

RASHTREEYA SIKSHANA SAMITHI TRUST R V INSTITUTE OF MANAGEMENT CA 17, 26 Main, 36th Cross, 4th T Block, Jayanagar

Bengaluru, Karnataka 560 041

Department of Finance Organized

Certificate Course on Corporate Valuation in Association with Knowledge Varsity

Date: 16th to 20th December, 2019Venue: Computer Lab -3Timing: 02:30pm to 5.30:pm on 17th & 18thSemester & Section/: III B & CNo. of Participant: 55Event Coordinator: Prof. Dileep

Objectives

- To familiarize the students with the standard techniques of corporate valuation 1 MS Excel
- To understand the financial intricacies of the businesses

Flow of the Event

Day 1: (a) Cash Flow and Free Cash Flow Computation and (b) Cash Flow Estimation Day 2: Estimate Cost of Equity, debt and Capital

Day 3: Stock Valuation using discounting of (a) Dividends (Dividend discount model -Free Cash Flow to Firm (FCFF) (c) Free Cash Flow to Equity (FCFE)

Brief Profile of the Resources Person: Prof. Ratan Gupta & Knowledge Varsity:

- About Ratan Gupta

B-Tech Prof. Ratan Gupta, in Computer Science is from IIT а He is also completed Chartered Financial Analyst Program from CFA Institute, USA ar Risk Management Program from GARP, USA. He has worked with Genpact Headstrong) as Domain consultant for Investment Banking and Securities He is an expert in Excel, Financial Modeling and Derivatives. He has been condu program in Christ University for students enrolled in Virignia Commonwealth twinning program. He is the co-founder of Knowledge Varsity.

- About Knowledge Varsity

"Knowledge Varsity is in the space of education consulting and content developmer has a network of highly qualified and experienced faculty both from India as well as fr

Knowledge Varsity faculty have worked with several Universities in USA for collaborati programs in Business Management.

Knowledge Varsity is best equipped to bring the best resources to your benefit."

Outcome Achieved:

Day 1

Student able to compute CFO, CFF, CFI, FCFF and FCFE. They should be able to identify that t changes in the cash balance is equal to sum of the cash flow in the three categories and should able to forecast company's financials.

- 1. Classify Cash flow items as relating to one of the three categories
- 2. Compute Cash flows from operating actives (CFO) using Indirect Method.
- 3. Compute Cash flow from investing activities (CFI)
- 4. Compute Cash flow from financing activities (CFF)
- 5. Compute Free Cash Flows (FCFF and FCFE)
- 6. Using Sales driven model, forecast company's financials and estimate the cash flow items for firm

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Net Income	\$40,250			Income Sti	tement			E L
Adjustments:	Contraction of the	Sales	2000	2001	2002	2003	2004	2005
Noncash adjustment:		COGS	- 1000	1090.00	1188.10	1295.03	1411.58	1638.6
		Employee Cost	-100	-109.00	-118.81	-129.50	-141.16	-153.8
Depreclation	\$6,700	Selling General & Admin expense Interest paid	-50	-54.50	-59.41	-64.75	-70.68	-76.9
Due to Interest Expense	\$8,550	interest earned	5	5.03	6.93	8.88	10.88	12.8
Due to Dividend Received and Interest Earned	(\$4,500)	Depreciation Profit Before Tax (PBT)	-100 324	-126.49	-148.83	-174.39 386.25	-203.61 410.48	-236.9
Due to changes in working capital:			and a state of the	19				444.0
Due to change in accounts receivable	(\$22,943)	Tax Profit Before Tax (PAT)	-150	-134.82 202.22	-144.30 216.46	-184.10 231.15	-164.19	-174.5
Due to change in Inventories	(\$3,468)	Dividend	-69.6	-80.89	-86.68	-92.46	-98.61	-104.7
Due to change in accounts payable	\$7,652	Retained Earnings	104.4	121.33	128.87	138.69	147.77	157.0
Due to change in accruais	\$7,749					-		
Net cash provided (used) by operating activities	\$39,990		2000	Balance She 2001	2002	2003	2004	2005
ter cash provided (ased) by operating activities	303,330	Cash & cash equivalent	80	125.73	173.20	222.07	271.94	322.29
		Accounts Receivable Inventory		76.30	83.17	90.65 116.55	98.81	107.70
nvesting Activities		Fixed Asset		30.10	100.00	110.33	127.04	100.48
Cash used to acquire gross fixed assets	(\$31,264)	At cost Acc Depreciation	1070 -310	1264.8889	1488.2721	1743.9313	2036.1236	2369.6398
Due to change in short-term investments	\$3,700	Net Fixed asset	760	828,40	902.96	-759.71 984.22	-963.32 1072.80	·1200.29 1169.35
Dividend Received and Interest Earned	\$4,500	Total asset	1000	1128.53	1256.25	1413.50	1670.59	1737.83
Net cash provided (used) by investing activities	(\$23,064)	Accounts Payable	60	66.40	71.29	77.70	84.69	92.32
		Customer Advances Debt	20 320	21.80 320.00	23.76	25.90 320.00	28.23	30.77
Financing Activities		Common Stock	450	450.00	450.00	460.00	450.00	450.00
Interest Expense	(\$8,550)	Accum RE L + E	150	271.33	401.20	639.89 1413.50	687.67 1570.59	844.74 1737.83
				1120.000	1200.00	1470.00	1010.00	1101.00
Due to change in notes payable	(\$1,500)	Property of Longitude and Designation of the			and the second second second		and the second second	
Due to change In long-term debt	\$16,349	Fair and the state of the state	h flow from of	2001	2002	2003	2004	2005
Due to change in common stock	\$10,000	Net income		207.22	216.45	201.16	246.29	261.79
Payment of common dividends	(\$10,063)	Adjustments: Noncash adjustment.						
Net cash provided (used) by financing activities	\$6,237	Depreciation Due to Interest Expense		126.49	148.83	174.39	203.61	236.96
		Due to Dividend Received and Into	erest Earned	-5.03	32.00	32.00 -8.88	32.00	32.00
Net increase/decrease in cash	\$23,163	Due to changes in working capital Due to change in accounts recent		-8.30	-6.87	-7.49	-8.18	-8.89
Add: Cash balance at the beginning of the year	\$74,625	Oue to change in Inventories		-3.10	-8.80	-9.62	-10.49	.11.43
Cash balance at the end of the year	\$97,788	Due to change in accounts payat Due to change in customer advar		5.40	5,89 1.96	6.42 2.14	6.99 2.03	7.62
	0011100	Nel cash provided (used) by operat		348.48	382.50	420.11	461.70	607.69
and Barry from an and lines	A00.000			2001	2002	2003	2004	2005
ash flow from operations	\$39,990	Cash used to acquire gross fixed Dividend Received and interest 6		-1\$4.89 5.03	-223.38 6.93	-255.66 8.88	-292.19 10.88	-333.52 12.89
dd: After Tax Interest Cost	\$5,985	Nel cash provided (used) by investi		-189.86	-216.46	-246.78	-281.31	-320.62
inus: Fixed Capital Invesment	(\$31,264)	Car	in flow from F	inancing calculat 2001	2002	2003	2004	2005
		Interest Expense		-32.00	-32.00	-32.00	-32.00	-32.00
CFF	\$14,711	Due to change in long-term debt Due to change in common stock		0.00 0.00	0.00	0.00	0.00 0.00	0.00
		Payment of common dividends Net cash provided (used) by financ	ion activities	-80.89	-86.58 -118.58	-92.46	-98.51 -130.51	-104.71
		of metry statemetry to		Flow Calculation			10	(0) 21-11
ash flow from operations	\$39,990	Total Cash flow (CFO+CFF+CFI) Net cash change		45.70 45.70	47.46	48.87 48.87	49.87 49.87	50.3 50.3
		IS net Cash change = Total Cash F		YES	YES	YES	YES	YES
inus: Fixed Capital Invesment	(\$31,264)	and the second s	Free Cash	Flow Calculation	2002	2003	2004	200
	\$16,349	Cash flow from operations		348.48	382.60	420.1	1 481.7	0 50
dd: Debt Borrowings		Add: After Tax Interest Cost Minus: Fixed Capital Invesment		19.20	-223.38	19.2	6 -292.1	9 -33
	144 8845	FCFF		172.79	178.32	183.6	5 188.7	0 15
inus: Debt Repayments	(\$1,500)							
inus: Debt Repayments	(\$1,500) \$23,575	Cash flow from operations Minus: Froed Capital Invesment Add: Debt Borrowings		348.48 -194.89 0.00	-223.38	420.1	6 -292.1	9 .33

Day 2

Estimate Cost of Equity, debt and Capital: Student able to compute cost of debt, beta, weight c each component and WACC.

1. Estimation of cost of debt from

(a) bond details by computing Yield to Maturity or

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(b) Adding risk premium to Govt. Of India bond

2. Estimation of beta and Market return

3. Estimation of tax rate by computing Effective Tax Rate

4. Estimation of weights for each component from the Balance Sheet

5. Calculate after tax cost of debt

6. Calculate and interpret the cost of equity capital (Retained earnings or internal accruals, using

(a) the capital asset pricing model approach

(b) the dividend discount model approach and

7. Calculate and interpret the cost of equity of NEW capital

Basic Input Data:	Dave and the second
Years to maturity:	20
Periods per year:	2
Periods to maturity:	40
Coupon rate:	8.000%
Par value:	INR 1,000
Periodic payment:	40
Current price	INR 1,100

a. What is the bond's yield to maturity?

Peridodic YTM	=	3.630%
Annualized Nominal YTM	-	7.059%
Effective Annual Rate	=	7.184%

Face Value of Common Shares (in INR)	100
Number of Common Shares issued	450000
Price of Common Stock (in INR)	200
Market Value of Common Stock (in INR)	90000000
Market Value of Common Stock (in INR Lakh)	900
Book Value of Debt (in INR Lakh)	320
Debt premium over book value (in INR Lakh)	20.00%
Market Value of Debt (in INR Lakh)	384
Total Capital (in INR Lakh)	1284
Weight of Equity	70.09%
Weight of Debt	29.91%

	Wd		40.00%			
	We		50.00%			
	Wps	=	10.00%			
Preferred	Dividend	=	6.50			
Prefer	red Price		90.00			
	K _{ps}	-	7.22%			
w _d × A-T r _d	÷	w _e × k _e	+	W _{ps} × K _{ps}	=	WACC
2.9624%	+	5.87%	÷	0.722%	=	9.5531%
	Prefer w _d × A-T r _d	w _e W _{ps} Preferred Dividend Preferred Price k _{ps} w _d × A-T r _d →	We = Wps = Preferred Dividend = Preferred Price kps kps = Wd × A-T rd ≠ We × Ke	w_e =50.00% w_{ps} =10.00%Preferred Dividend=6.50Preferred Price90.00 k_{ps} =7.22% $w_d \times A-T r_d$ \neq $w_e \times k_e$ $+$	w_a = 50.00% w_{ps} = 10.00% Preferred Dividend = 6.50 Preferred Price 90.00 k_{ps} = 7.22% $w_d \times A-T r_d$ + $w_{ps} \times k_{ps}$	w_e = 50.00% w_{ps} = 10.00% Preferred Dividend= 6.50 Preferred Price 90.00 k_{ps} = 7.22% $w_d \times A-T r_d$ + $w_e \times k_e$ + $w_{ps} \times k_{ps}$

Day 3

Stock Valuation using discounting of; (a) Dividends (Dividend discount model - DDM)

(b) Free Cash Flow to Firm (FCFF) (c) Free Cash Flow to Equity (FCFE)

1. Estimate a company's common stock value using

(a) one year holding period DDM

(b) multiple year holding period DDM

(c) Constant Growth Model (or Gordon Growth Model)

(d) Two Stage DDM

(e) Three Stage DDM

II. Estimate a company's common stock value using

(a) single-stage (stable-growth) FCFE model,

(b) two-stage FCFE model, and

(c) three-stage FCFE model

III. Estimate a company's common stock value using

(a) single-stage (stable-growth) FCFE model,

(b) two-stage FCFE model, and

(c) three-stage FCFE model

IV. Identify appropriate model given a company's characteristic

Long-term constant growth in dividends Expected Price	10.0% INR 1,000.00		
Present Value of Dividend Present Value of Expected Price Value of Equity	INR 98.21 INR 892.86 INR 991.07	Expected Price Present Value of Dividend Present Value of Expected Price	INR 2,200.00 INR 201.85 INR 1,964.29
		Value of Equity	INR 2,166.14

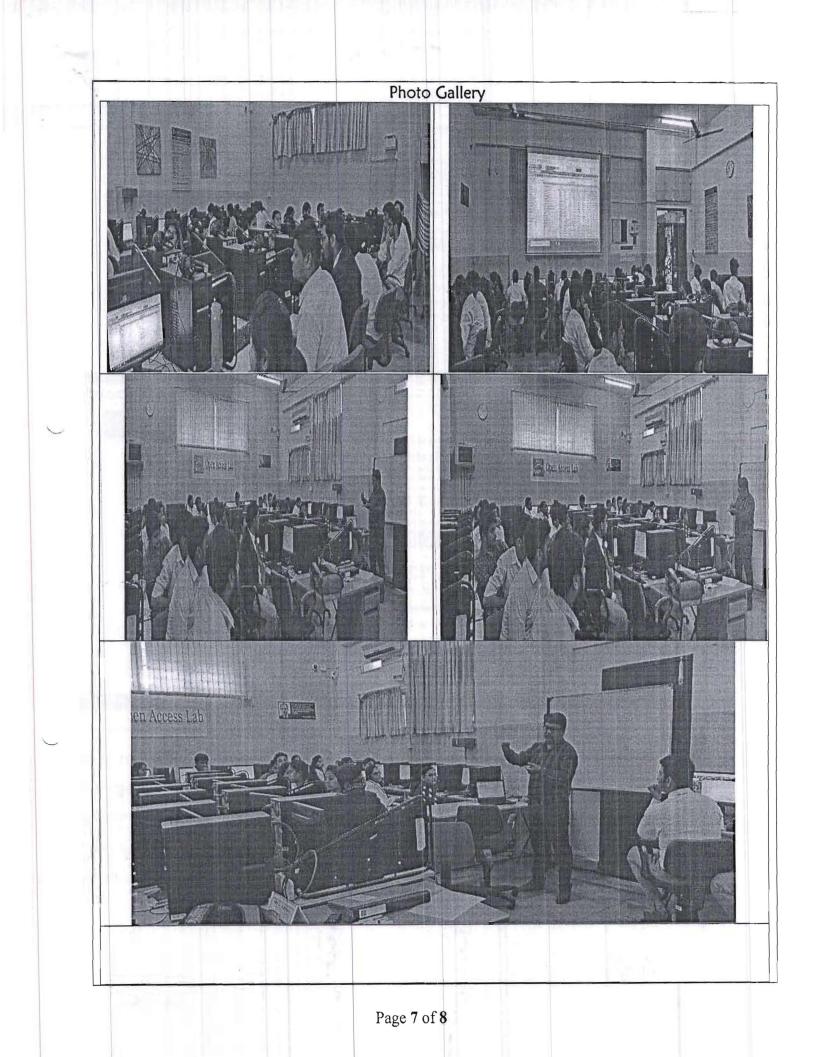
b. Calculate the estimated Year-0 price per share of common equity.

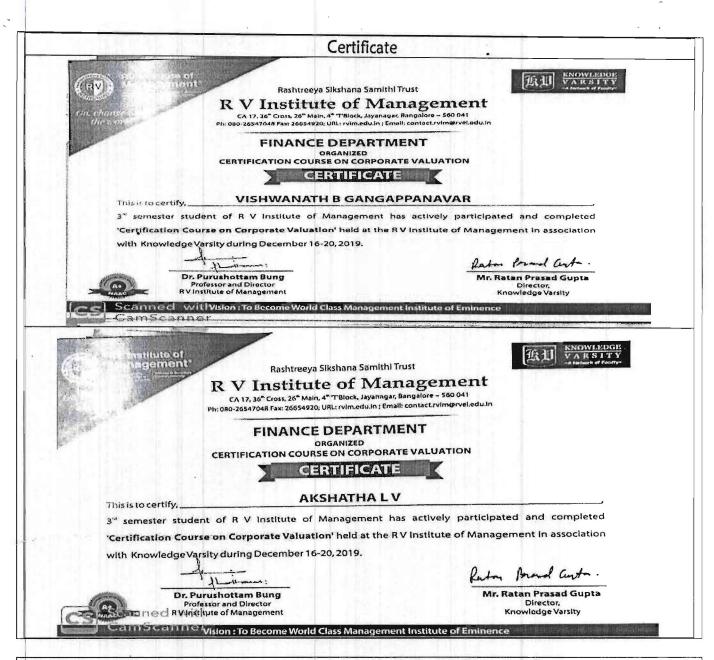
Value of Equity	INR 991.07	b. Calculate the e
Divided by number of shares	40.00	Value of Equity
Price per share	INR 24.78	Divided by numbe

b. Calculate the estimated Year-0 price per share of common equity.

Value of Equity	INR 2,166.14
Divided by number of shares	40.00
Price per share	INR 54.15

a. Calculate the Dividend in	n year 1,2,3 and 4. Calculate	estimated horizon value.	
Dividend Growth Rate for ye Dividend Growth Rate for ye	personal sector of the sector	15% 5%	
		Current * Projected	
		0 1 2	3 4
Dividend Horizon/Terminal value		NR 100.00 INR 115.00 INR 132.25 INR 152	.09 INR 159.69 INR 2,395.38
 b. Calculate the present va of equity 	lue of the horizon value, the	e present value of dividends, and the estimat	ed Year-0 value
PV of horizon value (HV)		R 1,522.31	
PV of dividends Value of Equity (PV of divide		NR 417.85 R 1.940.15	
c. Calculate the estimated)	Year-0 price per share of cor	mmon equity.	
Value of Equity		R 1,940.15	
Divided by number of share Price per share	s	40.00 INR 48.50	
		1144 46.50	
ong-term constant growth in FC	and the second of the second s	PV of horizon value	INR 1,830.21
Iorizon value of FCFF	INR 1,312.50	PV of FCF	INR 463.46
Value of operations	INR 1,312.50	Value of operations (PV of FCF + HV)	INR 2,293.67
o. Calculate the estimated Year-0) price per share of comm	c. Calculate the estimated Year-0 price per	r share of common equity
		Value of operations	INR 2,293.67
Value of operations	INR 1,312.50	Plus value of narketable securities	INR 40.00
Plus value of narketable securitie Total value of company	s INR 40.00 INR 1,352.50	Total value of company	INR 2,333.67
Less value of debt	INR 400.00	Less value of debt	INR 400.00
Less value of preferred stock	INR 50.00	Less value of preferred stock Estimated value of common equity	INR 50.00 INR 1,883.67
Estimated value of common e	Contract of the Contract of th	Divided by number of shares	40.00
Divided by number of shares	40.00	Price per share	INR 47.09
Price per share	INR 22.56		
		a filina	
a. Calculate the FCFF in ye	ear 1,2,3 and 4. Calculate esti	imated horizon value.	
FCFF Growth Rate for year	rs 1 to 3	15% Free cash flow	
i with Grotter Funce (Of Feat		5% Horizon value	
FCFF Growth Rate for year	rs > 3		
		Current Projected	
FCFF Growth Rate for year		0 1 2	3 4
FCFF Growth Rate for year Free cash flow			4 INR 79.85
FCFF Growth Rate for year		0 1 2	
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v		0 1 2	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value		0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v	alue of the horizon value, the	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF	alue of the horizon value, the	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 e present value of the free cash flows, and the	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value	alue of the horizon value, the	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 e present value of the free cash flows, and the R 1,484.83	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF Value of operations (PV of	alue of the horizon value, the	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 e present value of the free cash flows, and the R 1,484.83 INR 223.69 R 1,708.52	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF Value of operations (PV of	alue of the horizon value, the IN FCF + HV) Year-0 price per share of cor	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 e present value of the free cash flows, and the R 1,484.83 INR 223.69 R 1,708.52	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF Value of operations (PV of c. Calculate the estimated	alue of the horizon value, the IN FCF + HV) Year-0 price per share of cor	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 e present value of the free cash flows, and the R 1,484.83 INR 223.69 R 1,708.52 mmon equity. R 1,708.52 R 1,708.52 R 1,708.52 R 1,708.52 R 1,708.52	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF Value of operations (PV of c. Calculate the estimated Value of operations	alue of the horizon value, the INI FCF + HV) IN Year-0 price per share of cor ecurities INI	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 e present value of the free cash flows, and the R 1,484.83 INR 223.69 R 1,708.52 mmon equity. R 1,708.52	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF Value of operations (PV of c. Calculate the estimated Value of operations Plus value of narketable so Total value of company Less value of debt	alue of the horizon value, the IN FCF + HV) Year-0 price per share of cor ecurities y IN IN IN IN IN IN IN IN IN IN	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 a present value of the free cash flows, and the INR 223.69 INR 223.69 R 1,484.83 INR 223.69 INR 1,708.52 mmon equity. R 1,708.52 INR 40.00 R 1,748.52 INR 400.00 INR 400.00	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF Value of operations (PV of c. Calculate the estimated Value of operations Plus value of narketable so Total value of company Less value of debt Less value of preferred st	alue of the horizon value, the FCF + HV) IN Year-0 price per share of cor ecurities y IN took	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 a present value of the free cash flows, and the INR 223.69 INR 1,484.83 R 1,484.83 INR 223.69 INR 1,708.52 mmon equity. R 1,708.52 INR 40.00 R 1,748.52 INR 400.00 INR 400.00	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF Value of operations (PV of c. Calculate the estimated Value of operations Plus value of narketable so Total value of company Less value of debt Less value of preferred sto Estimated value of com	alue of the horizon value, the FCF + HV) IN Year-0 price per share of cor ecurities y IN took mmon equity IN	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 a present value of the free cash flows, and the INR 223.69 INR 1,484.83 R 1,484.83 INR 223.69 INR 1,708.52 mmon equity. R 1,708.52 INR 40.00 R 1,748.52 INR 400.00 INR 400.00 INR 60.00 R 1,298.62 INR 40.00	4 INR 79.85 INR 2,095.96
FCFF Growth Rate for year Free cash flow Horizon value b. Calculate the present v 0 value of operations. PV of horizon value PV of FCF Value of operations (PV of c. Calculate the estimated Value of operations Plus value of narketable so Total value of company Less value of debt Less value of preferred st	alue of the horizon value, the FCF + HV) IN Year-0 price per share of cor ecurities y IN tock mmon equity IN es	0 1 2 INR 50.00 INR 57.50 INR 66.13 INR 76.0 a present value of the free cash flows, and the INR 223.69 INR 1,484.83 R 1,484.83 INR 223.69 INR 1,708.52 mmon equity. R 1,708.52 INR 40.00 R 1,748.52 INR 400.00 INR 400.00	4 INR 79.85 INR 2,095.96





Coordinators Comment:

This particular program is very much enjoyed by all the students this is also part of finance specialization subject of Corporate Valuation and Restructuring syllabus. The program is also helped for those who wish make their career in valuation specially usage of MS excel (spread sheet) for financial modeling. Students got a fair idea about the valuing a company and equity share. Overall this Certificate Course on Corporate Valuation in Association with Knowledge Varsity was great success.

Event Coordinator

Director