Credit Card Defaults Analysis

**Abstract**

The banks with the invent of the credit card were more focused on the number of customers using their credit service but the drawback of them not being able to pay back the credit in time was an issue that soon followed, a system was in need to effectively decide the credit limit to be allowed to a person based on his previous credit history.

**Problem Statement**

Visualise the impact of age, marital status, education and gender on defaulting credit card payment with the help of given data.

**Data Description**

There are 26 variables:

| **Column** | **Description** |
| --- | --- |
| ID | ID of each client |
| LIMIT\_BAL | Amount of given credit in NT dollars |
| SEX | Gender (1=male, 2=female) |
| EDUCATION | 1=graduate school, 2=university, 3=high school, 4=others, 5=unknown, 6=unknown |
| MARRIAGE | Marital status (1=married, 2=single, 3=others) |
| AGE | Age in years |
| PAY\_0 | Repayment status in September, 2005 (-1=pay duly, 1=payment delay for one month, 2=payment delay for two months, ... 8=payment delay for eight months, 9=payment delay for nine months and above) |
| PAY\_2 | Repayment status in August, 2005 (scale same as above) |
| PAY\_3 | Repayment status in July, 2005 (scale same as above) |
| PAY\_4 | Repayment status in June, 2005 (scale same as above) |
| PAY\_5 | Repayment status in May, 2005 (scale same as above) |
| PAY\_6 | Repayment status in April, 2005 (scale same as above) |
| BILL\_AMT1 | Amount of bill statement in September, 2005 (NT dollar) |
| BILL\_AMT2 | Amount of bill statement in August, 2005 (NT dollar) |
| BILL\_AMT3 | Amount of bill statement in July, 2005 (NT dollar) |
| BILL\_AMT4 | Amount of bill statement in June, 2005 (NT dollar) |
| BILL\_AMT5 | Amount of bill statement in May, 2005 (NT dollar) |
| BILL\_AMT6 | Amount of bill statement in April, 2005 (NT dollar) |
| PAY\_AMT1 | Amount of previous payment in September, 2005 (NT dollar) |
| PAY\_AMT2 | Amount of previous payment in August, 2005 (NT dollar) |
| PAY\_AMT3 | Amount of previous payment in July, 2005 (NT dollar) |
| PAY\_AMT4 | Amount of previous payment in June, 2005 (NT dollar) |
| PAY\_AMT5 | Amount of previous payment in May, 2005 (NT dollar) |
| PAY\_AMT6 | Amount of previous payment in April, 2005 (NT dollar) |
| default.payment.next.month | Default payment (1=yes, 0=no) |
| states | States in USA |

**Scope:**

* Identify relationships among the features
* Visually analysing factors that affect the default risk

**Learning Outcome:**

The purpose of this exercise to look into different Power BI features to create credit risk analysis dashboard that analyzes credit card data to assess the risk of credit default.