Topics

- Latest trends (ETC)
- Measuring and benchmarking seasonality
- Comparing the guest mix of destinations
- Market volume and growth analysis (‚Portfolio A.‘)
- Shopping barometer (ECM)
- Visitors to attractions and sites
- Webanalytics
- Outlook (possible developments for the next years)
- Summary and feedback

Latest Trends (ETC)

Measuring and comparing seasonality in European destinations

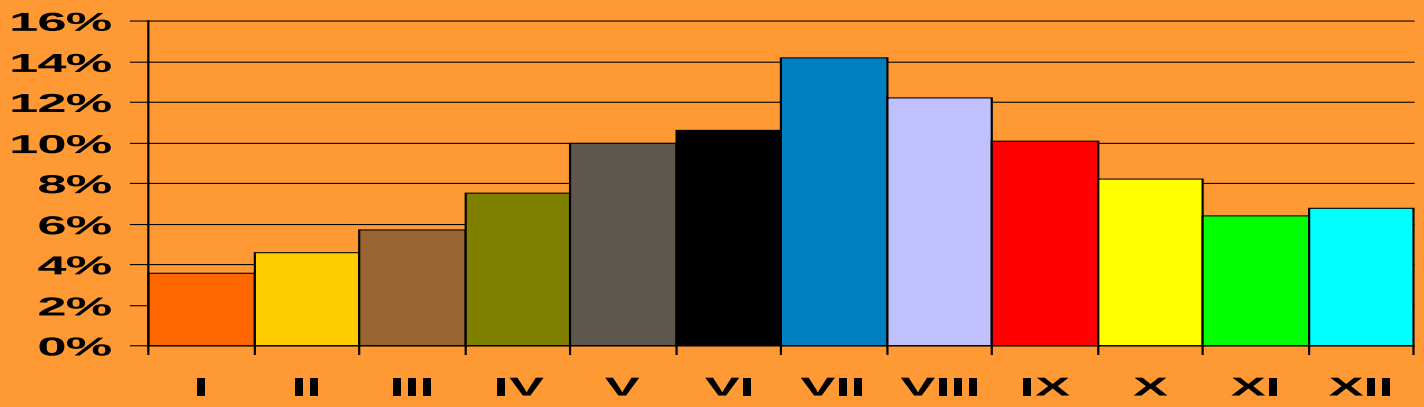
Causes of seasonality in tourism

- **Seasonality: The systematic intra-year variation in visitation caused by exogenous factors:**
  - Natural (e.g. climate)
  - Institutional
    - caused by the markets of origin (e.g. timing of school holidays)
    - caused by the destination (e.g. regular mega-events)
  - Calendar effects (e.g. Easter)
- **Problems:**
  - The need to optimize the use of tourism infrastructure such as roads to accommodate high flows during certain periods
  - Seasonality increases the risk of high unemployment during the low seasons
  - In dryer regions the issue of water scarcity is of particular concern

Actions to overcome seasonality

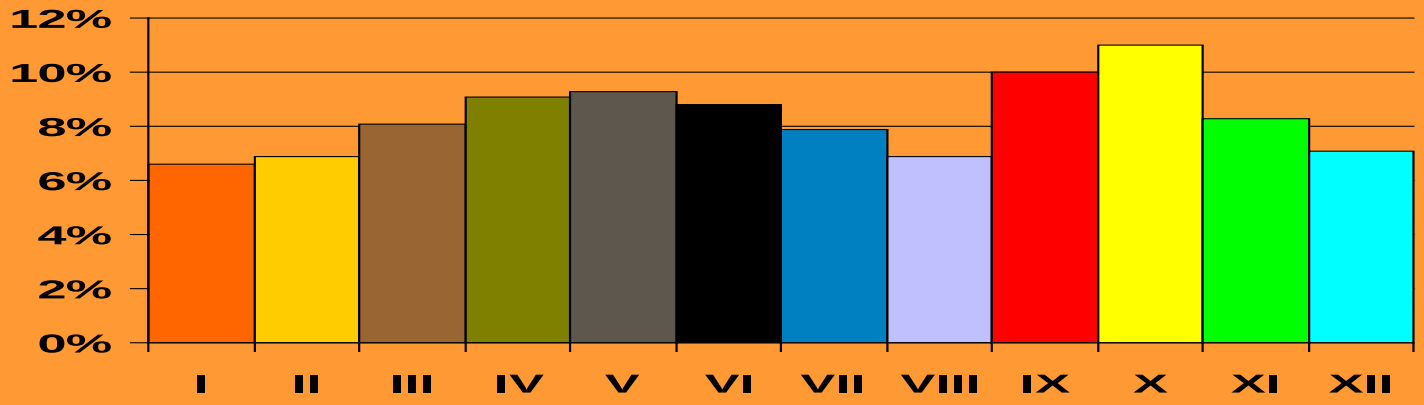
- **Product**
  - Development of new offers, events, packages, …
- **Pricing**
  - Providing discounts for periods with less demand
- **Promotion**
  - When and how intensively we will promote the tourism products
- **Placement**
  - Which geographic region/market should be promoted
  - Which segments (e.g. young adults, families, business people)

Gini coefficient



LÜBECK

Gini=0.207

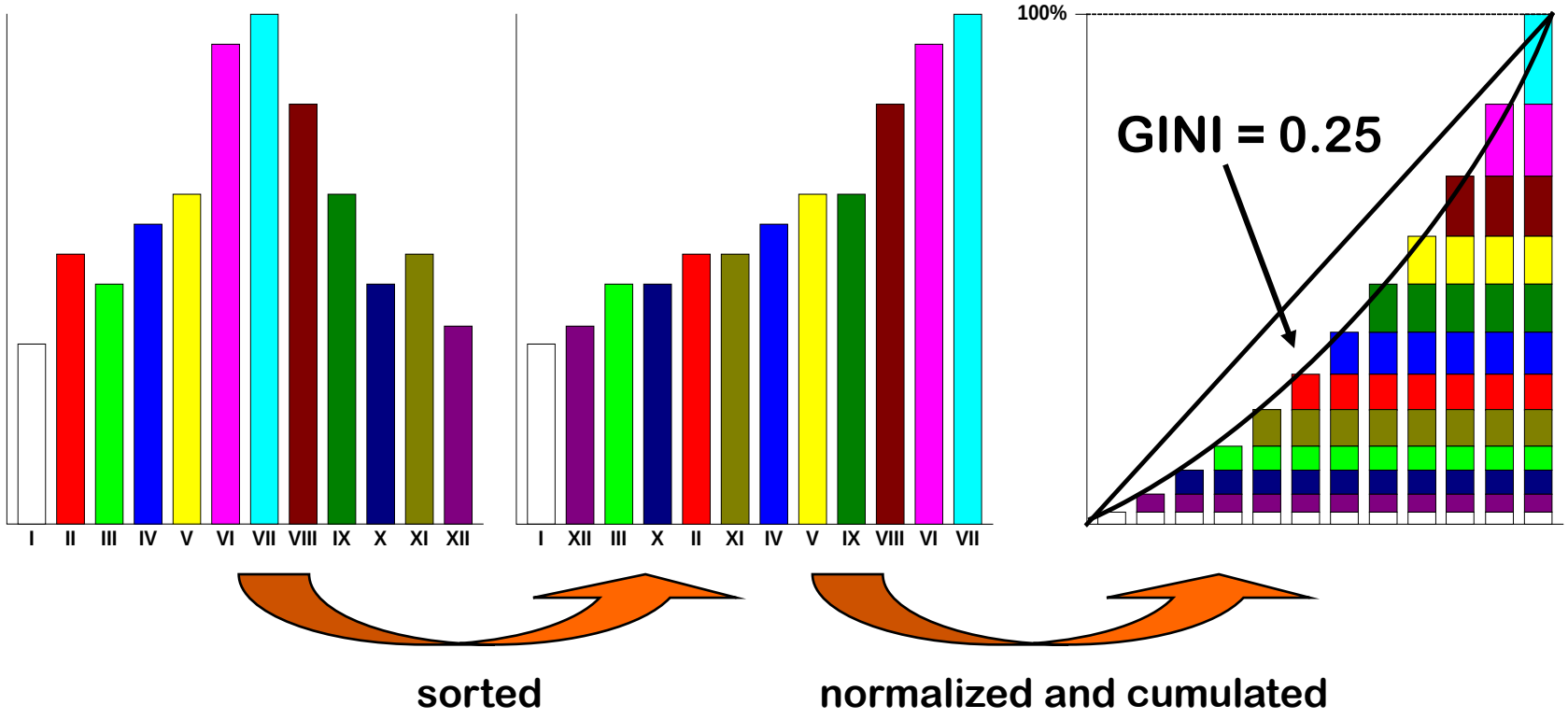


MADRID

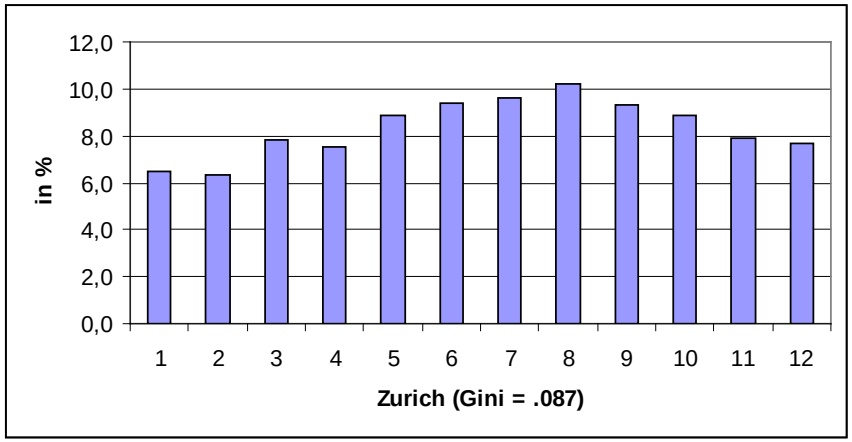
Gini=0.088

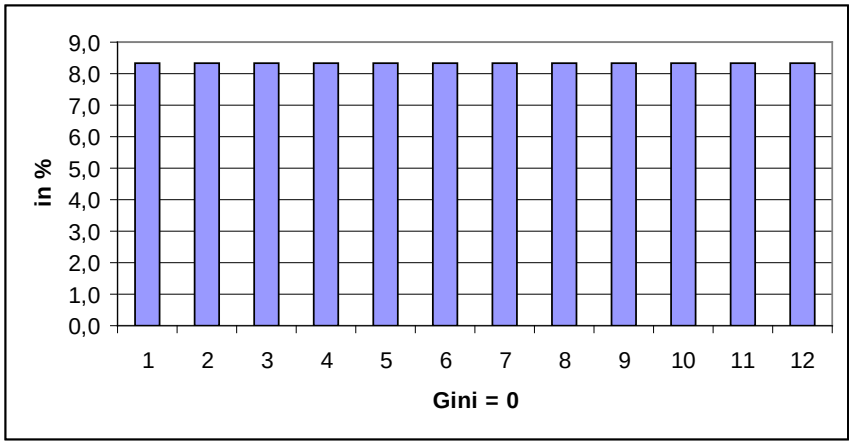
The Gini coefficient

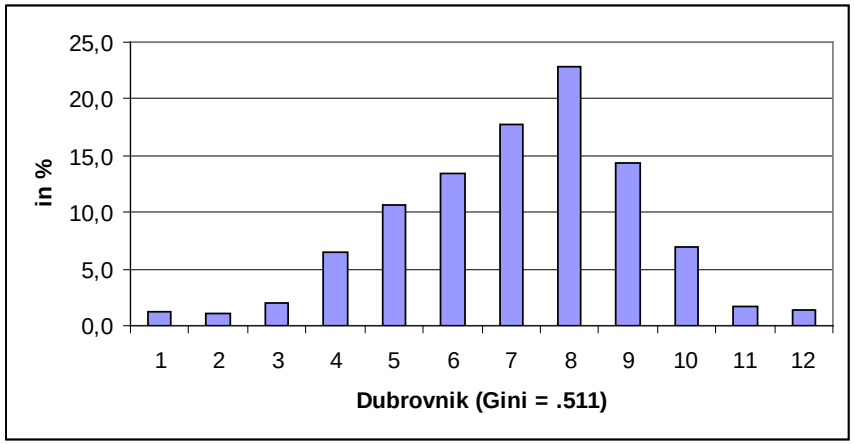
Measure of statistical dispersion. The Gini can be approximated with trapezoids: $G^* = 1 - \sum_{i=1}^{12} (X_i - X_{i-1}) \times (Y_i + Y_{i-1})$

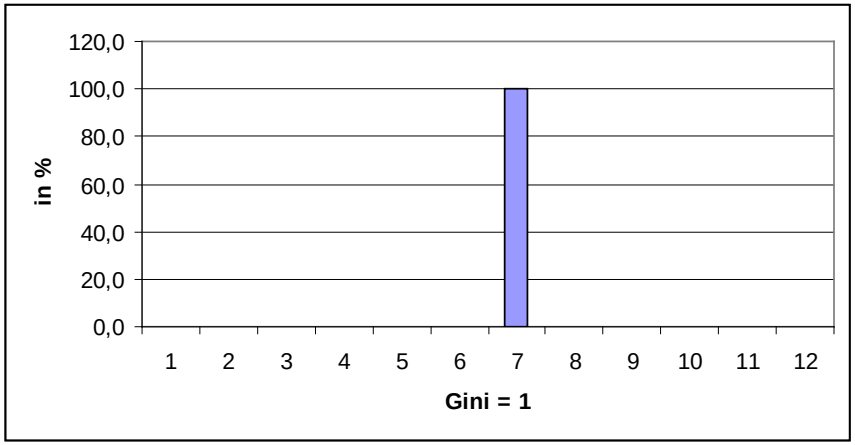


Measuring seasonality (Gini coefficient)

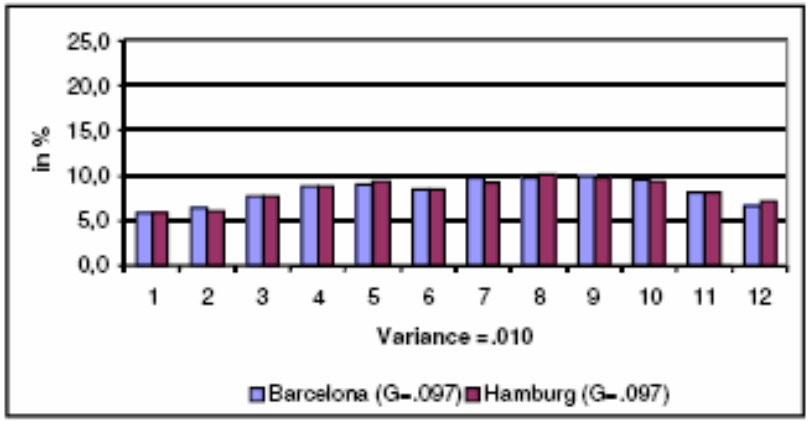






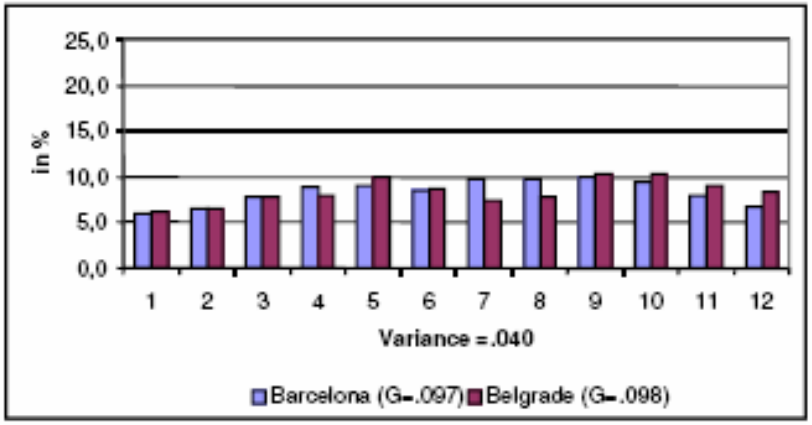


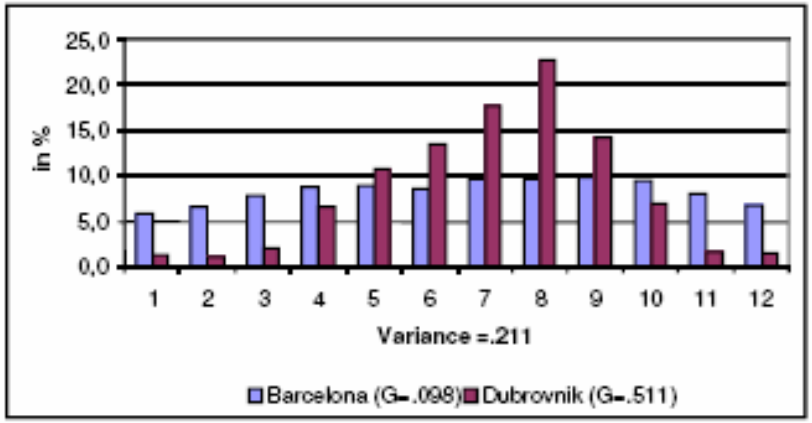
Similarity of seasonal patterns



$$d = \sqrt{\sum_{i=1}^{12} (x_i - y_i)^2}$$

Similarity of seasonal patterns of two destinations. Multiple destinations?

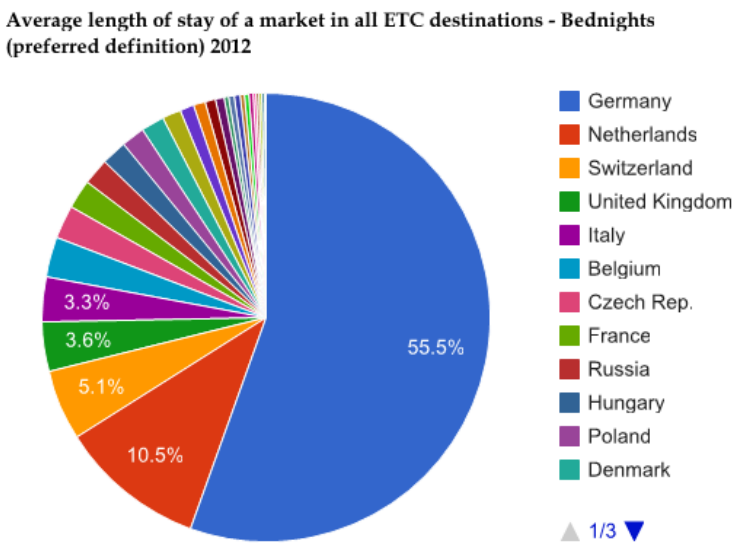




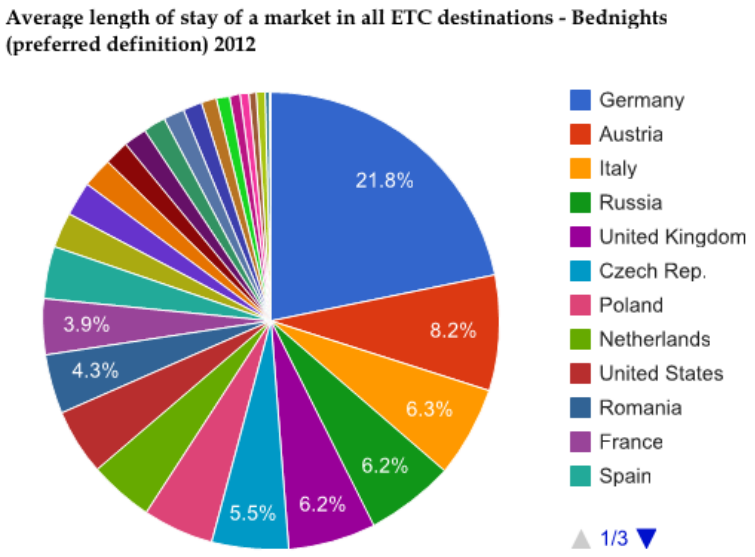
Comparing the guest mix of destinations

Diversity of guest mix

Assumption: A high diversity of guest mix spreads the risk of negative economic developments in single markets



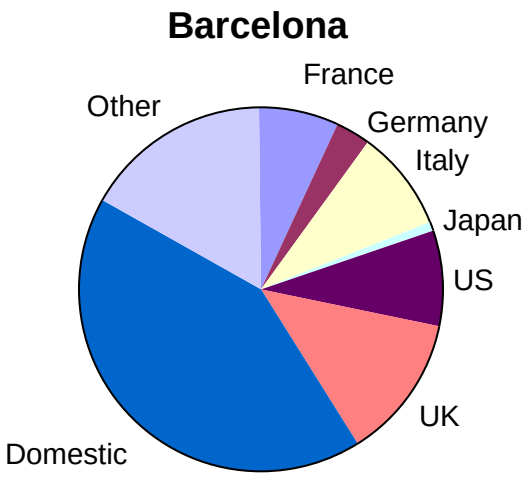
Austria (Gini = 0.792)



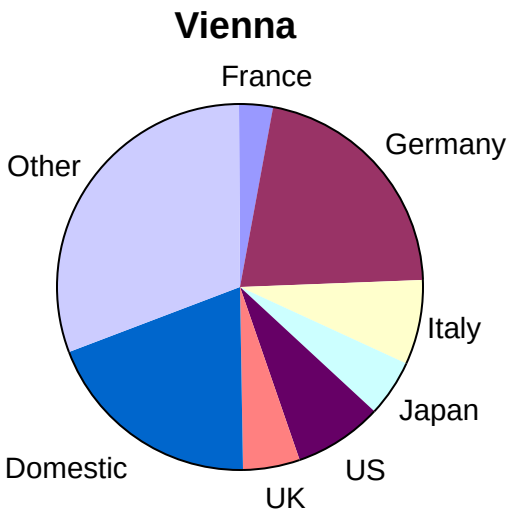
Hungary (Gini = 0.525)

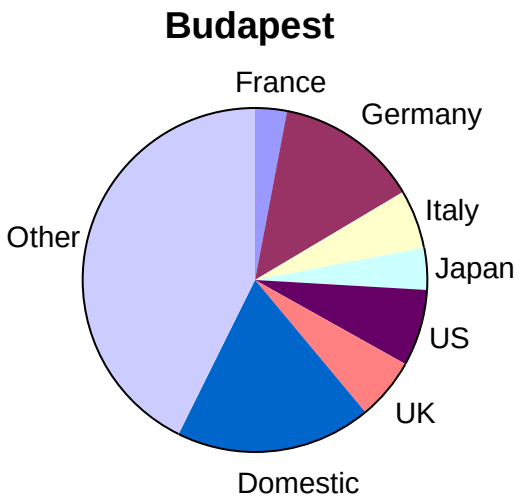
Analyzing the similarity of guest mix

Assumption: The comparison (variance) of guest mix shares defines a destination's exposure to interregional competition



V = 0.364





V = 0.193

Market volume and market growth analysis

& Portfolio visualization

A common problem in marketing …

To find the right (optimal) mix of target markets

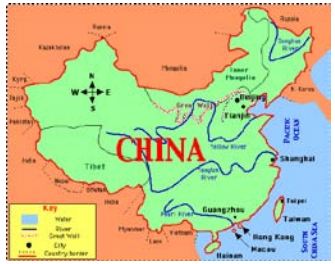
Implications for strategic (long-term) decisions and for the budget allocation process (e.g. where should we invest?)

2 basic questions:

- What makes a market attractive?
- What are our chances in attracting visitors from a particular market?

What makes a market attractive?

1. **Size/volume**



2. **Growth/Prospects**

- **Market volume and market growth indicators**
  - # of travellers/arrivals/bednights or spendings
  - either measured at the country of origin (source market) or in all destinations (e.g. total bednights in all destinations)

Portfolio analysis

What are our chances in attracting visitors from a particular market?

„Market chance indicators“

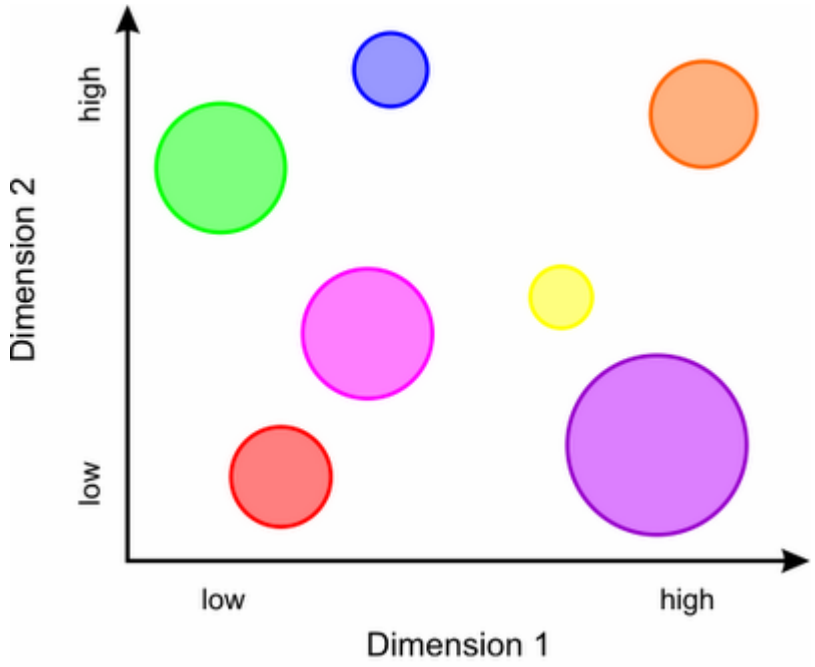
- **Destination awareness**
  - Knowledge, preference and sympathy towards a destination
- **Relative price level**
  - Comparison between prices of tourism goods and travel budget of travellers
- **Level of distribution**
  - Availability of a destination within the generating country‘s distributional system of tour operators and travel agents and online reservation systems
- **Competitive pressure**
  - Advertising budget invested by all competitors in a market
- **Travel distance**
  - Average financial input to cover travel distance

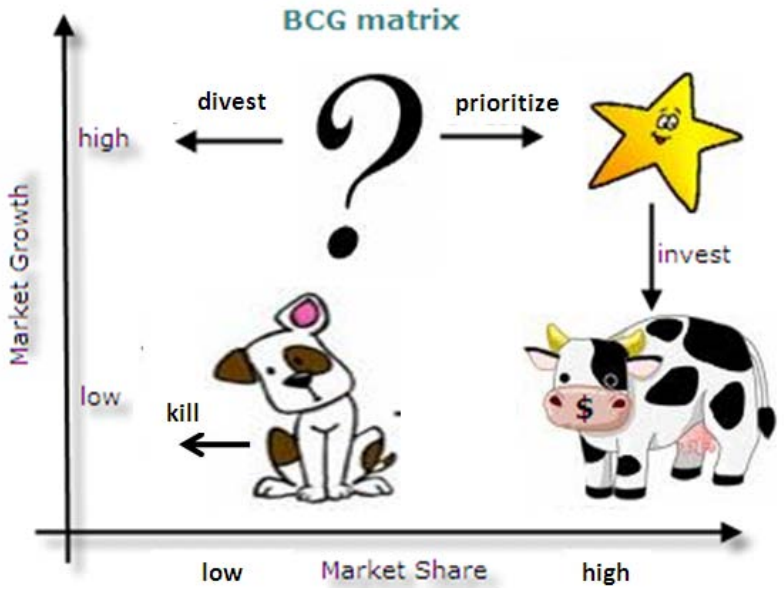
Strategic Key Performance Indicators

- **Market volume** is an absolute number describing the volume of tourism generated by a particular market
- **Market growth rate** is the percentage change of the market volume (in %)
- **Absolute market share** is the ratio when comparing the performance of a particular destination with the overall market volume (in %)
- **Relative market share** is the ratio of the market share of a particular destination compared to the market share of the leading destination (or the second best destination if the destination of evaluation is the market leader)
- **Guest mix share (= importance value)** is the proportion of bednights sold of a particular market compared to the overall number of bednights recorded in a tourism destination (in %)

Market growth-share matrix

Visualization





Examples on TourMIS

„Market volumes and shares of selected destinations“

- **Regional Level**
  - Portfolio analysis of Austrian provinces
- **City Level**
  - Portfolio analysis of cities in Europe
- **National Level**
  - Portfolio analysis of countries in Europe

The ECM Shopping Barometer

The ECM shopping barometer

- **Objective**
  - To shed light on the costs differential existing across cities in Europe, collecting publicly available data for a specific set of items among those commonly consumed by visitors.
  - The final goal of the project is to rank destinations according to their costliness and to gain a deeper insight on visitors' perception of their experience in a city.
- **Problems**
  - What prices to collect?
  - Comparability of services and a prices
- **Sample size**
  - 2012: 10
  - 2013: 38
  - 2014: 28

The ECM shopping barometer

- **Guidelines (Manual) – Prices should:**
  - reflect the final price (i.e. include VAT and eventual tourists taxes)
  - refer to the regular price for individual's consumption (discounts for groups or special categories are not considered)
  - are collected from businesses in the city center
  - are collected in the local currency (converted into Euro)
  - are collected at a specific time of the year, but refer to a one-year period
- **The shopping bundle covers the main service categories required by tourists at the destination**

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The ECM shopping barometer

16 items

Local transport	Taxi from airport to city centre (1 person including luggage)	If the city has more than one airport, the researcher has to select the **airport** recognized as the one where the majority of international guests arrive. The name of the airport has to be specified in the notes.
	Train from airport to city centre (1 ticket, 2nd class) OR public transport bus from the airport to the city center (1 ticket, regular)	
	1 day ticket for the local public transport	
Food and Beverage	Price for a business lunch of 3 courses, no drinks, in the restaurant of a 4-star hotel in the city centre	The restaurant can be part of one of the hotels contacted for the room rates.
	Price for a dinner of 3 courses, no drinks, in the restaurant of a 4-star hotel in the city centre	
	Price of a classic pizza, Margherita with 2 toppings, for 1 person	Price collected at a Pizza Hut in the city centre
	A Coke, 0,33 l, in a Pizza Hut restaurant in the city centre	If a 0,33 l Coke is not available, the price should refer to a medium size Coke (or other soft-drink).
	A Beer, 0,33 l, in a Pizza Hut restaurant in the city centre	If a 0,33 l beer is not available, the price should refer to a medium size beer.
	Big Mac meal at McDonalds in the city center	The price refers to a Big Mac menu, including 1 Big Mac, french fries and one drink at a regular price (no special offers)
	Espresso in the lobby bar of a 4-star hotel	The bar can be part of one of the hotels contacted for the room rates.
Entertainment	Regular price for 1 ticket for the opera, 1 adult, no reductions.	The opera should be a classical piece. The seat should be in the parterre, 5th row in the middle.
	Regular price for 1 ticket for a classical concert, 1 adult, no reductions.	The seat should be in the parterre, 5th row in the middle. If the concert takes place in different venues, select the price which represents the average between the different venues.
	Regular price for the entrance to the biggest/main museum (permanent collection), for 1 adult, no reductions.	The price should refer to the regular entrance fee and should not be collected on days with special offers.
	Regular price of 1 ticket for the hop-on hop-off sightseeing bus, 1 adult, no reductions	If the hop-on hop-off bus is not available, another similar sightseeing tour (e.g. tourist train) can be used and specified in the notes.
	Zoo, entrance of 1 adult, no reductions.	If the zoo is not available a similar attraction can be used (e.g. Tropicario, Mini Europe).

Visitors to attractions and sites

Webanalytics

Benchmarking tourism websites

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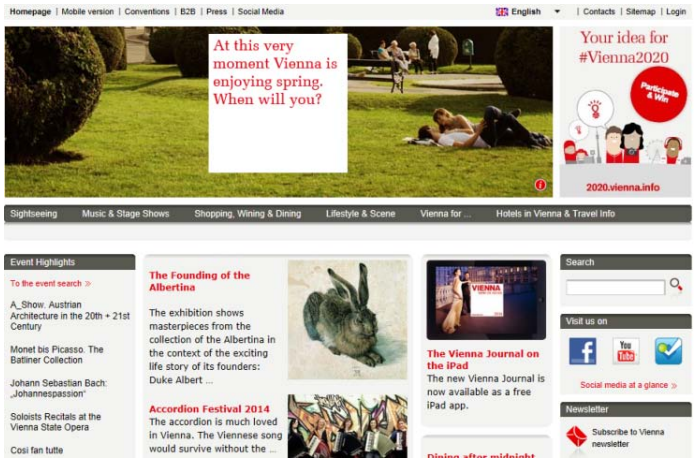
Allow insight into:

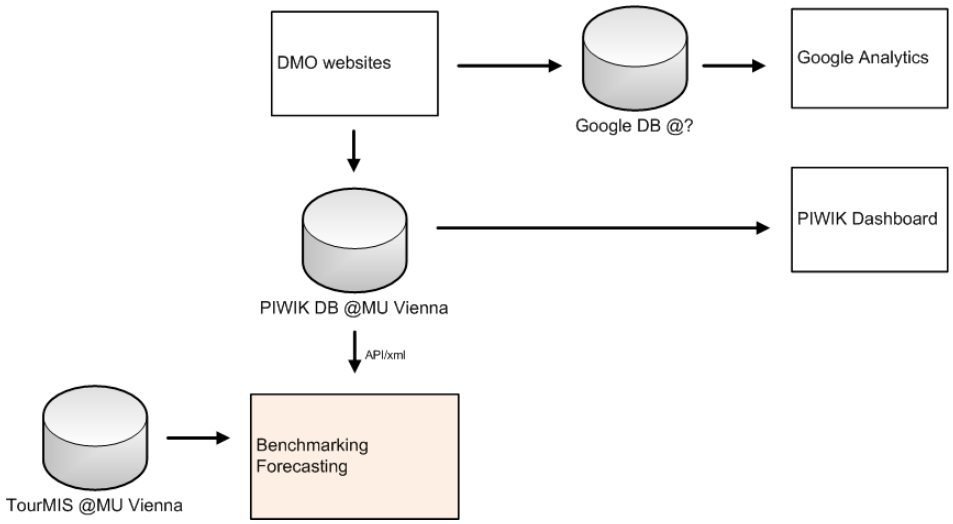
- Who is using your website?
- What are your visitors looking for?
- Where are users coming from and going to before and after visiting your website?
- When and how long has the website been accessed?

Most commonly used tools:

- Google Analytics, PIWIK (javascript tagging of pages in real-time)

Example: Vienna tourism website



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} catch( err ) {}
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Big data!

- www.vienna.info
  - 2013: 6.6mn visits (~ 550,000 p.m., 20,000 p.d.)
  - A rough estimate of Piwik Mysql database size usage is approximately 5.4GB for every 10M page views. If a website tracks 100k page views per day, we must expect a DB size of ~ 14GB after 1 year.
  - Vienna: ~ 3.6GB per year, 300MB per month
- Current project (2012/1-2014/3)
  - Vienna: 8.1GB
  - 10 cities: 72GB of Piwik data (vs. TourMIS database: 0.7GB)
- Vision: 120 cities, 10 years
  - = 3,840GB (+32 GB p.m. or +384 GB p.y.)
  - 100mn+ page views per month (~ 200 destinations), Piwik will start reaching php memory limits or other Mysql or hardware limitations

Web metrics (examples)

- Number of unique, new, and returning visitors (identified by IP address)
- Number of visits
  - If a visitor comes to a website for the first time, or if he visits a page more than 30 minutes after his last page view, this will be recorded as a new visit
  - A unique visitor can make multiple visits per day
  - In the first visit, the visitor is a new visitor
  - From the second visit (the same day or later), a unique visitor is a returning visitor
- Duration of visit
- Number of page views

Web metrics: Attributes (examples)

- Count of visitors by country
  - "Geolocation" = looking up the visitor's IP address in one of the online available GeoIP databases (e.g. MaxMind) or guessing a visitor's location based on the language (browser setting) he/she uses (99.8% accurate at the country and 90% accurate at the region level)
- Number and site that external visitors came from (referrer)
- Search engines used to find site
- Keywords used in the search engines
- Browsers and devices used by visitors

Possibilities for segmentation (examples)

- Visit location
  - city, continent, country, region
- Visit
  - browser, browser version, device type, operating system, resolution, visitor type (new, returning)
- Referrers
  - Keyword, name, type (direct, search, website, campaign)
- Metrics
  - Days since first/last visit, number of visits/actions/events, visit duration

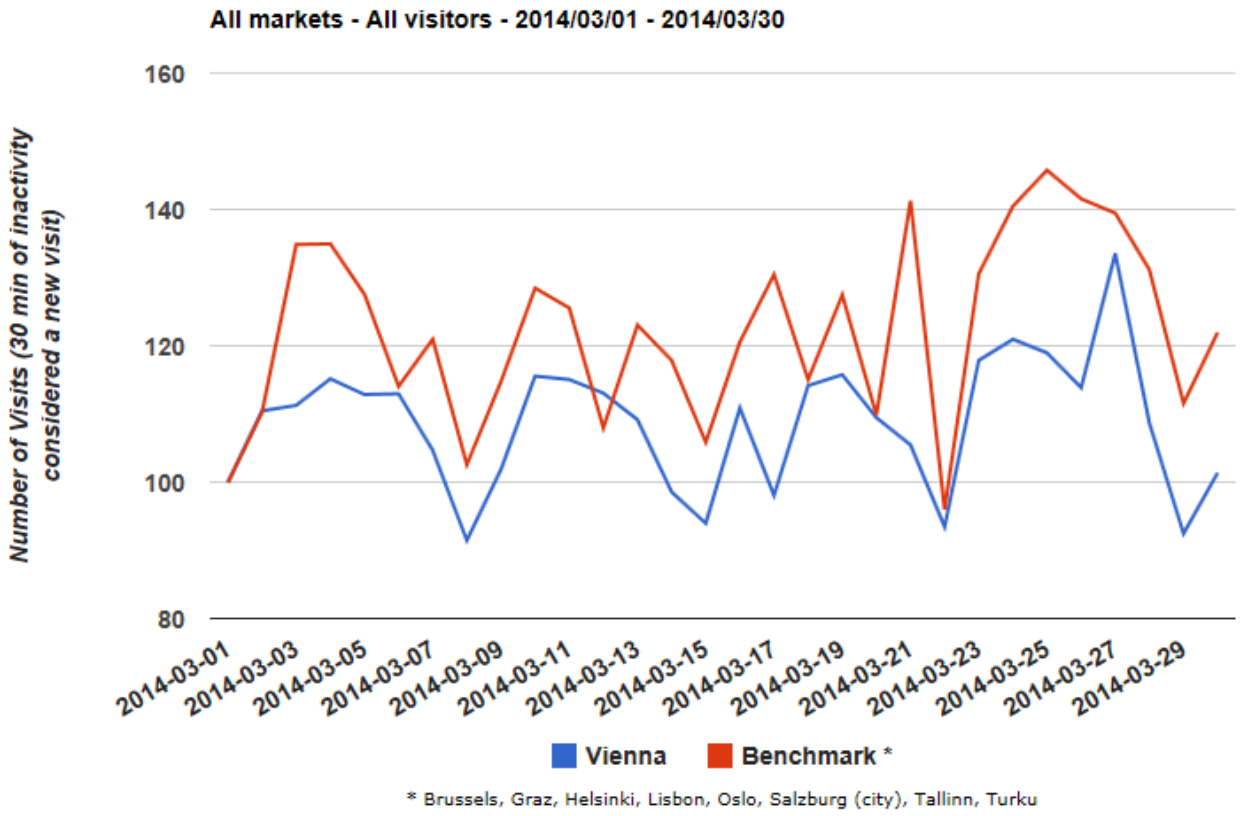
Defining a valuable visitor

Segmentation

	Visits	Visitors (Unique)	Non bouncing visitors	Standard visitors	Highly engaged visitors
Time on site		Important for KPIs	> 10 sec	> 90 sec	> 150 sec
Pages/visit			> 1	> 2	> 3

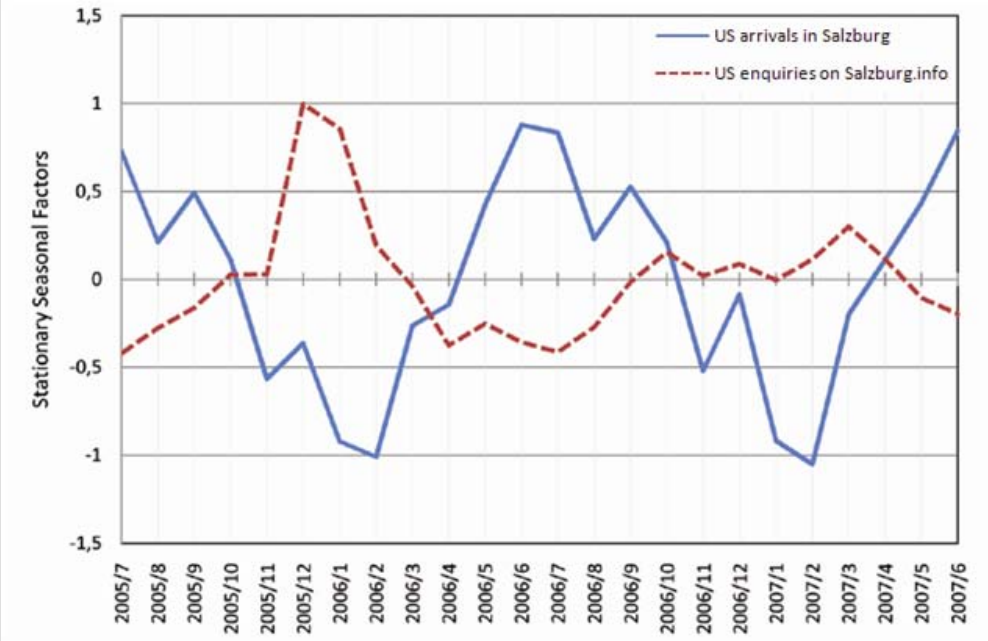
- Goal: Transforming data into valuable information
- Benchmarking

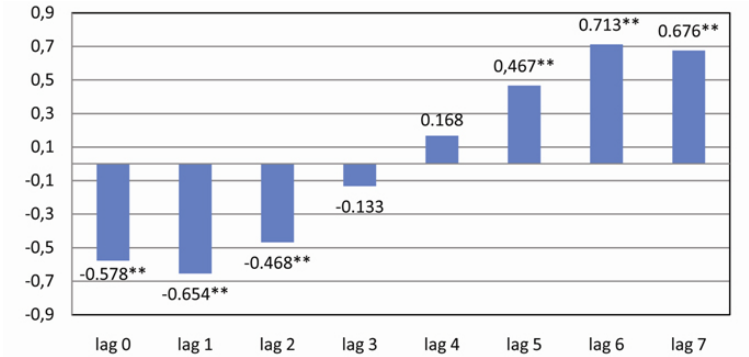
TourMIS - Example



TourMIS - Example

Comparison of US Arrivals in Salzburg and number of visits on www.salzburg.info





Pearson's correlations for various time lags. The higher the number of enquiries, the higher are the number of arrivals (for positive values).

The destination marketing metric changes

- DMO marketing budgets will continue to shift from traditional forms of marketing to online marketing campaigns
- Understanding what where and when something is reported and discussed becomes crucial
- Marketing companies will become specialists in placing ‚information seeds' in commercial and user-generated (social) media
- The success or failure of DMO marketing activities will become more measureable

Costs

- TourMIS webanalytics setup fee (snippet installation, database initialization, user rights) EUR 400,- (one time)

- Bandwidth contribution per year: EUR 400,- (starting on 1.1., initial months until 1.1. = free)

Outlook

- My TourMIS
- Completing new release
  - Austrian part? general information, frontpage blog?, bug fixes, ...
- Manual / learning videos
- Additional tables and features
- Bulk download in xml or xls (via menu and API)
- Collecting data for cities outside Europe
- MICE (data on meetings)
- Collecting data on daily expenditures of tourists
- Integrating external data sources (‚Linked data‘)

MyTourMIS: MyQuery

Setting: ‚flexible period‘

Today: September 11, 2014	Some day in the future: e.g. November 2014
Juli 2014	September 2014
2001 – 2012	2001 – 2012
January 2011 – August 2014	January 2011 – October 2014

Additional tables and new features

- New tables
  - Availability of tourism statistics in one market
  - Capacities: Showing longitudinal data
  - Attractions: Add number of opening days to tables that show visitor numbers
  - Attractions: Add additional input table for entering visitor numbers for multiple years (for one attraction)
  - Changing/standardizing the order of years in tables (‘oldest’ year – left column, ‘newest’ year – right column)

Proposing new tables

Drafting a new table
Example: Average length of stay

Suggested label of table: Average length of stay in one ETC destination

Destination=<to be selected>

Type of Accommodation=<to be selected>

Period=mm1/yy1 - mm2/yy2 <to be selected>

	Arrivals			Bednights			Avg Length of Stay	
	mm1/yy1 – mm2/yy2 (absolute)	mm1/(yy1-1) – mm2/(yy2-1) (absolute)	%-p.y.	mm1/yy1 – mm2/yy2 (absolute)	mm1/(yy1-1) – mm2/(yy2-1) (absolute)	%-p.y.	mm1/yy1 – mm2/yy2 (days)	mm1/(yy1-1) – mm2/(yy2-1) (days)
Market A								
...								
Market Z								

Submit to tourmis@modul.ac.at

Bulk download in xml or xls via API/menu

http://www.tourmis.info/cgi-bin/tmxml2.pl?c=N&m=UK&d=BER:VIE:AMS&t=2001:2009&r=s&p=a&f=0

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Content A	data
Market A	data
Time A	data
Time B	data
Time C	data
Market B	data
Time A	data
Time B	data
Time C	data
Content B	data
Market A	data
Time A	data
Time B	data
Time C	data
Market B	data
Time A	data
Time B	data
Time C	data
Destination B	data
Content A	data
Market A	data
Time A	data
Time B	data
Time C	data
Market B	data
Time A	data
Time B	data
Time C	data
Content B	data
....	

Collecting data on daily expenditures

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Objectives:

1. Monitoring and comparing the daily expenditures of all and individual markets (domestic plus 59 foreign markets) for destinations who perform visitor surveys

   Focus: Average daily expenditures of tourists (excluding transportation to the destination) broken down by
   - accommodation
   - food and beverages
   - entertainment
   - shopping
   - local transportation
   - other
2. Developing an econometric model which allows to estimate the direct economic contribution of tourism even if there is no or only incomplete data available for a particular destination