Accounting for Financial and Managerial Decision and Control [AFMDC]

Unit 9
Managerial Accounting for Decision Making: Lease or Purchase Decision

Structure

- Decision regarding to Lease or Purchase

After the completion of this unit, you should be able to:

- Understand the concept of lease and purchase
- Make decision regarding to: Lease or purchase

7.1 Concept of Lease or Purchase

Buy or not to buy? That is the question, when the new capital-intensive equipment is needed. There are different methods for acquiring the required equipment through rent, lease or buy. All the available options, such as, rent, lease and buy are required to investigate for identifying the financially benefited best alternative.

Option First – Rent out Equipment

Should a company rent out the required equipment? To answer this question, the first query that should be thought is, how long does the company need equipment. If the need of equipment is for a short period of time (say a week or month), then renting is probably the best option.

When to rent?

- Very short-term use
- Do not want to invest thousands of rupees in a new piece of equipment and the rent cost is negligible compared to the long-term cost of buying
- Seasonal use

Advantages of Renting

i. Flexibility

There is more flexibility in long-term renting in compare to leasing option. In long-term renting, the payment is made only for what the company used and can return unused equipment at any time. In addition, when renting, the company can move equipment from one facility to another as use demand. Equipment transfer is not allowed in leasing.

ii. Pay for Use

Under renting, it does not include an agreed upon period of using. So only the payment for time use is sufficient which is opposed to leasing.

iii. Improved Borrowing Capacity
Rentals increase our borrowing power by offering a better ratio of assets to liabilities.

iv. No Maintenance Cost
The rental agreement generally covers full maintenance costs of the equipment.

v. No Hidden Costs
As long as the equipment is returned undamaged, the only cost is for its rental.

vi. No Taxes
Property taxes and license costs do not apply to rental equipment.

vii. State-of-the-art Equipment
The chances of availability of most current equipment are most possible in renting.

Option Second – Lease Equipment
Lease is an alternative to rent and buy capital equipment. Usually, high capital-intensive assets have leases for a long-time period, for example, aircraft, electrical power plants, agriculture land. A lease is a contract whereby the owner of an asset grants to another party the exclusive right to use the asset for an agreed period of time. Every lease involves two parties. The user of the asset is called the lessee. The lessee makes periodical payments (known as lease rent) to the owner of the asset, who is called the lessor.

Lease agreements are of basically two types- operating and financial leases. Operating leases are short-term (shorter than the expected useful life of the equipment) and cancellable with proper notice during the contract period at the option of the lessee. Financial leases are long-term (extend over most of the expected useful life of the equipment) and cannot be cancelled or can be cancelled only if the lessor is reimbursed for any losses.

Advantages of Leasing

i. Tax Benefit
Lease rent is considered as tax deductible overhead expenses. Therefore, the lease payment amount will reduce tax.

ii. Improved Borrowing Capacity
If a company buys the equipment, the company needs to pay during the time of purchase. In such situations, companies need to pay cash or borrow loans from financial institutions. It reduces the cash balance of the company or increases debt, which makes the company reduce the company's borrowing capacity. On the contrary, under leasing, lease equipment does not need to borrow loan and initial cash payment, it makes the company more attractive to traditional lenders.

iii. Immediate Write-off Amount Spent
Equipment does not need to be depreciated and carried as a contra asset for the next several years.

iv. Reduced Maintenance Costs
A lease generally forces the company to get new equipment at the end of the leasing period, thus avoiding the expensive maintenance costs that are often associated with equipment that is kept past its useful life.

v. Amount Saving
Generally, lease payments are lower than loan payment. Since, the lessee is only paying for the useful life of the equipment not ownership.

vi. Source of Finance
Leasing is the method of acquiring the right to use equipment without bank financing and initial cash payment. So, leasing can be termed as a collateral free source of finance.

vi. Technology Obsolescence Advantage
Leasing is most suitable where the chances of technology obsolescence is high.

Option Third – Buy Equipment
There are definitely advantages to buying.

Advantages of Buying

i. Tax Advantages
There are tax advantages to buying, as well, since depreciation on assets is deducted directly from net income. Then taxable income becomes lower, reducing the amount of tax due. If buying is made by borrowing instead of cash payment, additional tax advantages can be obtained against the interest expenditure.

ii. Resale and Trade-in
Equipment can be resold or traded in toward the purchase of new equipment. Additionally, purchased equipment can be pledged for financing.

iii. Price Breaks
There is considerably more room for negotiation when buying as opposed to renting or leasing.

Evaluation of Lease or Buy
This section discusses on the lessee's viewpoint on financial evaluation of lease. Immediate payment of purchase price is required to pay to supplier if the decision is made for buying of equipment. For such, the company should have sufficient cash balance in hand. If not, the company has to raise through equity share capital or borrowing loan from financial institutions. If equipment is leased rather than purchased then the company can save lump sum payment of cost of purchase but lease rent is agreed to pay over the period of lease. It will constitute a fixed charge like interest payable on borrowing.

To evaluate lease or buy alternatives, it is necessary to analyze the following financial factors:

- The initial payment required in the case of outright purchase.
- The scrap value of the owned equipment at the expiry of the period of lease.
- The total amount payable over the period of lease i.e. periodical rental obligation. Lease rent payable time whether at the beginning or end of the period.
- The tax rate and cost of capital after tax.
- The capital allowances (or investment allowance/rebate) on the equipment purchase.
- The risk involved in the alternatives.
- The impact on the credit status.

From the lessee's point of view, it has to be seen as to which of the two alternatives is more economical. That can be ascertained by the net present value of cash outflow of the alternatives. The following steps are involved:

Step 1
Determine the cash flow after tax for each year under the lease alternative as under
Lease rent payment × (1 – Tax rate)

Step 2
Determine the cash flow after tax for each year under the buying alternative as under
If cash purchase
Cash value – [Depreciation × (1 – Tax rate)]
If borrowing purchase
Gross Loan instalment – [(Depreciation + Interest) × (1 – tax rate)]

Step 3
Compare the present value of cash outflows associated with leasing (step 1) and buying (step 2) alternatives by employing after tax cost of capital.

Step 4
Select the alternative with the lower present value as under:

Present Value	Condition		Decision
PV of net cash outflows under leasing alternative	>	PV of net cash outflows under buying alternative	Buy
PV of net cash outflows under leasing alternative	<	PV of net cash outflows under buying alternative	Lease

Alternatively, we can ascertain the Net advantage to leasing (NAL). If we obtain NAL positive value then it is advantageous to lease and vice-versa which can be calculated as under:

NAL = PV Cost of Buying – PV Cost of Leasing

Summary for the solution part:
Basic Calculations:

$$\text{Cost of Capital After Tax} = \text{Cost of Capital Before Tax} \times (1 - \text{Tax Rate})$$

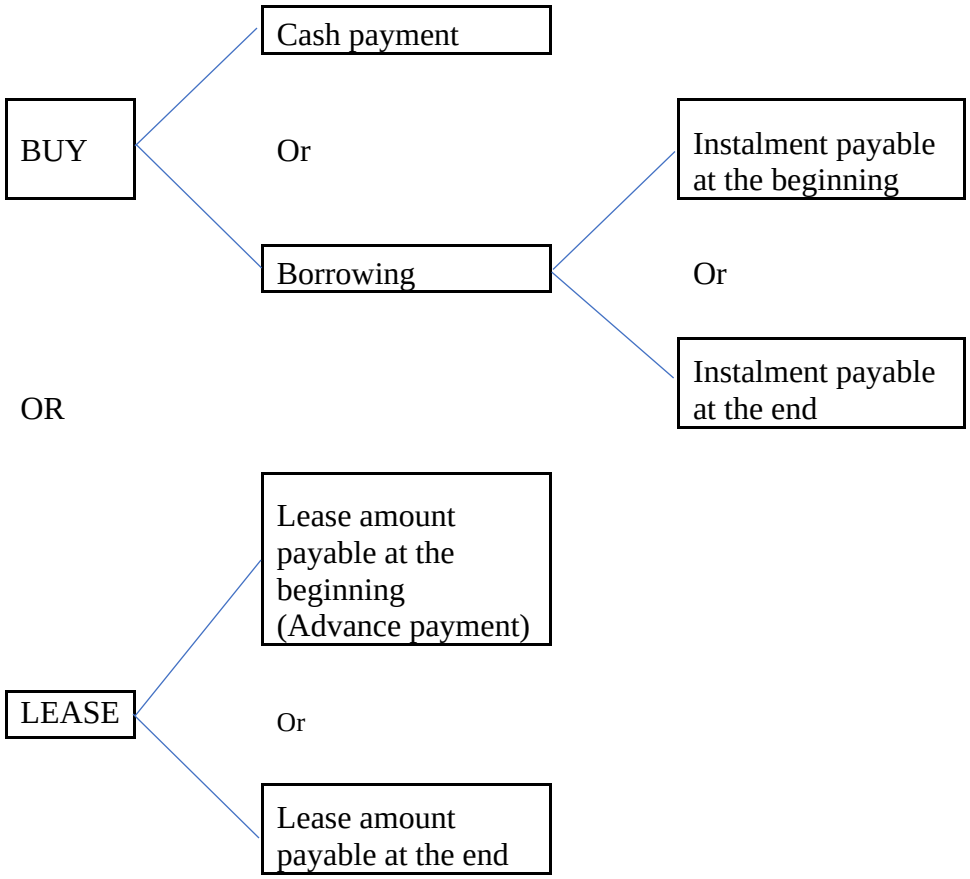
$$\text{Annual Depreciation} = \frac{\text{Cost of Equipment} - \text{Salvage Value of Equipment}}{\text{Life of Equipment (Years)}}$$

We are required to determine the annual bank loan instalment payment. If the instalment payments are to be payable on end of the year, it can be calculated as:

$$\text{Bank Loan Instalment} = \frac{\text{Loan Amount}}{\text{PVIF of Annuity .....\% Interest ....Years}}$$

If the instalment payments are to be paid on in advance, it can be calculated as:

$$\text{Bank Loan Instalment} = \frac{\text{Loan Amount}}{1 + \text{PVIF of Annuity ....\% Interest .... Years}}$$



(Source: Author)

Present Value of Cash Outflows Under Lease Alternative

Year	Lease Payment	Tax Shield @ %	Net Cash Outflows After Tax	PV Factor After Tax %	Total PV of Lease Payment (Rs.)
Col. 1	Col. 2	Col. 3 = col. 2 × %	Col. 4 = col. 2 – col. 3	Col. 5	Col. 6 = col. 4 × col. 5
1					
2					
…..					
Net Cash Outflows Under Leasing Alternative					

Present Value of Cash Outflows Under Buying Alternative

Year	Initial Payment	Depreciation	Tax Shield @ %	Net Cash Outflows After Tax	PV Factor After Tax %	Total PV of Buying (Rs.)
Col. 1	Col. 2	Col. 3	Col. 4 = Col. 3 × %	Col. 5 = Col. 2 – Col. 4	Col. 6	Col. 7 = Col. 5 × Col. 6
1						
2						
….						
….						
					Gross Total	
Less: PV of Salvage Value						
Net Cash Outflows Under Buying Alternative						

NAL = PV Cost of Buying – PV Cost of Leasing

= ……

Decision

If the positive NAL or the net present value of total a cash outflow for buying is higher than that for leasing, then it is advantageous to lease the equipment/assets.

If the negative NAL or the net present value of total a cash outflow for buying is lower than that for leasing, then it is advantageous to buy the equipment/assets.

References

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