

## Project Customer Relationship Management

### Background

A company with 35 outlets offers 13 different services to customers. For better understanding of the opinion of the customers about the company and of the usage of the different services the management carries out a survey. Besides the answers to the survey the data in **customer.xlsx** inform also about the business activities of the customers.

### Some questions of interest

Some questions of interest. You can find probably others.

1. Demographic structure of the customers
2. What is the opinion of the customers about the company? Is there any relationship between customer demographics and the opinion of the customers about the company?
3. Usage of the different services. Is there a relationship between usage of the services and customer characteristics?
4. Can we predict the usage of the services from past usage?
5. How is the performance in the different outlets?
6. What is the pattern of visits of the different outlets?
7. Can we find clusters of different users groups with similar usage behavior?

## Description of the variables

Variable	Codes	Explanation
QuestionnaireType	online; shop	Mode of the survey, either an online questionnaire or a paper questionnaire in one of the outlets
DateQuestionnaire	dd.mm.yyy hh:mm	Date when the questionnaire was received
OutletSurvey	Outlet1 -Outlet35	Outlet where the questionnaire was received (Outlet1 = online)
<b>Customer Demographics</b>		
CustomerID		Customer identification
RegionCode		A two digit code for the region where the customer lives
Sex	female; male	Sex of the customer
Age	19 - 45; 45 - 60; >60	Age group of the customer
Language	german; other	Mother tongue of the customer
SocialNetworks	yes; no	Whether the customer is active in social networks
ProfessionalUser	yes; no	Whether the customer is a professional user or not
LeadingPosition	yes; no	Whether the customer is in a leading position or not
Education	yes; no	Whether the customer is a student or not
WorkOffice	yes; no	Whether the customer works in an office or not
<b>Survey questions</b>		
AdviceStaff	yes; no	Whether the customer uses advice from the staff in the outlet or not
CompetenceStaff	1 (very high) -9 (very low)	Evaluation of staff competency
FriendlynessStaff	1 (very high) -9 (very low)	Evaluation of staff friendliness
HelpfulnessStaff	1 (very high) -9 (very low)	Evaluation of staff helpfulness
AvailabilityStaff	1 (very high) -9 (very low)	Evaluation of staff availability
EnvironmentConcern	1 (very high) -9 (very low)	Evaluation of personal concerns about environmental issues
Sustainability	1 (very high) -9 (very low)	Evaluation of importance of sustainability
ServiceOrientation	1 (very high) -9 (very low)	Evaluation of service orientation in the outlets
<b>Information about usage of services</b>		
Service1 - Service13	currency (100 €)	Amount paid in the last period for the different services
SumServices	currency (100 €)	Sum of the payments for the different services
SalesTotal	currency (100 €)	Total payments over the entire business relationship to the company
StartCRM	dd.mm.yyyy	Start of the relationship to the company (00.01.1900 unknown)
LastContact	dd.mm.yyyy	Last contact with the company
VisitsOutlet2 - VisitsOutlet35	integer	Number of visits in the outlets during the entire business relationship