

- Workbook content: 1) Question 1 method (first inflow methods then outflow) then analysis
- 2) Question 2 method and analysis
- 3) Question 3 method (first inflow methods then outflow) and assumption
- 4) conclusion

The timeline used was that Universal swap was making its analysis in 2021 i.e., the base year hence all data given showing the past year was for 2021. The Alterinum is to be introduced in 2022 and will continue till the year 2031. All inflow and outflow are in arrears.

Q1)

Method: Each and everything had been divided into two aspects inflows and outflows. To show the incremental Cash Flow (CF) both aspects of business are calculated wherein one is with the project and another is without the Alterinum project. To show the effect of taking on the project to the business CFs.

Inflow(revenue) – Universal Swap had 3 sources of inflow or benefit if it continued with the project which was participants, new participants and side benefit it received from cost-cutting.

Old participants grew at rates of 5% and 10 % as per their region and while the flat was increased at the inflation of 1.5%. Whereas in without Alterinum it is seen that the growth rate for international is only 8% hence there is lower inflow as the rates are the same.

New participants happen due to the introduction of the pool and had a straightforward rate of growth YoY basis.

Side benefit availed due to the new pool was not actual money coming in but included lower expenses paid hence was considered as an inflow due to its positive benefit or effect on the cash flow of the business

(The sale of machinery another inflow had been considered in outflow and reduced from the total outflow of the 10th year)

Outflow (Expenses)- Universal swap had a sunken cost of 150 million in R&D which it had spent in the base year regardless the project of Alterinum was carried forward or not. Which is an outflow in the base year and included as has direct association to the project

Cost per customer is separate as per the region of the customer and grew at the rate of inflation yoy. So the customer numbers were acquired from when calculation inflow. This outflow is done for both with and without both of them having same cost. Year 0 outflow nor revenue recorded as it doesn't relate to project. So, 30 and 45 million are assumed to be base year value and so are the cost figures assumed to be base year value.

The new participants had cost 60% of international participants cost and multiplied by the participants' figure.

The server currently in use had a capacity of 46 million participants, hence a new server would have to be bought at the time when this number was crossed for international which included both new and old participants. So, in year 3 new server was bought assuming it reached 46 at the end of the year. Server cost in 2021 was 600 had to be adjusted for inflation and increased. This was when the project was included without the project the growth rate was slow for international participants and hit 46 million in year 5 which is when the outflow was recorded assuming that it reached year-end.

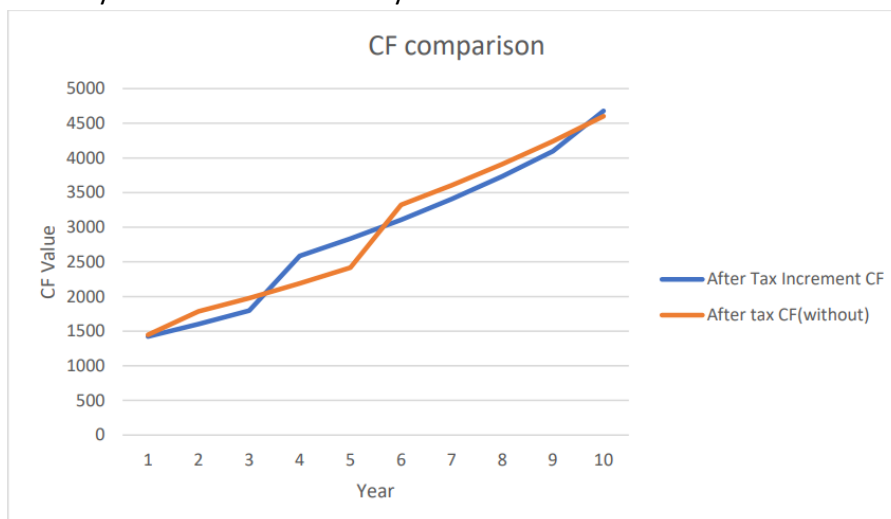
Revenue is assumed to only total flat-rate fees earned every year and not transaction fees. The working capital for next year which was to be invested at the start of the year was calculated as a per cent of the revenue from the previous year. As both with and without had different benefits

Final: The net cash flow of both were inflow less outflow and on which depreciation expense had to be added back of 80 million after which after-tax incremental CF of Alterinum was calculated at a tax rate of 10%. The incremental CF which shows the change in CF due to taking on a project was compared to after-tax CF of not considering the project.

#### Q1 Analysis:

The CF of the universal swap was positive each year regardless the project was taken into consideration or not. But the incremental effect of the project was not very significant and was lower than that too without the project for a while till the last year. This CF could be due to set up costs that occur while introducing the new product to the market and in the long run could give higher CF than without the project as it changed in year 10. Also notice that CF increases significantly whenever a new server is bought (year 3 and year 5).

But only CF is not a concrete way to understand the benefit or effect of the project on the company.



Q2) Method: All the after-tax incremental cashflow were put in a line from year 0 to 10 and NPV at different rates of discount was calculated using the NPV formula of excel. 11% being the actual WACC was showed a positive NPV of 15,646 million.

The IRR was around 139% calculated by using goal seek and setting NPV is equal to 0.

Conclusion: As expected as the discount rate i.e., the WACC increase the NPV decreases showing a decrease in shareholder wealth due to the lower NPV. Hence at the companies estimated 11% WACC rate the project is worthwhile and increase shareholder wealth as it can recover initial investment and give a higher value. The IRR of the project is very high showing that it is ideal for the company to pursue this project as it is much higher than the required rate of return or COC of 11%.

This higher IRR could be due to the industry it operates in and as previously seen how quickly the company M cap increased within 3 years which shows the exponential effect in the line of business the company operates in.

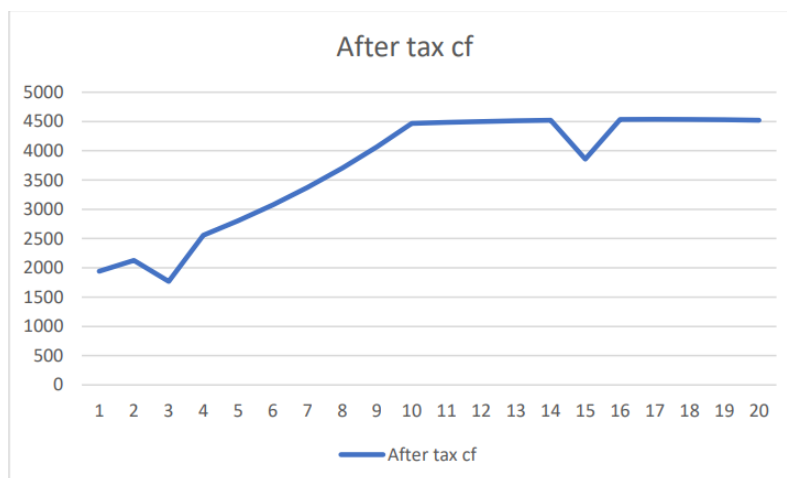
Q3)

To see the effect of running the project longer new after-tax CF has been calculated till the 20th year.

Method and Assumptions: The inflow i.e., the old participants have been assumed to stop growing after the 10th year as the companies' servers have become full, the old pool might have become full and only the cost goes YoY basis. Side benefit also increases at its growth rate till the 20th year

The outflow of R&D is the same and the initial investment remains the same but now the asset has no scrap value and will be depreciated to 0 within 20 years with the depreciation amount of 50 million added back. The cost per unit has been calculated using the participant's numbers from inflow with the cost increasing as per inflation.

Conclusion: The project gives benefit till year 15 after which the cash flows become quite stable. There is a drop in CF whenever there is an investment in servers or assets otherwise there is positive CF throughout. The NPV is also higher at 11% than it was when it only continued till 10 years showing that extending the pool a little while longer is more beneficial and increases more wealth. There is a higher IRR than it was in 10 years also supporting the argument that as life increases of the project the pool generates and becomes an ideal investment



Finally, I believe the company should invest in the project as the IRR which could be attributable to the industry is significantly higher than that of COC also there is wealth creation happening from the project although the project reaches saturation after 15 years with CF becoming stagnant showing that it will be short lives which is like the earlier pool and could also be said about industry and new pool for newer coins have to be created. To make a concrete conclusion the company should compare the IRR to that of other companies' projects of the same industry to understand whether this healthy and good investment. But with the above figure, the project seems to be great as it adds to shareholder wealth