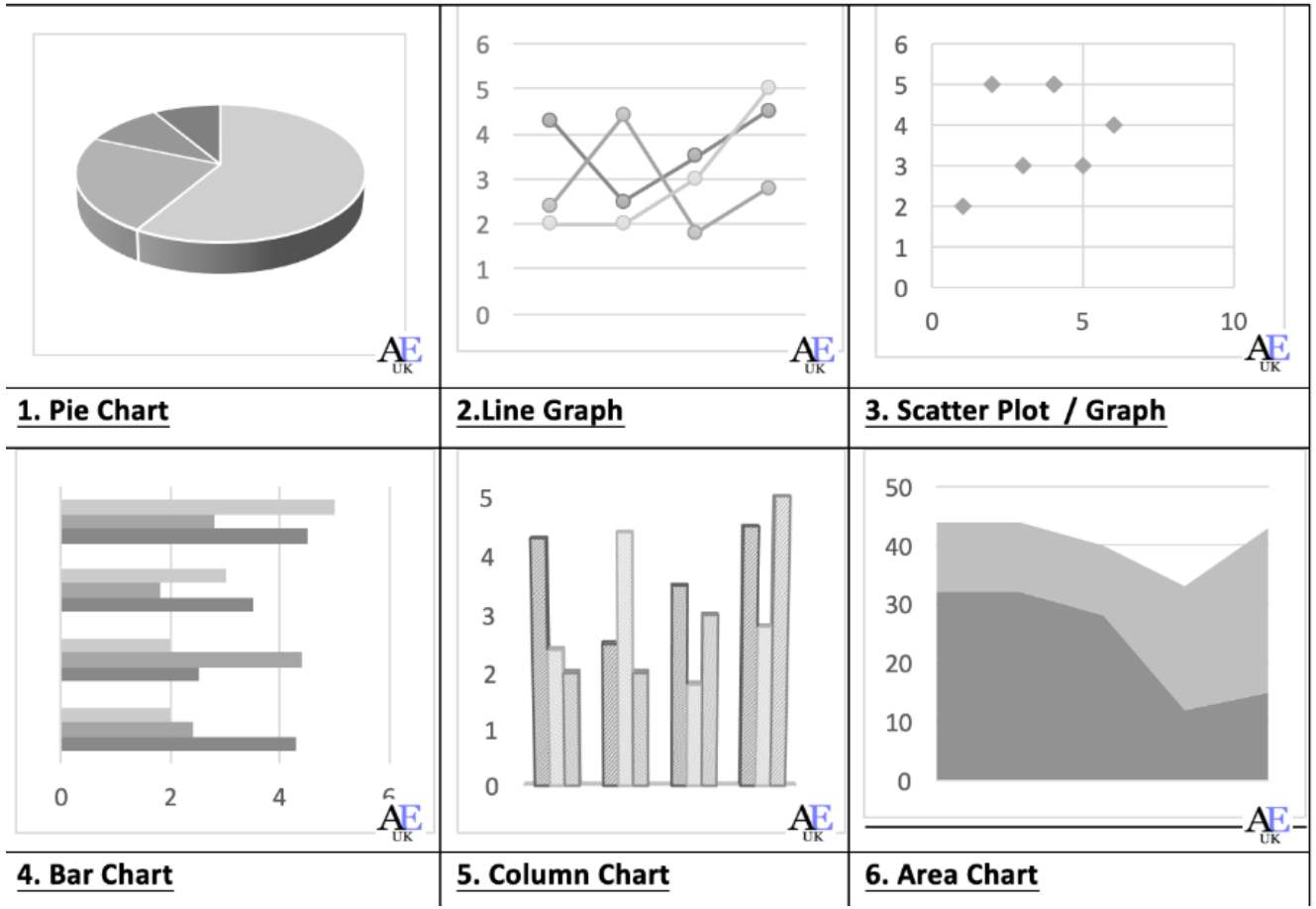
Subject Marketability Analysis - A *Marketability Study* focuses on how a particular property will be absorbed, sold, or leased under current or anticipated market conditions. It focuses on a ***specific property*** and how it **competes within a specific market**.

The valuer wants to determine the property **market capture (**przechwytywanie**) -** The capture represents the amount (typically a percentage) of total demand that a property can be expected to attract currently and into the future.

- Short-term capture is referred to as **absorption.**
- Long-term capture is referred to as **market share**. (udział w rynku)

Individual task: www.quizbrary.com Lesson 6, Task 4
vocabulary 6 steps of market analysis

DESCRIBING GRAPHS



USEFUL VOCABULARY

1.Introducing the chart:

- (**Graph**) These lines represent… (**Bar**) These columns are… (**Pie**) These segments are… (**Table**) These rows/columns are…
- The graph presents data on …/illustrates/shows a trend/continuous change
- The bar chart below/above represents the total sum of sales for *Product A* and *Product B* over *three* years.
- This pie chart illustrates numerical proportion.
- This pie chart shows the relation between categorical variables (zmienne jakościowe) and numerical variables (zmienne ilościowe).
- The pie chart below represents the proportion of …….. and …..

2. Describing the changes

- **UP**: increase/double/multiply/exceed — a rise in
- **DOWN**: decrease/drop/decline/plunge — a fall in
- **UP & DOWN**: fluctuate
- **SAME**: stable/remain constant
- **CHANGES**: gradually/ a little/ suddenly/sharply
- **TOP** reach a peak/its highest level
- **BOTTOM**: sink to/reach the lowest level
- **SHIFT**: A leftward shift of ...../ It shifts leftward
- **CROSS**: The lines/curves cross/intersect/meet

The y axis (vertical) is… and the x axis (horizontal) is…

axis /ˈæk.sɪs/ https://dictionary.cambridge.org/pronunciation/english/axis

Plural axes /ˈæk.siːz/ https://dictionary.cambridge.org/pronunciation/english/axes

Or very rarely axiis

A y axis
An x axis

Lines/curves may have a positive slope (dodatnie nachylenie) or a negative slope (ujemne nachylenie)

Time is **distributed on the horizontal axis**.

The x- axis of the bar chart presents the categories being compared.
The y- axis shows a measured value.

3. Concluding

- Overall, Generally, there is / has been/was
- A key significant area is … / Two key significant areas are…
- An important point is… / Two important points I'd like to illustrate are…
- This seems to suggest that…
- This is (clearly) due to…
- The evaluation of this data suggests / provides evidence for / highlights…
- A future prediction is that……

Breakout rooms: describe the graph

Did you know?

The findings of more than three decades of research confirm that bilinguals who learned a second language in late childhood or adulthood favour their first language for mental computations. They are also faster at remembering numbers and solving mathematical problems in that lnguage.

Scatter plot – wykres punktowy

The scatter plot is an X-Y diagram that shows a relationship between two variables (zmienne) /ˈveəriəb(ə)l/ https://www.macmillandictionary.com/pronunciation/british/variable_1

It is used to plot data points (wykreślania punktów danych) on a vertical (**a** y-axis) and a horizontal axis (**an** x-axis). The purpose is to show how much one variable affects another.

- The first variable is called **independent (**zmienna niezależna/objaśniająca**)**. The other variable is called **dependent** (zmienna zależna/objaśniana) because its values depend on the first variable.
- Scatter plots also help you predict the behaviour of one variable (dependent) based on the measure of the other variable (independent).
- the **dependent variable** is also known as a **response variable**
- The independent variable is also known as an explanatory or predictor variable.

- The "**line of best fit**" (najlepiej dopasowana linia) or a "**trend line**" (linia trendu) is used to help us make predictions that are based on past data.

The Scatter plots are a great tool for visualizing **linear regression models** (model regresji liniowej)

Regression analysis is defined as a method that examines the relationship between one or more independent variables and a dependent variable by plotting points on a graph and through statistical analysis; used to identify and weight analytical factors and to make forecasts. (Dictionary of Real Estate Appraisal,4th Edition)

Regression analysis is one of the tools or methods that real estate appraisers use in or to **determine value adjustments**

The most common method for fitting a regression line is the **method of least-squares** – najpowszechniejszą metodą do wyznaczenia linii regresji najlepiej dopasowanej do danych jest **metoda najmniejszych kwadratów**.

Simple linear regression means there is only one independent variable X which changes result on different values for Y. Its formula is:

$$\mathbf{Y = B_0 + B_1X}$$

where:

X – the value of the independent variable,
Y – the value of the dependent variable.
$\mathbf{B_0}$ – is a constant (shows the value of Y when the value of X=0) – wyraz wolny
$\mathbf{B_1}$ – the regression coefficient (shows how much Y changes for each unit change in X)/slope of the line – współczynnik regresji

These relationships between variables are expressed mathematically in terms of a **correlation coefficient** (known also as a correlation).

A **positive correlation** means that if the independent variable gets bigger, the dependent variable tends to get bigger. The larger the absolute value of a the correlation coefficient, the stronger the linear relationship.

A **negative correlation** between two variables indicates that one variable increases while the other decreases, and vice-versa.

- **To ensure that the regression results are correct, check your residual plots !**

The **residual plot** (wykresy reszt) is a graph that represents the residuals on the vertical axis and the independent variable on the horizontal axis. If the points are randomly dispersed around the horizontal axis, linear regression regresja liniowa models are appropriate for the data. If not, non-linear models are more appropriate.

- Wykresy punktowe: korelacja – YouTube
- Individual task www.quizbrary.com Lesson 6, Task 5