Module 5 bhs427 health care finance (aug2014-1) capital budgeting (case)

Health & Medicine

Capital Budgeting Capital Budgeting Capital budgeting is the process of selecting the most appropriate project to undertake by a firm depending on its capital expenditure. The common methods used to develop a procedure for making capital budgeting decisions include net present value (NPV), internal rate of return (IRR), profitability index, payback period and return on book value. The results from IRR and profitability index are closely related with NPV, while the payback period and return on book value be considered suboptimal or decision aids (Capital Budgeting, N. D).

The payback period is referred to as the time it takes a firm to recover its initial cash expenditure from the cash inflow it gets from a certain project or investment. Academics usually advocate the NPV method followed by IRR measure. The payback period method serves as a supplementary tool to decision making. The payback period is quite attractive, but its shortcomings make it less practically relevant. Its shortcomings include; the lack of consideration of the time value of money that can influence wrong decision-making and, it also ignores any cash flows which accrue after the payback period. Despite its shortcomings, the payback period method is still used by firms in appraising capital budgeting decisions (Avery, 2011).

The continual use of the payback period by firms and managers implies that there is value realized from its results. Thus, considering a constant growth rate of cash flows the payback period can be calculated by using two main factors of cash flow. The factors are “ the ratio (I) of the initial outlay to the next period projected cash flow, and the projected cash flow growth rate (g)” (Avery, 2011., p. 1). Therefore, if the payback period is negatively associated to g and positively related to the ratio I, the management is at a better

position to evaluate the expenses and gains of a certain project. Money time value can be adjusted via the discounted cash flows.

Payback Period with constant growth and without discounting

This approach suggests that there is an expected constant growth in cash flows; choosing the value of g depends on existing knowledge of the activity and foresight of a firm. The ratio I will be the initial investment divided by 1. The cash flow is also assumed to be growing " at a constant rate of g percent per period." Thus from calculations the payback period (T) is directly proportional to I, and inversely proportional to g. That is; a high value of I imply a high initial investment cost as compared to the projected first period cash flow. Hence, an investor will take a longer time to recover his initial investment. Conversely, a high value of g (growth rate) of the expected cash flow implies that an investor can take a shorter time to recover his initial investment. Thus, using results from T, I, and g correlations investors can be able to determine future cash flows after the payback period (Avery, 2011).

Payback Period with discounting

A major shortcoming of payback period is its lack of account for the time value of money. Therefore, this method takes to correct this by discounting the cash inflows up to the initial investment time. The payback period T tends to be greater than that calculated without discounting. Hence, the initial cash investment takes longer to recover when discounting future cash flows. Thus, the discount rate is regarded as a negative growth rate (Avery, 2011).

Relevance of Payback Period

In conclusion, payback period cannot be regarded as of little practical

relevance since it is continually being used in many firms. Its simplicity in calculations makes it much preferable. The payback method can of use in the estimation of possible risks in a project. There is usually uncertainty in the future cash inflows of a project, and payback period offers a relative method of projecting the certainty of the cash inflows of the project. Also, it is a good tool for firms that are faced with imminent liquidation as it helps in the ranking of projects that would return the initial investment within a short period (Costa, 2010).

References

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