Key Insights from Credit Risk Analysis:

1. High Annual Income as a Strong Indicator of Creditworthiness

Customers with a high annual income exhibit more favourable financial behaviour, including:

- Fewer delayed payments.
- Lower overall debt levels.
- Lower credit utilization ratios

These individuals present **minimal credit risk** to lenders, as their financial stability allows them to manage repayments effectively.

2. Longer Credit History Correlates with Stronger Financial Discipline

Borrowers with an extended credit history tend to:

- Make fewer delayed payments.
- Maintain lower levels of debt.

On the other hand, customers with frequent delayed payments and higher debt levels are **more likely** to pose a credit risk to lenders.

3. Minimum Payments Linked to Poor Credit Mix

Customers who consistently pay only the minimum amount on their credit balances typically have a **poor credit mix**, meaning they may lack a balanced portfolio of different types of credit, such as mortgages, car loans, and credit cards. This behavior could signal **credit mismanagement** and **higher potential risk**.

4. **High Credit Utilization as a Red Flag for Default and Financial Stress**

A high credit utilization ratio is strongly correlated with:

- Missed payments and potential defaults.
- High debt burdens.
- Frequent credit inquiries, which often indicate financial strain.

Customers with high credit utilization are more likely to face **credit risk** due to their difficulty in managing existing debt.

5. **Age and Credit Score Stability**

- **Customers over 35** generally have stronger credit scores, reflecting better financial management and a history of responsible credit behavior.
- **Younger customers (ages 18-35)** show more variability, with both high and low credit scores present in this age group, indicating mixed financial stability and experience.

6. **Credit Inquiries Correlated with Debt and Borrowing Behavior**

The number of credit inquiries is positively correlated with:

- Number of credit cards held.
- Amount of debt.
- Number of loans taken.

Multiple credit inquiries can suggest an individual is frequently seeking new credit, potentially signaling **financial stress** or an aggressive borrowing pattern.

These insights highlight key behavioural trends among borrowers, helping lenders identify both **low-risk** and **high-risk customers**, while enabling better risk management strategies.

Recommendations for Credit Risk Management:

1. **Prioritize High-Earning Customers**

Lenders should prioritize customers with **high annual incomes**, as they typically demonstrate stronger financial stability, lower credit utilization, and fewer delayed payments.

2. **Implement Income-Based Loan Limitations**

To reduce the likelihood of delayed payments, loan amounts should be **calibrated to a customer's monthly income**.

3. **Exercise Caution with Customers Lacking Credit History**

Borrowers with **limited or no credit history** should be approached with caution, as they represent a higher credit risk due to the lack of proven repayment behaviour.

4. **Encourage Credit Status Improvement for Low-Risk Borrowers**

Customers with **good credit status** should be encouraged to improve their credit scores and move toward **excellent credit status**.

5. **Limit Loan Amounts for Average-Risk Customers**

For customers with **good or average credit scores**, lenders should only sanction **smaller loan amounts** to mitigate risk.

6. **Conduct Rigorous Evaluation for High Loan Amounts**

Approval of **high loan amounts** should only be granted after a thorough evaluation of factors correlated with high credit risk, such as debt levels, credit utilization, and repayment history.

These recommendations aim to enhance the **risk management process**, ensuring that credit is extended responsibly while minimizing the exposure to default risk.