**4)**

**ASSUMPTIONS**

1. One customer can only make one claim each year.
2. The probability of making a claim is fixed and equal for each customer.
3. Claims are made independently of each other and no customer is influenced by the other.
4. The value of the premium is fixed irrespective of the size of the claim.
5. All customers are loyal and will not drop out at any circumstance(eg:- When premium increases)
6. No deductibles are paid by any customers.
7. The company will retain all premiums charged with itself and not invest on anything else.

**FACTORS THAT THE COMPANY CAN CONTROL**

1. For the risk of bankruptcy to be less than 2%, ensuring stability, the minimum premium that the company should charge is £7250 based on previous calculations. It is best if the company can stand firm with this pricing which indeed will improve the company’s reputation.
2. The maximum estimated probability of a customer making a claim is 0.08 for the risk of bankruptcy to be less than 2%. Forecast the probability of a customer making a claim before accepting customers and accept those who are at most 8% likely to make a claim.
3. Work together and maintain dialogues with customers throughout the year and not limit to the time of bankruptcy. Organize events, seminars and workshops aimed at networking with customers.
4. Do not wait till the net balance has reached zero to calculate the risk of bankruptcy. Always keep updated with the evaluations.
5. Conduct frequent seminars providing advice to minimize avoidable risks.
6. Find the relationship between number of claims made per year and risk of bankruptcy and limit to the maximum number of claims with minimal risk.

**RESERVATIONS**

1. The probability of a customer making a claim is practically not fixed. It varies with each customer and is dependent on age, annual income, etc.
2. Throughout our analysis, the values for α and β were fixed. The risk of bankruptcy may vary with different values of α and β. But our calculation is restricted to α=3 and β=1000.
3. Claims made by customers are generally not independent of each other.
4. In reality, one customer can make more than one claim per year.
5. There is a time constraint in the above analysis, which restricts the company to come to conclusions due to insufficient information.