**2.1 Economic feasibility study**

• Purpose for assessing economic feasibility is to identify the financial benefits and costs associated with the development project.

• Economic feasibility is often referred to as cost benefit analysis

**Financial benefits:**

In our Pets clinic System we are assuming that monetary benefits of our management system at (9,000$) per year

And the one time costs of (10,000$) and the recurring costs of (4,000$) a discount rate of 10 percent we are going to calculate the financial benefits through 5 years.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Year of Project | | | | | | | |
| - | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total |
| Net economic benefit | 0$ | 9,000$ | 9,000$ | 9,000$ | 9,000$ | 9,000$ |  |
| Discount rate (10%) | 1.0000 | 0.9091 | 0.8264 | 0.7513 | 0.6830 | 0.6209 |  |
| PV of benefits | 0$ | 8,181.9$ | 7,437.6$ | 6,761.7$ | 6,147$ | 5,588.1$ |  |
| NPV of all benefits | 0$ | 8,181.9$ | 15,619.5$ | 22,381.2$ | 28,528.2$ | 34,116.3$ | 34,116.3$ |
|  |  |  |  |  |  |  |  |
| One time cost | (10,000$) | | | | | | |
| Net economic cost | 0$ | 4,000$ | 4,000$ | 4,000$ | 4,000$ | 4,000$ |  |
| Discount rate (10%) | 1.0000 | 0.9091 | 0.8264 | 0.7513 | 0.6830 | 0.6209 |  |
| PV of cost | 0$ | 3,636.4$ | 3,305.6$ | 3,005.2$ | 2,732$ | 2,483.6$ |  |
| NPV of all cost | 10,000$ | 13,636.4$ | 16,942$ | 19,947.2$ | 22,679.2$ | 25,162.8$ | 25,162.8$ |
|  |  |  |  |  |  |  |  |
| Overall NPV | 8,953.5$ | | | | | | |
|  |  |  |  |  |  |  |  |
| Overall ROI | 0.35 | | | | | | |

**Break Point analysis:**

• A type of cost-benefit analysis to identify at what point (if ever) benefits equal costs.

* Yearly PV cash flow= Yearly PV(benefit) – Yearly PV(cost)
* Yearly overall NPV cash flow = Yearly NPV(benefit) – Yearly NPV(cost)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Year of Project | | | | | | |
| - | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Yearly PV cash flow | 10,000$ | 4,545.5$ | 4,129$ | 3,756.5$ | 3,415$ | 3,104.5$ |
| Yearly overall NVP cash flow | 10,000$ | 5,454.5$ | 1,322.5$ | 2,434$ | 5,849$ | 8,953.5$ |

Break-even point =

Breakeven point is 0.35

Actual Breakeven occurred at 2.35383

A graph of a cost benefit and cost

Description automatically generated

2.35