Answer on Question #86349 – Management - Other

Question

A firm has Sh. 3,000,000 debt at 5% interest in its capital structure and the expected annual operation income is sh. 1,000,000 and equity capitalization rate is 10%. Calculate the value of the firm and overall cost of capital.

Solution:

Using the Net Income Method:

The interest expense on debt = 5% *sh. 3,000,000

= sh. 150,000

EBIT (Operating Income) = Sh. 1,000,000

Therefore, Net Income = EBIT –Interest (assume no tax charged as tax rate is not given)

= sh. 1,000,000-sh. 150,000

= sh. 850,000

Equity Capitalization Rate = Net Income/Market Capitalization (Value of the firm)

10% =sh. 850,000/V

Equity Capital =sh. 850,000/0.10

Equity Value of the Firm = shs. 8,500,000

Total Value of the Firm = Debt Capital + Equity Capital

= sh. 3,000,000 + sh. 8,500,000

= Sh. 11,500,000

Overall cost of capital =Operating Profit/Total Value of the Firm

= (sh.1, 000, 000/sh. 11,500,000)*100

= 8.7%

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