**Lukas’ Love Links**

Lukas’ Love Links is an online dating agency, based in Frankfurt, which aims to help expatriates across Europe find love online. They currently operate in Germany, Austria, France and Belgium and their key selling point is the experience of working with expatriate clients from all cultural backgrounds. They pride themselves in offering a high quality service and marketing campaigns state they will find all of their clients suitable matches within 6 months of membership. In fact, the average customer is a member for 3.5 months.

Lukas’ Love Links are planning to expand in the near future and need to decide whether they should move into Spain or Italy, the 2 best options their market research has identified. Details for the 2 options are outlined below:

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| --- | --- | --- |
| Item | Cost in Italy (Euros) | Cost in Spain (Euros) |
| Monthly Salary Payments - Resident Staff | 220,000 | 190,000 |
| Annual Salaries – Additional Employees in Frankfurt | 250,000 | 250,000 |
| Marketing Costs Per Month | 75,000 | 55,000 |
| Materials for Introduction Pack (per customer) | 1.60 | 1.22 |
| Initial Investment Costs | 2,225,000 | 924,000 |

The price for the service is consistent across Europe, set at 15 Euros per month. Based on this selling price, Lukas anticipates having approximately 27,000 customers per month in Italy and 21,500 customers per month in Spain. For both options, this would be expected to continue for 5 years when the investment would be reviewed and a decision made on whether to establish this permanently.

1. Calculate the break-even level of output for both options (4 marks)
2. Calculate the margin of safety for both options (2 marks)
3. Demonstrate the break-even point graphically for both options (8 marks)
4. Calculate the payback period for both options (4 marks)
5. Calculate the average rate of return and net present value at a discount factor of 8% for both options (4 marks)
6. Evaluate which option Lukas should choose (10 marks)