Npv, pi, irr, and payback

Finance

Module The NPV method places an estimated discount over the future cash flows in comparison to the real value in the present time. Itis calculated by adding up all the discounted cash flows and subtracting the investment costs out of it. If the NPV is equal to 0 then the firm will be able to pay off the debts and equity which are made use of when financing a project. NPV has been considered the most reliable method in accessing the profitability of a certain project. The IRR on the other hand is a method that is the most used between the fortune 500 companies. The reason is that it is simple and the percentage representation makes it easier to understand. It is the rate that helps a firm in bringing the NPV equals to 0 by discounting few cash inflows and outflows further (Alessi, 2006). However, this method is not always to be relied on as the cash flow changes are often experienced by a firm. Another method of calculation of capital budgeting is the payback period. It tells the firm, the time span in which the firm can cover up for its cost if investment. However it does not take the real value of money over the years in account. Furthermore, it also does not help the firm in the amounts by which the shareholders wealth will increase and the cash inflows are not taken into account after the cost of investment has been covered. The Profitability Index (PI) of a firm the ration by which the firm can payoff to the investment that is done regarding a project. The projects are easily ranked as a result as the values that are created by each unit are quantified. It is also known as Value Investment Ratio IVIR) (Top of Form

Adair, 2011).

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NPV’s have been considered as the most exact calculator of the firm’s profitability. However, the evaluation of the NPV’s does not tell a firm of the

IRR that each project holds within. A project can have a higher NPV, a smaller safety margin and a smaller IRR! IRR allows the firm in analyzing the cost of capital in comparison to the internal rate of return. However, if the projects cash flow moves from negative to positive every now and then, the firm will experience a number of IRRs making the evaluation of the project difficult and less understandable. Payback provides the firms with the liquidity of a project along with the risk that is involved. If the payback is found as long termed then the earnings of the firm will need to be “ tied up” for quite a long time. Moreover, the chances of the failure in a project will increase.

All of the above provide the firm a different analysis angle on the profitability, risks involved and the liquidity of a firms projects. Therefore, it will be wise for a firm to make use of all the methods mentioned when making capital budgeting decisions. Furthermore, the qualitative factors like taxation should also be considered.

References

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