New project essays example

Introduction

Valuation of projects is a critical task whenever a business wishes to determine the worthiness of a project. This worthiness is measured in financial terms. In valuing the project for MNQ Company, the IRR, MIRR, NPV and payback period will be used. The project will be accepted if the IRR is higher than the discount rate. If IRR is lower than the discount rate, the project will be rejected. On the other hand, it will be accepted if NPV is positive. However, if the NPV turns out as negative, the project will be rejected. This project will be accepted if the MIRR is greater than the cost of capital/ discount rate. If the value of MIRR is less than the discount rate, the project will be rejected. The payback period will be accepted if it is less than or equal to the period which has been set by MNQ. If the payback period is greater than 3 years, the project will be accepted since this is the period within which MNQ Company expects a return from its commitment of funds. This valuation uses all the four measures in order to give a comprehensive and an all-encompassing project valuation for MNQ.

The first valuation tool for MNQ Company is NPV. This is the net present value for this project by MNQ Company. This value will be computed by multiplying the cash flow for each year by its discount factor in order to obtain the present value. All the figures for the present value will be added to get the total present value. The present value of cash outflows will be deducted from the total present value to obtain the NPV. From the results computed in the excel spreadsheet, the NPV for MNQ's project is - $ 149. 50. Based on the NPV criterion, MNQ Company should not undertake the project. This is because the value for NPV is negative. This negative value is an

indicator that MNQ Company will be investing a higher amount of funds than the value from this investment. A loss will be incurred by making an investment into this project.

The second valuation tool for MNQ Company is IRR. These initials stand for internal rate of return. Since the NPV is negative, the rate to be used in computing the IRR must be lower than the initial 10%. A discount rate of 8% will give a value for NPV that is higher than - $ 149. 50. The rate applied for this calculation is 8%. The computation will be conducted in a similar manner to that of NPV. The results indicate a positive NPV of $ 3, 570. In order to obtain the value of IRR, the formula to be used is; LDR + (HDR - LDR) [(NPV of LDR – NPV of HDR)/ NPV of LDR + NPV of HDR]. In this formula, LDR stands for low discount rate while HDR stands for high discount rate. The low discount rate is 8% while the high discount rate is 10%. The result will be obtained as follows; 8% + (10% - 8%) [($ 3, 570 + $ 149. 5)/ ($ 3, 570 - $ 149. 5)] = 10. 17%. From this calculation, a discount rate of 10. 17% will give a zero NPV. Based on the IRR method, the project should be accepted. This is because the rate is above the discount rate of 10%.

The third technique to be applied is the MIRR. These initials stand for Modified Internal Rate of Return. In this case, it is held that each cash flow will be reinvested by MNQ Company at a rate of 10%. In the first year, MNQ Company will invest the cash flow for a period of seven years. The total of terminal, cash flows is $ 74, 703. The modified internal rate of return will be given by the seventh root of the total terminal cash flows divided by the present value of outflows minus 1. The seventh root has been applied since the cash flows for this project are expected over a period of seven years. The

fraction for this equation is $ 74, 703/ $ 35, 000 = 2. 134. The seventh root

for this figure is 1. 114. This implies that MIRR will be 1. 114 – 1 = 0. 114, an

equivalent of 11. 4%. This rate is higher than the discount rate of 10%. This

implies that the project should be accepted since MIRR for this project by

MNQ Company is higher than the discount rate applied by the company.

The final tool for evaluation will be the payback period. This is the period

within which MNQ Company should recover its investment of $ 35, 000. From

the first year of operation, MNQ will recover $ 500. In the second year of

operation, MNQ will recover $ 1, 500. At the end of this year, MNQ will have

recovered a total of $ 2, 000. In the third year, MNQ is expecting to derive $

3, 500 in revenue. At the end of this year, total returns will be $ 5, 500. In

the fourth year, MNQ is expecting to have returns of $ 6, 000. The

cumulative returns to this point will be $ 11, 500. The returns in the fifth year

are expected to stand at $ 10, 000. The total returns will have amounted to a

total of $ $ 22, 500. In the sixth year, MNQ awaits a cash flow of $ 14, 000.

This will give a cumulative cash flow of $ 36, 500. This is the year within

which MNQ Company will recover its investment. However, at the end of the

year, the returns will be above $ 35, 000 by a difference of $ 36, 500 - $ 35,

000 = $ 1, 500. MNQ will, therefore, take less than a year to reach the total

amount of $ 35, 000. The fraction of the amount to be recovered in the sixth

year will be $ 35, 000 - $ 22, 500 = $ 12, 500. The fraction of the year will be

$ 12, 500/ $ 14, 000 = 0. 89. The total of the payback period, based on this

computation, will be 5. 89 years. Based on the payback period criterion, MNQ

should not accept the project since the 5. 89 years is higher than the three

years the company uses as payback cut off period.

Conclusion

Reference

Townsend, C. (2012). How to Value Capital Projects. Capital Budgeting

Techniques, 33-37.