In the following we will analyze the given Dataset, regarding the correspondent’s opinion about a variety of cities from a touristic viewpoint. Those specific cities will also be contextualized in a geographical, purely relational manner. In order to better structure our analysis and the subsequent findings and interpretations to maintain inner structure and logical consistency, we will be adhering to the following sequence of contents.

1. Economical contextualization
2. Dataset
3. Factor Analysis
4. FA interpretation
5. Factor isolation
6. Economical interpretation
7. Limitations

# Economic Context

In order to better direct our analysis of the given dataset in a contextually valuable direction and form a stringent conclusion, we will use an economic context as a driving force behind our analysis. Without a distinct goal in mind it is very hard to gain conclusive insight into any given Dataset, due to the sheer amount of possible differing interpretations. Utilizing a goal in mind with a core objective of gaining insight into the respective problem area, greatly enhances the inherent logical structure, as well as the case-bound informative value of any achieved results or final assertions. Our choices and scientific procedure in this analysis will all be based upon the assumption of the economic case as follows.

We are hired by a city tour operator from Europe to gather insights into the preferences of a younger target audience regarding the most common cities for travel across Europe. While they are already operating in several cities, they conducted a questionnaire among students and young adults to gain further insights needed in order to potentially expand their company. In order to do so in a meaningful manner, we will have to adjust our dataset to the given circumstances.

# Dataset and Data Cleaning

When working on an economic case as the above, it is key to exploit the given data pool to its full potential and reduce fringe inaccuracies and non-relevant datapoints as much as possible. In order to do so, and to better be able to come to more conclusive results regarding the underlying economic problem its been proven to be best practice to further segment the data set. In a marketing setting this step usually involves a so-called customer segmentation, thus separating the entire customer base by certain parameters such as social status, psychological profiles, social reference groups or economic status. Members of one of those subsegments of the customer base are more likely to share certain characteristics that lead to similar preferences in products or services and similar responses to differing product offerings or price fluctuations.

In our case, when analyzing the given dataset, we noticed that most respondents seemed to belong to a customer group of “students” from a major city or adjacent/similar groups. In order to ensure greater homogeneity among our analytics dataset, we preselected by the following parameters to form a subset from the given data.

1. Age range

We only included respondents in our subset who were aged between 18 and 29. Generational segmentation is widely accepted in marketing theory due to similar circumstances while growing up and their implications for prevalent characteristics

1. Occupation

As for the occupation of respondents, we chose to only include those in our subset that explicitly stated they were students. This selection is mainly an indication of economic status, posing implications for disposable income and overall average buying power. For any respondents where the occupational status was unclear, we chose to not include their respective datapoints, as a smaller subset with greater homogeneity is far informationally significant than one with falsely assumed positive datapoints to the chosen economic subset.

1. Nationality

In our new subset, we only included datapoints from respondents that indicated they are living in Germany currently. Because the questions are of relational nature, the implications of given answers are vastly different whether a respondent gives answers from the perspective of a local, when asked about their home city, or one of a tourist, regarding any other city. Furthermore, by limiting the respondents to one geographical factor, cultural homogeneity further increases.

# Economic analysis

The economic implications and further usability that the clustering of the cities by Factors pose are as follows. In any given company portfolio, the marketing research team is also tasked with finding the preferences and priorities that distinct groups of customers have. Those can then be used to either improve upon a preexisting product portfolio or expand upon one, with objectively better predictive accuracy.

In this specific case, the clustering done, for the three most fitting cities regarding Factor Values for “urban”, “wealthy”, “charming” and “young” can be effectively used to separate the different city trips offered by a company by the demand profiles the respective customers have. In application this means, that travelers who are looking for an “urban” city trip experience, would most likely enjoy Berlin, London and Amsterdam most as a destination. Furthermore, the product identity, in this case the offerings for trips to Berlin, London and Amsterdam should be similarly including visits to the trendy neighborhoods, Bars, Cafes and Clubs, because that is what the respective customers are most likely looking for.

So when entering a new market, of young “budget” travelers and students, it makes the exploration and introduction of new products and services vastly more simple, if all offered trips are structured along the recommended Factors, and the product specifications in accordance to respective customer preferences.

On a second level this analysis can also serve as a type of recommender feature, most easily used by customer representatives, when advising on a next trip. By gaining insight into previous and most well-liked travel destinations of a certain customer, the representative can give analytically sound recommendations, based on factor clustering. A given customer that stated their favorite travel destination was Paris, due to the romantic and historical nature of the city, would be then recommended Rome as a next trip. The similarity between the two cities in primary attributes, increasing potential customer satisfaction