FINANCIAL MANAGEMENT II
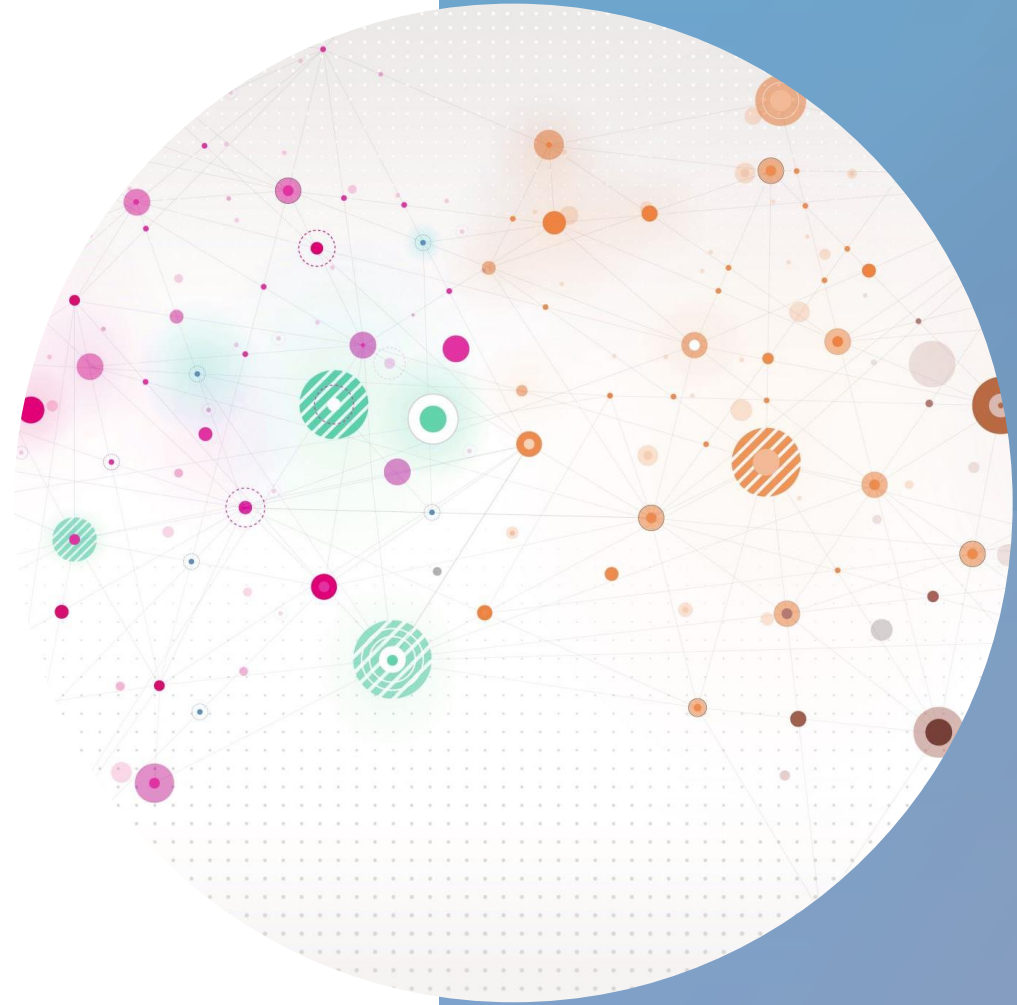
WEEK 4: TIME VALUE OF MONEY- EXAMPLES

EXAMPLE-1

- If you deposit $100,000 in a bank account that pays 7 percent interest annually, how much would be in your account after 5 years?

EXAMPLE-2

- How much capital must be deposited in the bank today to yield a total of 1,000,000 TL after a period of three years, given that the bank offers an annual interest rate of 36% with interest compounded annually?

EXAMPLE-3

- You have two options to sell your house: receive 10,000,000 TL today or sell it in two years for 14,500,000 TL. Considering a discount rate of 25%, which option should you choose?

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EXAMPLE-4

A bank has offered your father the following interest rates for an investment of $100,000:

- 13% per annum, compounded annually
- 12% per annum, compounded semi-annually
- 10% per annum, compounded quarterly
- 9% per annum, compounded monthly

Your father knows that you took Financial Management course and would like your assistance in determining which of these offers has the potential to yield the highest amount after one year. Please calculate the final amounts for each option and recommend the best one.

EXAMPLE-5

You are the owner of a landscaping company. Your company needs a truck. When you search for the options for acquiring the truck, two options are recommended. You can either:

- Lease the truck for $9,000 per year for 5 years, with payments made at the end of each year.
- Buy the truck $40,000 that you have to pay today.

At the end of the 5-year period, the truck will have no resale value. If the interest rate your company can earn on its funds is 7 percent, determine which option has lower cost for your company.

EXAMPLE-6

You want to buy a car, and a local bank will lend you 1,000,000 TL. The loan would be fully amortized over 3 years (36 months), and the nominal interest rate would be 36 percent, with interest paid monthly.

- What would be the monthly loan payment?
- Constitute the loan amortization schedule for the first three months.

EXAMPLE-7

Your client is 35 years old and wants to start saving for retirement, with her first payment scheduled to occur one year from now. She plans to save $3,000 each year and you recommend that she invest it in the stock market, which you anticipate will yield an average return of 10 percent annually.

- If she follows your advice, how much money would she have at 65?
- If she plans to retire for 20 years and her investments yield 8% annually, what amount can she withdraw at the end of each year after retirement at each retirement age?