(Q1) E(S) = 5 - p; lag pi

In this example:

-3/10 log 2 (3/10)- 7/10 × log2 (1/10) ≈ 0.88

Intermation gain:

IG (Y,x)= E(Y)- E(YIX)

Decision Tree

[ Entire population] (30)

[Balana] <50k [Balance] 750k

1=(P) = 16/30 log2 (16/30) - 14/30 log2 (14/30) ≈.99

E(BL50 K)= 2 0.39

E (B >50K) = 2 6,79

[ (Balence) = 13/30 × 0:39 + 17/30 × 0.79

0.62

| Inp Gain:  |  |
|--|--|
| I (P,B) => 0.19-0.62<br>=> 0.37  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| and the later has been a   |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| The same of the sa |  |

