EBIT – EPS ANALYSIS

Introduction

* A company has to make 2 important decisions w.r.t wealth maximisation, they are ——
  - Financing decision (Equity | Debt | combination)
  - Investment decision (Assets – generating CF)
* Cash flows generated can be of various types namely ——

Sales	Contribution	EBIT	EBT	EPS
		Operating profit	Distributable profit before tax	Earnings available to ESH.

B/S

FIN	INV
Eq	EBIT
Prf	
Dt	

* The EBIT generated will belong to 4 persons namely

Debt holder	Government	PSH	ESH
Interest	Taxes	Pref. divd	Balance

* Company's can raise funds from any source but business will be done for the favour of ESH.
* But, optimum capital structure will be such a capital structure which gives higher EPS for a given level of EBIT.
* If EBIT of a project is very high, it is better to finance the project by debt because same interest shall be paid for increased EBIT.
* On the other hand, if EBIT is very low, it is best

to have an all-equity financing because, interest cost may lead to loss.

11. **Step 1: Understanding the situation.**

Present

1,00,000 sh @ ₹10 each

= ₹ 10,00,000

New project

₹2,50,000

- Opt-1: Equity
- Opt-2: Debt @ 8%
- Opt-3: Pref @ 8%

Step 2: Calculation of EPS.

Amounts (₹)

Particulars	Equity	Debt	Preference
EBIT	3,12,500	3,12,500	3,12,500
(-) Interest	–	(20,000)	–
EBT	3,12,500	2,92,500	3,12,500
(-) Tax @ 50%	(1,56,250)	(1,46,250)	(1,56,250)
EAT	1,56,250	1,46,250	1,56,250
(-) Pref. div.	–	–	(20,000)
EAESH	1,56,250	1,46,250	1,36,250
÷ NOS	1,25,000	1,00,000	1,00,000
EPS	1.25	1.46	1.36

Step 3: Calculation of EPS if EBIT is ₹75,000.

Amounts (₹)

Particulars	Equity	Debt	Preference
EBIT	75,000	75,000	75,000
(-) Interest	–	(20,000)	–
EBT	75,000	55,000	75,000
(-) Tax @ 50%	(37,500)	(27,500)	(37,500)
EAT	37,500	27,500	37,500
(-) Pref. div.	–	–	(20,000)
EAESH	37,500	27,500	17,500
÷ NOS	1,25,000	1,00,000	1,00,000
EPS	0.30	0.275	0.175

Concept of Indifference point

* Indifference point is a EBIT where EPS under any two plans will be same.
* At the IDP, whether it is all equity financed / debt financed (or) any combination, EPS will be same.

Note: Students should note that, if a question is given on financing a project with various plans and in which EBIT is not given, it is a question on EBIT – EPS indifference concept.

Concept of Financial break-even point

Financial breakeven is a situation where the EPS is exactly '₹0' at a certain level of EBIT. This changes from one plan to another. It is represented by following formula ———

$$FBEP = I + \frac{PD}{1-t}$$

I = Interest in ₹ terms
PD = Preference dividend in ₹ terms
t = tax rate.

12. Step 1: Calculation of no. of. new shares to be issued

Particulars	Option 1 Amt (₹)	Option 3
Amount to be raised	₹ 50,00,000	₹ 25,00,000
Issue price	₹ 25	₹ 50
No. of. shares	2,00,000.	50,000.

Step 2: Calculation of total no. of. shares

Particulars	Option 1 Amt (₹)	Option 3
Existing shares	10,00,000	10,00,000
(+) New issue	2,00,000	50,000
Revised shares	12,00,000	10,50,000

Step 3: Calculation of interest on debentures

Particulars	Option 2 Amt (₹)	Option 3
Principal	50,00,000	25,00,000
Interest @ 16%	8,00,000	4,00,000

Step 4: Calculation of EPS under all 3 option

mounts (₹)

Particulars	ption – 1 100% equity	option – 2 100% Debt	option – 3 50: 50
Existing EBIT	60,00,000	60,00,000	60,00,000
(+) Addl EBIT	40,00,000	40,00,000	40,00,000
Total EBIT	1,00,00,000	1,00,00,000	1,00,00,000
(–) Interest	–	(8,00,000)	(4,00,000)
EBT	1,00,00,000	92,00,000	96,00,000
(–) Tax @ 50%	(50,00,000)	(46,00,000)	(48,00,000)
EAT	50,00,000	46,00,000	48,00,000
NOS	12,00,000	10,00,000	10,50,000
EPS	4.167	4.60	4.57

Comment :- Option 2 is recommended since it is giving a higher EPS.

13. Step 1:- Analysing all the 3 alternatives of funding

Amounts (₹)

Particulars	Option – 1	Option – 2	Option – 3
Required fund	25,00,000	25,00,000	25,00,000
Debt amount	2,50,000	10,00,000	15,00,000
Equity amount	22,50,000	15,00,000	10,00,000

Step 2: MPS expected and interest rate in 3 cases

Particulars	Option – 1	Option – 2	Option – 3
Debt amount	2,50,000	10,00,000	15,00,000
Interest rate	10%	10% + 15%	10% + 15% + 20%
Expected MPS	₹150	₹150	₹125

Step 3: No. of shares to be issued.

Particulars	Option – 1	Option – 2	Option – 3
Equity amt	22,50,000	15,00,000	10,00,000
MPS	150	150	125
New issue	15,000	10,000	8,000

Step 4: Calculation of interest cost

Amt (₹)

Particulars	Option-1	Option-2	Option-3
Debt amount	2,50,000	10,00,000	15,00,000
Interest cost	25,000	1,37,500	2,37,500
	(2,50,000 x 10%)	(2,50,000 x 10%)	(2,50,000 x 10%)
		+ (7,50,000 x 15%)	+ (7,50,000 x 15%)
			+ (5,00,000 x 20%)

Step 5: Calculation of EPS

Amt (₹)

Particulars	Option-1	Option-2	Option-3
EBIT	5,00,000	5,00,000	5,00,000
(–) Interest	(25,000)	(1,37,500)	(2,37,500)
EBT	4,75,000	3,62,500	2,62,500
(–) Tax @ 50%	(2,37,500)	(1,81,250)	(1,31,250)
EAT	2,37,500	1,81,250	1,31,250
÷ NOS	15,000	10,000	8,000
EPS	₹ 15.833	₹ 18.125	₹ 16.406

Plan II is recommended since EPS is more.