We are doing business with the name of friend’s real estate and we are also

Dealing in the short term and long term of project for our clients but some

Time, we need cheque the project lives its inflows and return on that project

So, we are using different tools of capital budgeting tecniues.one our clients

He is interested to invest in real estate to build houses project for the society

But he is not sure about the time it will take, about how much will be his investment

Will reflect the return and he should done this project or not.so we are providing him

Accurate information about his initial investment in the project which is 800000

**Why we will use capital budgeting techniques?**

the reason we will use capital budgeting technique because are dealing in real

estate projects for many years when we take a project from a client we make

the complete details of that project that either its is beneficial for our clients

or not so that why we use capital budgeting technique and according to thus method

we create a process of analyzing and identifying to interpret that how much time

it will take for its initial cashflows cover the project budget which is deployed in the

initial stage.

Its is a new investment project.

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|  |  |  |  |  |  |  |  |
|  |  | real estate investment | | |  |  |  |
|  |  |  |  |  |  |  |  |
|  | **year** | | **cashflows** |  | **cumulative cashflows** | | |
|  | 0 |  | 800000 | (b) | nil |  |  |
|  | 1 |  | 290000 |  | 290000 |  |  |
|  | 2 | (a) | 291000 |  | 581000 | © |  |
|  | 3 |  | 292000 |  | 873000 |  |  |
|  |  |  | (d) |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

* **Payback period 2+(b-c)/d =2+(800000-581000)/292000=2.75 years**
* **So discount** rate is given is 9 %

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  | |  |  | * **net present value calculation** | | |  |  | I=9% |  |  |  | |  |  |  |  |  |  |  |  |  |  |  | |  | year |  | inflows |  | present values | |  |  |  |  | |  | 1 |  | 290000/ (1.09) \*1 | | 266055 |  |  |  |  |  | |  | 2 |  | 291000/ (1.09) \*2 | | 244928 |  |  |  |  |  | |  | 3 |  | 292000/ (1.09) \*3 | | 225477 |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  | **sum of npv =736461-outflow=736461-800000=-63538** | | | | | | |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |   So as the npv is equal to -63538 its mean npv is negative which mean this project is not acceptable  And because npv is less than zero so this investment in the project will be loss for both the clients and  For our company it means we are paying more.   * **Profitability index**   **Its shows the strength and attractive of a project.**  **Formula =sum of pv of inflows /outflows = 736451/800000=0.92 which is less than one which mean it is less attractive and not acceptable** |  |  |  |  | sum of npv = 736461-outflow=736461-800000**=-63538**  **rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr** | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

* **Internal rate of return**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
| we will use formula of interpolation | | | |  |  |  |  |  |  |
| sum of pvs of inflows at 4.481% which R | | | RL=800155 | |  |  |  |  |  |
| sum of pvs of inflows at 4.498% which Rh | | | | 799898 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| formula of interpolation we gain | | | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| **irr = Rl +(pvl -p.)/pvl-pvh =Ans into (RH-RL) =4.491%** | | | | |  |  |  |  |  |
|  | **4.481%+(800155-800000)/800155-799898 into (4.498%-4.481%) =4.491%** | | | | | | |  |  |

This project is not acceptable because irr is less than required rate of return

* Which is 9 %. Overall

both the company and client should not take this project due negative value

of npv and irr is also less and profitability index is also less than 1.