I. Development Cost (DC)

Note:1. The development team estimates this cost.

2. This includes purchases for new equipment.

3. Professional fees and training fees are also included.

New Computer 1 pc. 20,000.00

New Printer 1 pc. 3,000.00

Professional Fees 1 lot 75,000.00

Training Fees 1 lot 1,500.00

---------. ---  **Total** 99,500.00

II. Operating Cost

* 1. Existing Operating Cost (EOC)

Note:1. Must be the actual annual values

2. Gathered through investigation

3. Must show details in a tabular format

|  |  |
| --- | --- |
| Salaries | 450,491.00 |
| Overtime | 62,119.00 |
| Office Supplies | 80,000.00 |
| Maintenance | 6,000.00 |
| Utilities | 28,000.00 |
| **Total:** | 626,610.00 |

B. Proposed Operating Costs (POC)

Note:1. Estimated by the Development Team

2. Unit costs used must be actual costs

3. Should be annual costs

4. Must show details in a tabular format

|  |  |
| --- | --- |
| Salaries | 450,491.00 |
| Overtime | 39,117.00 |
| Office Supplies | 70,000.00 |
| Maintenance | 7,000.00 |
| Utilities | 26,000.00 |
| **Total:** | 592,608.00 |

C. Savings

Sn = EOC – POC = 626,610.00 – 592,608.00

**Sn = P 34,002.00 / year**

Note:

1. Money has time value, so a peso today, a peso a year from now and a peso in five years are not the same. The time value of money is often expressed in the form of the current lending interest rate.

Sn = PV (1+i) n

2. Since savings occur in the future, we need to determine the present value (PV) of the savings in order to compare it with the present value of the investment.

PV = Sn / (1+i) n

Where: PV = Present Value

Sn = Savings for the nth year

i = Annual lending interest rate

n = Year of compoundment

D. Comparative Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year  (n) | Savings  (Sn) | Interest (1+i) n | Present Value (PV) | Cumulative PV (CPV) | Mark |
| 1 | 34,002.00 | 1.12 | 30,358.93 | 30,358.93 | X |
| 2 | 34,002.00 | 1.25 | 27,201.6 | 57,560.53 | X |
| 3 | 34,002.00 | 1.40 | 24,287.14 | 81,847.67 | X |
| 4 | 34,002.00 | 1.57 | 21,657.32 | 103,504.99 | √ |
| 5 | **34,002.00** | **1.76** | **19,319.31** | 122,824.3 | √ |

\* Annual Interest rate used = 12%

Note:

• Place a check mark (√) on the year where CPV >= to DC

• There should only be one check mark.

• The check mark signifies that the Development Cost is gained.

E. Pay Back Period (PBP)

PBP = (DC – CPV of the last “X” mark / PV of the “√” mark) + number of “X” marks

PBP = (99,500.00 - 81,847.67 / 19,319.31) + 3

**PBP = 3.91 years**

Note:

• The Pay Back Period is the length of time where the development cost or the investment can be gained back.

• If PBP is equal to 5 years (System’s Life Cycle), then it is said to be Break Even. (No Gain, No Loss)

• It is recommended that PBP should be less than 5 years to justify the economic feasibility of the study.

F. Net Present (NPV)

NPV = CPV of the 5th year – DC

NPV = 122,824.3 - 99,500.00

**NPV = P 23,324.30**

Note:

• NPV is the net gained after the 5th year and after paying back the development cost (inclusive of interest).

• The higher the net gained the higher the profitability.

G. Return on Investment (ROI)

ROI = (NPV/DC) \*100%

ROI = (23,324.3 / 99,500.00) \* 100%

**ROI = 23.44%**