Recommender System for Boosting NPS Score

<table>
<thead>
<tr>
<th>Customer</th>
<th>Bench1</th>
<th>Bench2</th>
<th>Bench3</th>
<th>Comments</th>
<th>Prom_Stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cust1</td>
<td>high</td>
<td>med</td>
<td>high</td>
<td>C1, C2</td>
<td>Prom</td>
</tr>
<tr>
<td>Cust2</td>
<td>med</td>
<td>med</td>
<td>med</td>
<td>C1, C3</td>
<td>Pass</td>
</tr>
<tr>
<td>Cust3</td>
<td></td>
<td></td>
<td></td>
<td>C4, C3</td>
<td></td>
</tr>
</tbody>
</table>

Benchmark Values = {low, medium, high}

Comments Partitioned into Clusters
[Comments in the same cluster if their topic is the same]

- C1 refers to Bench2
- C4 refers to Bench1
- C2, C3 refers to Bench3

Extracted Rules (example)

- R1 = [(Bench1=high) & (Bench2=med) \( \Rightarrow \) (Prom_Stat = Prom)]
  - Cust1 supports rule R1; Let’s say Confidence=90%
- R2 = [(Bench1=med) & (Bench3=med) \( \Rightarrow \) (Prom_Stat = Pass)]
  - Cust2 supports rule R2; Let’s say Confidence=95%
- [(Bench1, med -> high) & (Bench2=med) \( \Rightarrow \) (Prom_Stat, Pass -> Prom)]
  - Cust2 supports the rule; Confidence=90%*95%=85.5%

Action Rules Construction

Now, if (Bench2=med) for Cust2 then by changing its Bench1 from med to high we get Cust2 changing Prom_Stat from Pass to Promoter. The confidence that Cust2 will become promoter is 85.5%

To get the trigger for the change [(Bench1, med -> high)] we have to identify Cluster referring to Bench1. Cluster “Knowledgeable Staff” points to Bench1 which means “knowledgeable staff” is the trigger.