Credit Analysis

Average Probability of Default

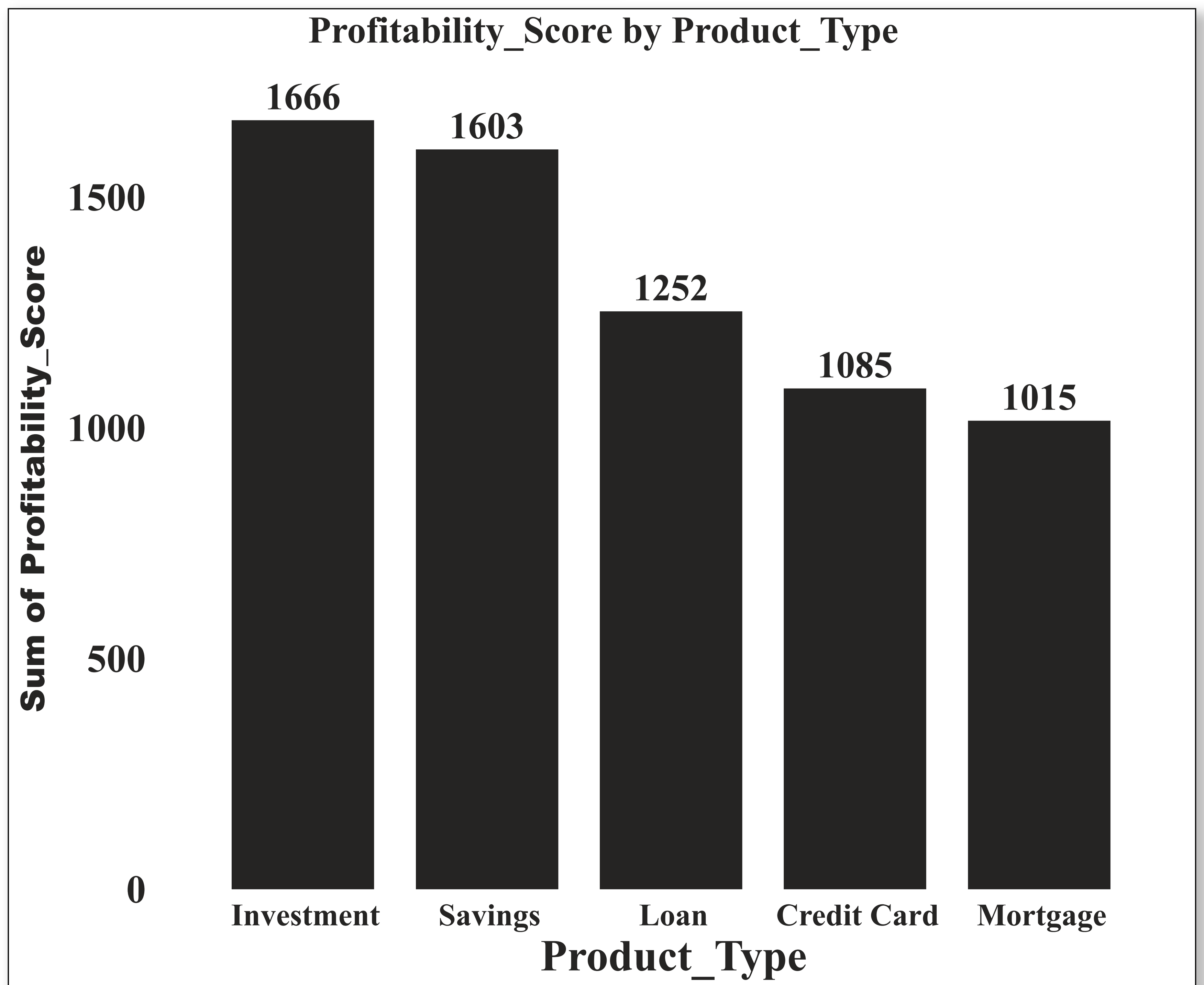
0.28

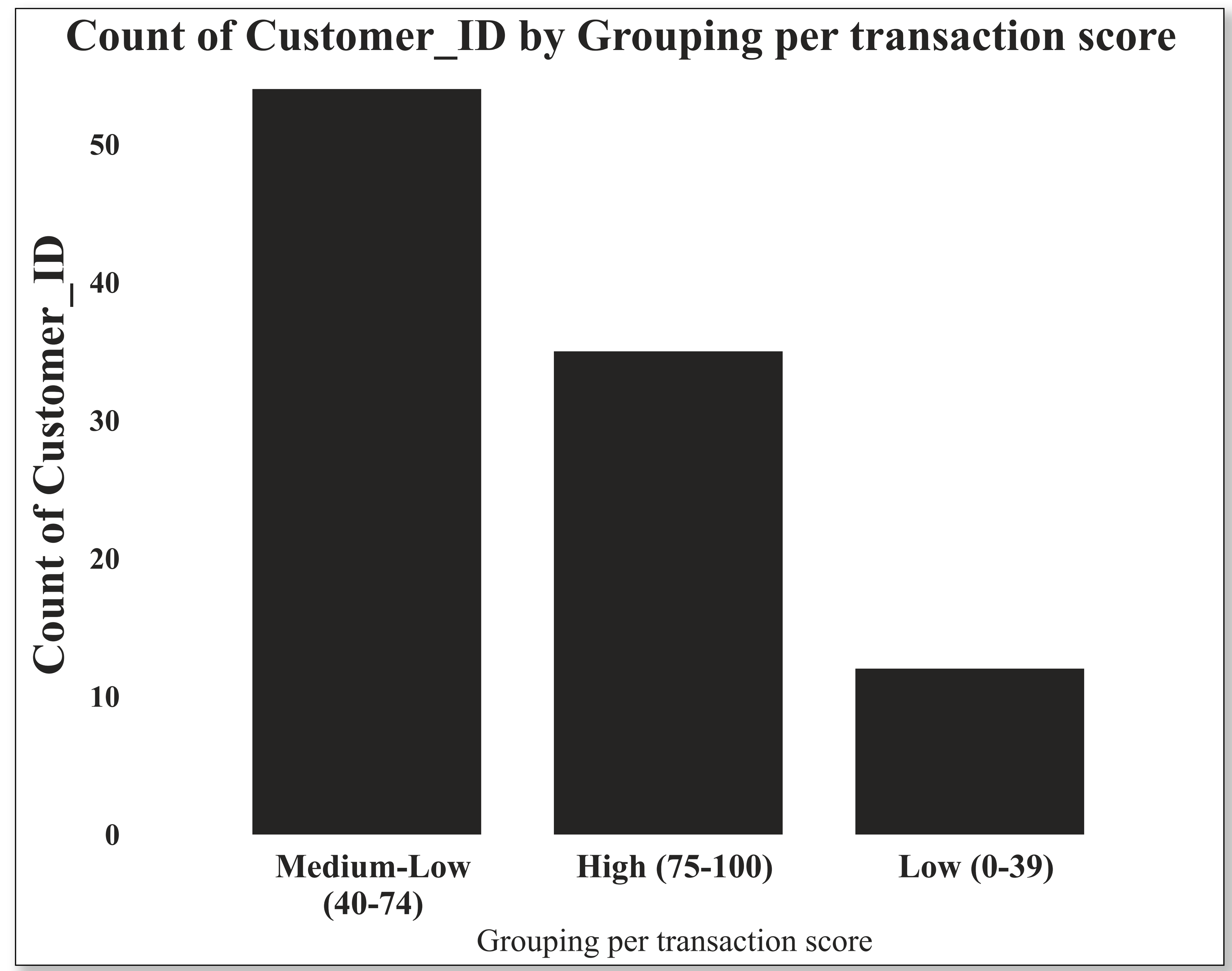
Correlation Between Credit Score and probability of default

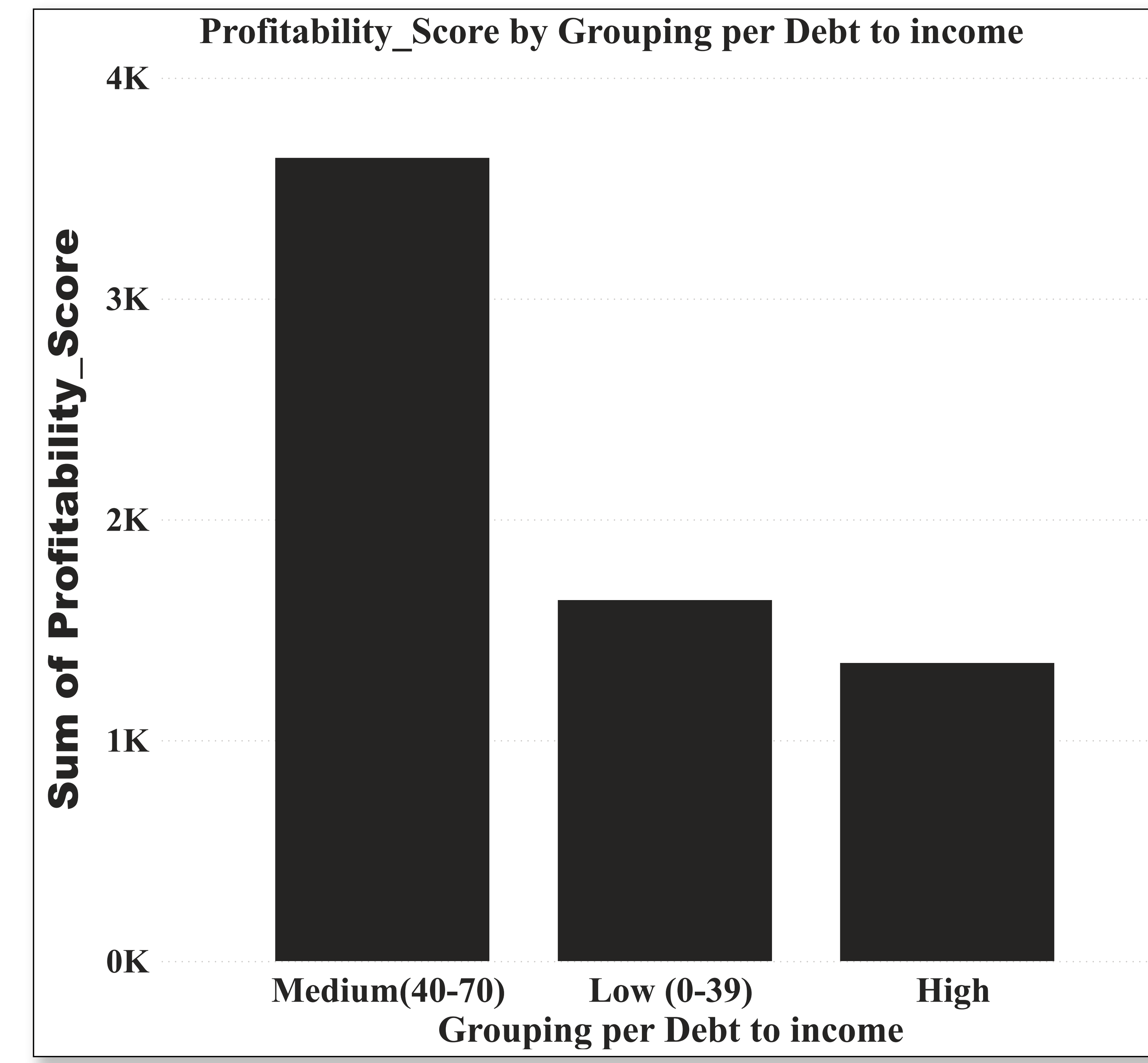
0.04

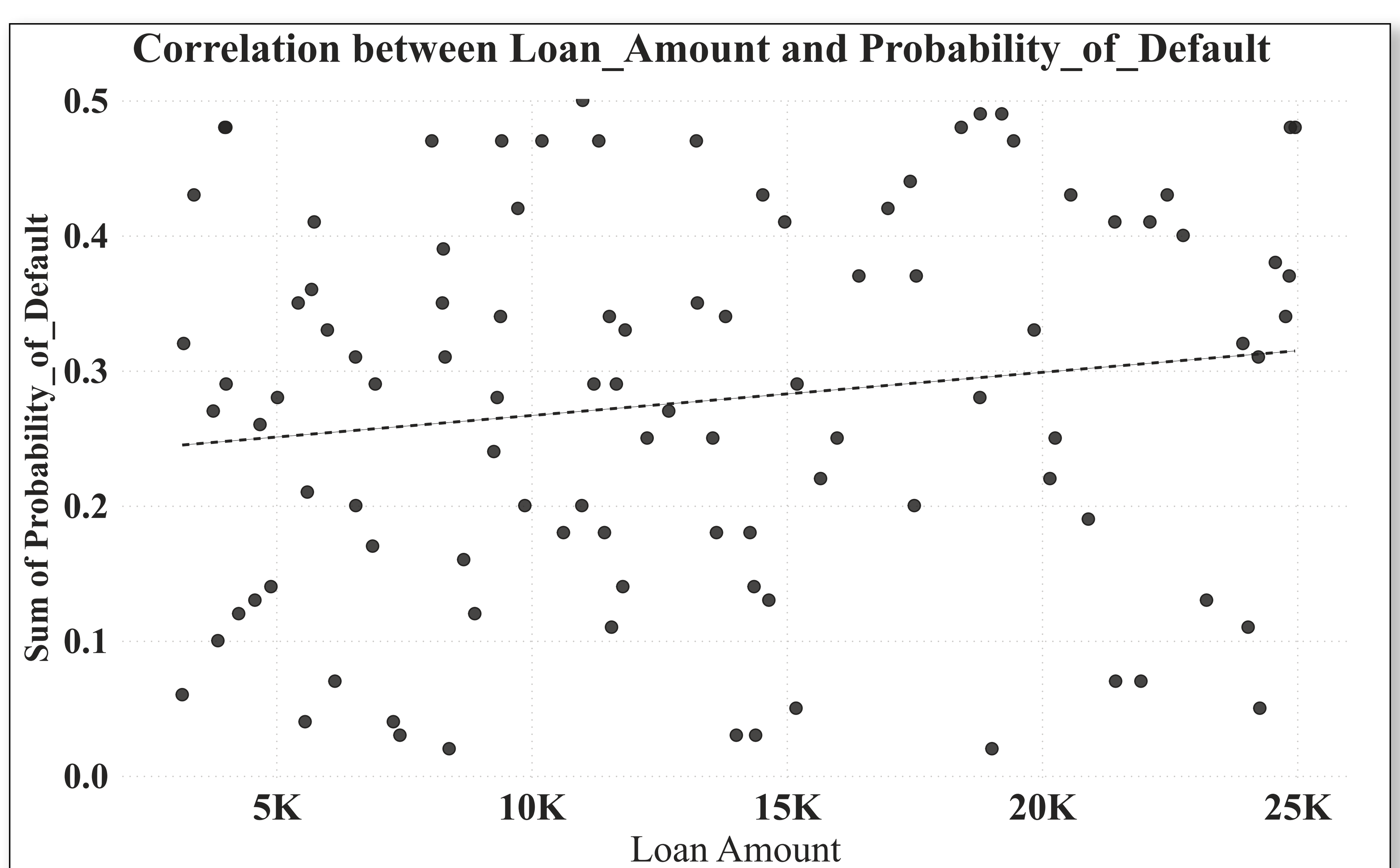
% Low Credit Score & High risk of default

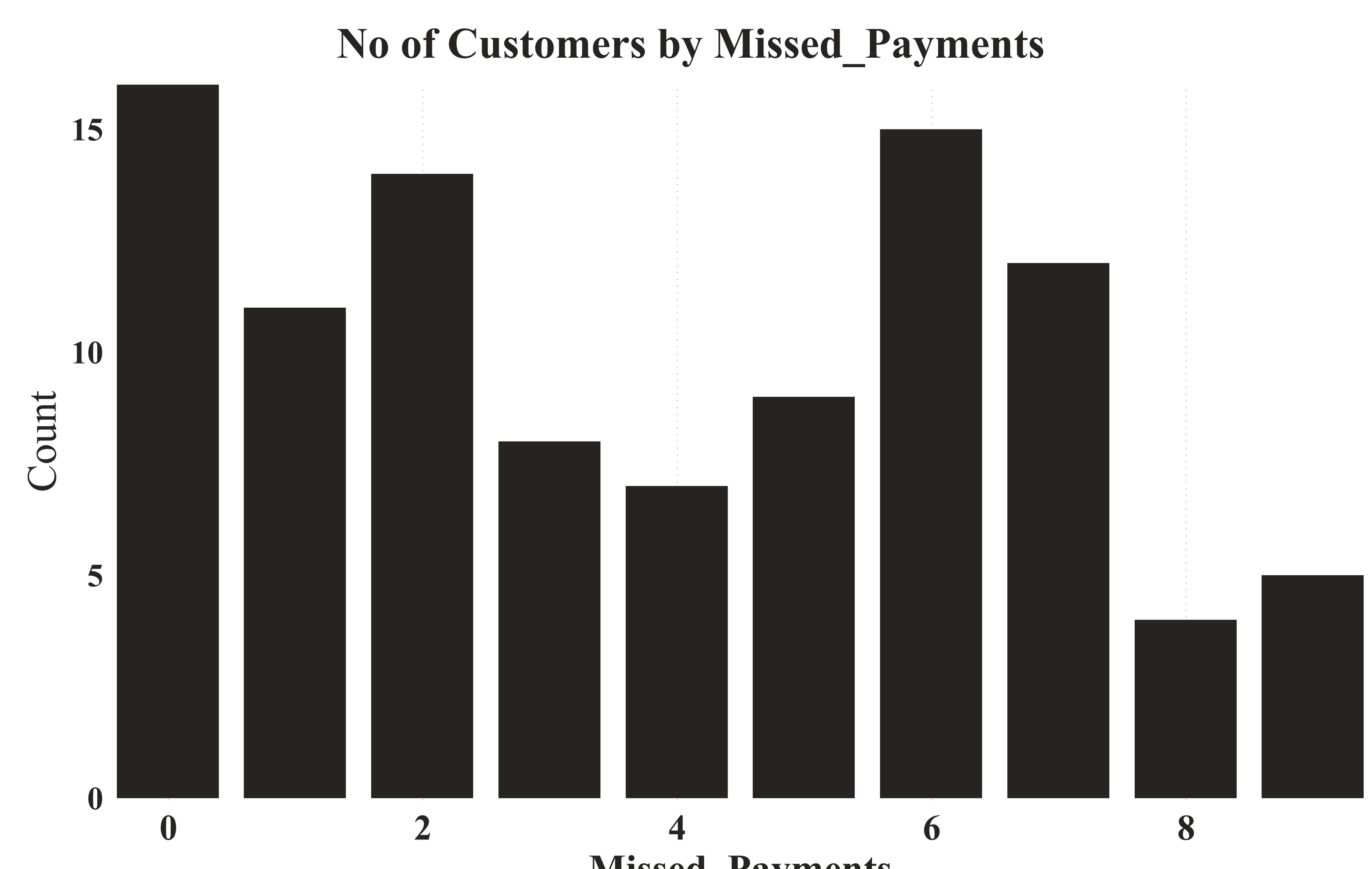
7.92

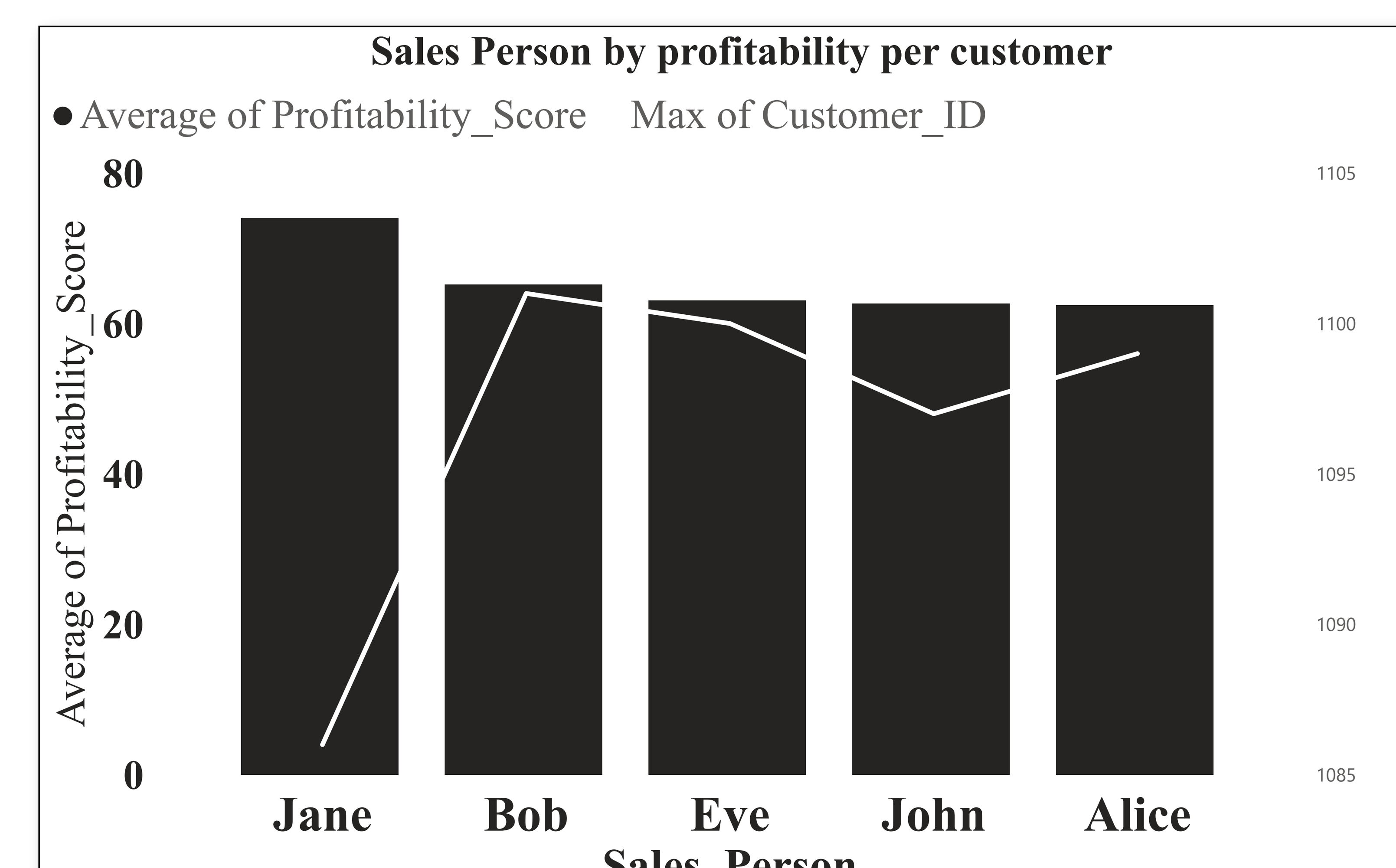






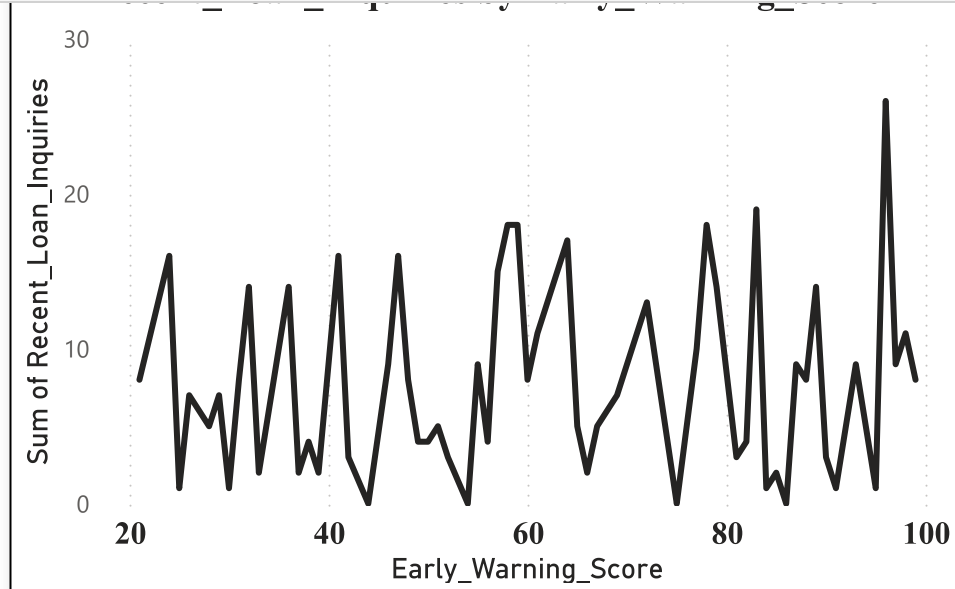




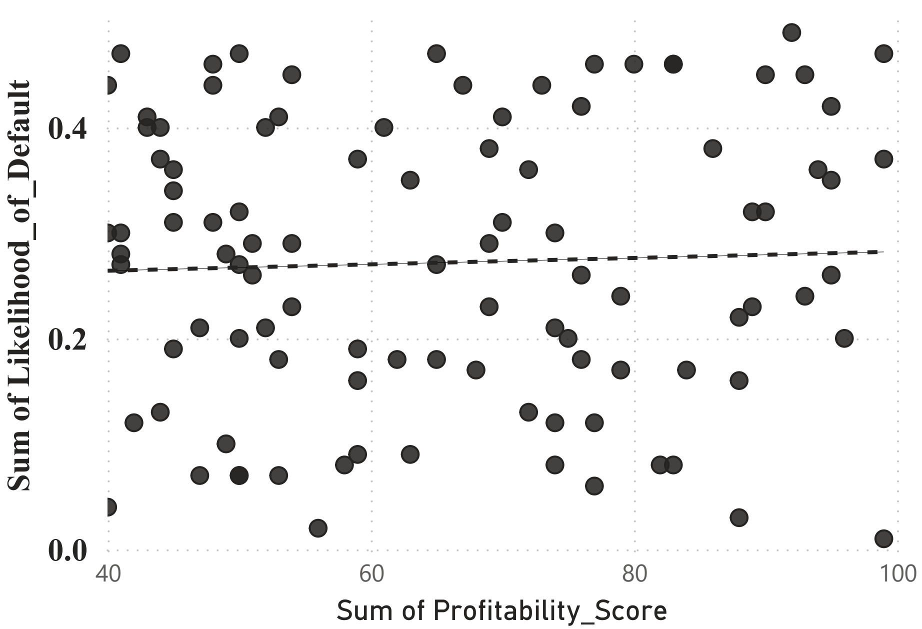


Profitability Per Branch

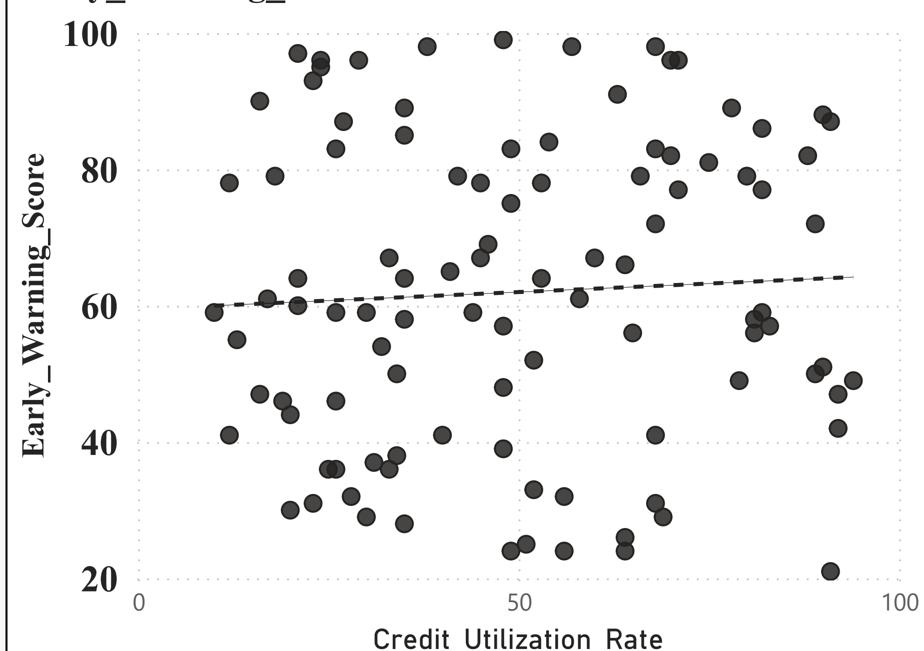
Bank_Branch	Sum of Profitability_Score
Chicago	1462
Houston	896
Los Angeles	1367
Miami	1350
New York	1546
Total	6621



Correlation between profitability score by Likelihood of default



Correlation between Credit_Utilization_Rate and Early_Warning_Score



Findings

1)Low Correlation Between Credit Score and Probability of Default

- The correlation coefficient of **0.04** suggests that credit score alone is not a strong predictor of default likelihood. Other factors might have a greater impact.

2)High Default Risk Among Customers with Low Credit Scores

- **7.92% of customers** have both a **credit score below 600** and a **high probability of default (>30%)**, indicating a segment that requires close monitoring.

3)Profitability Score Varies by Product Type

- Investment and savings products show the highest profitability scores, while mortgages and credit cards contribute lower profitability.

4)Debt-to-Income Ratio and Profitability

- Customers with a **moderate debt-to-income ratio (40-70%)** generate the highest profitability, while those with very high debt levels have significantly lower profitability.

5)Salesperson Performance

- **Jane** has the highest average profitability per customer, followed by **Bob and Eve**, indicating strong sales efficiency.

6)Missed Payments and Customer Distribution

- Customers with **2 missed payments** are the highest in number, but significant defaults begin appearing as the missed payments increase.