Case Study 12: Comparable Transactions Method

Valuation of Logistics Startups XYZ Ltd. and ABC Ltd.

Step 1: Gather Information

- XYZ Ltd.: Acquired for Rs 560 crores with 24 crore active users (Rs 23 per user).
- ABC Ltd.: Currently operating with 1.75 crore users.

Step 2: Determine the User Valuation Multiplier

To account for differentiating factors, we will consider the following valuation multipliers based on their business characteristics:

1. Industry Penetration Multiplier: 0.75

(ABC Ltd. has a lower market penetration compared to XYZ Ltd.)

2. Proprietary Technology Multiplier: 1.5

(ABC Ltd. has developed unique and advanced logistics technology compared to XYZ Ltd.)

3. Intangible Assets Multiplier: 1.25

(ABC Ltd. has strong brand recognition and customer loyalty compared to XYZ Ltd.)

4. Locational Advantage Multiplier: 1.2

(ABC Ltd. operates in a region with higher demand for logistics services compared to XYZ Ltd.)

Use the above data to calculate the value of ABC Ltd. under the comparable transactions method

Case Study 13: Scorecard Valuation Method

Valuation of Pre-Revenue Startup "Finova"

The following information relates to a new startup Finova which has not started generating revenue:

Gather Information

- "Finova" is a pre-revenue technology startup in the software industry.
- We have identified five comparable startups in the same industry that have been funded and have valuation data available.
- The average pre-money valuation of these comparable startups is Rs 50 crores.

Now, let's assess how "Finova" stacks up against the comparable startups in terms of the following qualities and assign comparison percentages:

1. **Strength of the Team**: 120% (Finova's team is highly experienced and has a strong track record).
2. **Size of the Opportunity**: 90% (Finova's market opportunity is slightly below average compared to its peers).
3. **Product or Service**: 110% (Finova's product has unique features and is more advanced than competitors).
4. **Competitive Environment**: 80% (Finova faces strong competition, which is slightly above average compared to its peers).
5. **Marketing, Sales Channels, and Partnerships**: 130% (Finova has established strategic partnerships and strong marketing efforts).
6. **Need for Additional Investment**: 70% (Finova requires higher additional investment compared to competitors).
7. **Others**: 100% (Finova's performance is average in other relevant criteria).

The weights to be given to each of the above factors as prescribed under the scorecard approach a given below:

- Strength of the team: 30%
- Size of the opportunity: 25%
- Product or service: 15%
- Competitive environment: 10%
- Marketing, sales channels, and partnerships: 10%
- Need for additional investment: 5%
- Others: 5%

Find the value of Finova under the scorecard approach

Case Study 14: Berkus Approach

Valuation of Startup "EduQuest"

EduQuest is an Ed-tech startup and needs to be valued using the Berkus Approach under two different situations:

Situation 1: It is in the pre-revenue stage

Situation 2: It is in the post-revenue stage

Step 1: Identify the Five Key Success Factors

1. **Basic Value: Rs12crore**
   (This represents the fundamental value of the startup, considering factors like the team, concept, and initial progress.)

2. **Technology: Rs 1.5 crores**
   (The proprietary technology or intellectual property held by the startup.)

3. **Execution: Rs 80 lakhs**
   (Assessing the capability of the team to execute the business plan effectively.)

4. **Strategic Relationships: Rs60 lakhs**
   (The value derived from partnerships and collaborations in the startup's core market.)

5. **Production and Sales: Rs70 lakhs**
   (The value attributed to the ability to generate and fulfill customer orders.)

Step 2: Calculate Total Value from Key Success Factors

Total Value = Basic Value + Technology + Execution + Strategic Relationships + Production and Sales
Total Value
= Rs 12 crore + Rs 1.5 crores + Rs 0.8 crores + Rs 0.6 crores + Rs 0.7 crores = Rs15.6 crores

Step 3: Apply Valuation Caps

Since the Berkus Approach caps pre-revenue valuations at $2 million and post-revenue valuations at $2.5 million, let's convert these caps to the local currency (assuming 1 USD = Rs 75):

- Pre-revenue valuation cap = $2 million x Rs 75 = Rs 15 crores
- Post-revenue valuation cap = $2.5 million x Rs 75 = Rs 18.75 crores

Step 4: Final Valuation –

Situation 1: pre revenue (cap =15crore)

Valuation = 15.6 or 15 whichever is lower = 15 crores

Situation 2: post revenue (cap =18.75crore)

Valuation = 15.6 or 18.75 whichever is lower = 15.6 crores

Case Study 15: Cost to Duplicate Approach

Valuation of Startup "SkillMentor"

Step 1: Gather Information

- "SkillMentor" is a technology startup that has developed a unique software product.
- The startup has incurred the following costs and expenses during its development phase:
- Research and Development (R&D) expenses: Rs 10 crores
- Marketing and Advertising expenses: Rs 5 crores
- Purchase of Physical Assets (computers, office equipment, etc.): Rs 3 crores
- Intellectual Property (IP) registration and legal expenses: Rs 2 crores
- Hiring and Employee Salaries: Rs 8 crores
- Other Miscellaneous Expenses: Rs 1 crore

Step 2: Calculate Total Costs and Expenses

Total Costs and Expenses = R&D + Marketing + Physical Assets + IP Expenses + Salaries + Miscellaneous Expenses

Total Costs and Expenses = Rs 10 crores + Rs 5 crores + Rs 3 crores + Rs 2 crores + Rs 8 crores + Rs 1 crore = Rs 29 crores

Step 3: Determine Fair Market Value

The fair market value of "SkillMentor" using the Cost-to-Duplicate Approach is equal to the total costs and expenses incurred by the startup during its development phase.

Fair Market Value = Rs 29 crores

Step 4: Considerations and Criticisms

While the Cost-to-Duplicate Approach provides a straightforward valuation based on the actual expenses incurred by the startup, it has limitations. This approach does not take into account future revenue projections or the potential value of intangible assets, such as brand reputation, customer relationships, and intellectual property. Thus, it might not provide a comprehensive valuation of the startup's true worth in the market.

Conclusion:

Using the Cost-to-Duplicate Approach, "SkillMentor" is valued at Rs 29 crores, which is based on the total costs and expenses incurred during its development. However, this approach may not fully capture the startup's potential value, as it overlooks future revenue projections and intangible assets, which are crucial factors in determining the actual market worth of the startup.

Case Study 16: QForum

QForum is a startup specializing in developing cutting-edge software solutions. The management team is seeking to determine the fair estimate of the startup's value using the First Chicago Method, which combines the Discounted Cash Flow (DCF) approach and a Relative Value approach.

Discounted Cash Flow (DCF) Approach:

QForum has projected its cash flows for the next five years: Year 1 to Year 5.

The cash flows for three different scenarios (worst-case, normal case, and best-case) are as follows:

Year	Worst-case cash flow	Normal case cash flow	Best-case cash flow
1	$50,000	$150,000	$300,000
2	$60,000	$180,000	$350,000
3	$70,000	$210,000	$400,000
4	$80,000	$240,000	$450,000
5	$90,000	$270,000	$500,000

The probabilities for each scenario are as follows:

Scenario	Probability
Worst-case	0.25
Normal case	0.5
Best-case	0.25

At the end of year 5, the following table provides a forecast of EV/EBITDA ratio for similar firms:

Similar firms	EV/EBITDA ratio
A	8
B	7
C	9.5

Also, EBITDA of QForum forecasted for year 5 under the three scenarios shown below:

Year	Worst-case cash flow	Normal case cash flow	Best-case cash flow
5	$150,000	$350,000	$650,000

Using the DCF approach, calculate the expected cash flows for each scenario, and use the same to compute QForum value, assuming a discount rate of 10%.

Answer:

YEAR	COMPUTATION	CASH FLOW
1	.25×50+.5×150+.25×300	1,62,500
2	.25×60+.5×180+.25×350	1,92,500
3	.25×70+.5×210+.25×400	2,22,500
4	.25×80+.5×240+.25×450	2,52,500
5	.25×90+.5×270+.25×500	2,82,500

Weighted avg. EBITDA = 0.25 × 150000 + 0.5 × 350000 + 0.25 × 650000 = 3,75,000

Average EV/EBITDA = (8+7.5+9)/3 = 8.167

Terminal Value (using relative valuation i.e. EV) = 3,75,000×8.167 = 30,62,625

PV of Cash Flows and Terminal Value

YEAR	CASHFLOW	DF@10%	PV@10%
1	162500	0.909	1,47,713
2	192500	0.826	1,59,005
3	222500	0.751	1,67,098
4	252500	0.683	1,72,458
5	3345125(282500+3062625)	0.621	20,77,323
			27,23,597

Value of QFORUM = 27,23,597

Case Study 17: Exalytics

Exalytics is a startup specializing in developing cutting-edge software solutions. The management team is seeking to determine the fair estimate of the startup's value using the First Chicago Method, which combines the Discounted Cash Flow (DCF) approach and a Relative Value approach.

Discounted Cash Flow (DCF) Approach:

Exalytics has projected its cash flows for the next five years: Year 1 to Year 5.

The cash flows for three different scenarios (worst-case, normal case, and best-case) are as follows:

Year	Worst-case cash flow	Normal case cash flow	Best-case cash flow
1	$50,000	$150,000	$300,000
2	$60,000	$180,000	$350,000
3	$70,000	$210,000	$400,000
4	$80,000	$240,000	$450,000
5	$90,000	$270,000	$500,000

The probabilities for each scenario are as follows:

Scenario	Probability
Worst-case	0.25
Normal case	0.5
Best-case	0.25

After year 5 the cash flows are expected to grow perpetually at 0%,2%,5% respectively under worst, normal, best case scenarios

Question 1:

Using the DCF approach, calculate the expected cash flows for each scenario, and use the same to compute Exalytics value, assuming a discount rate of 10%.

Question 2:

Using Market approach, calculate the value of Exalytics given information about the EV/EBITDA Ratio of 3 comparable firms:

Similar firms	EV/EBITDA ratio
A	8
B	7
C	9.5

Exalytics reported an EBITDA of 2,50,000 for the year just ended.

Question 3:

Calculate Exalytics value using the combination of DCF and Market approach with weights being 75% and 25% respectively.

ANSWER:

Question 1:

YEAR	COMPUTATION	CASH FLOW
1	.25×50+.5×150+.25×300	1,62,500
2	.25×60+.5×180+.25×350	1,92,500
3	.25×70+.5×210+.25×400	2,22,500
4	.25×80+.5×240+.25×450	2,52,500
5	.25×90+.5×270+.25×500	2,82,500

Calculation of terminal value

SCENARIO	CASHFLOW	COMPUTATION	TERMINAL VALUE
WORST	90000(100%) = 90000	90000/10%	900000
NORMAL	270000(102%) = 278100	275400/(0.10-0.02)	34,42,500
BEST	500000(105%) = 530000	5,25,000/(0.10-0.05)	1,05,00,000
		Weighted Avg Terminal Value	45,71,250

PV OF CASH FLOWS AND TERMINAL VALUE

YEAR	CASHFLOW	DF@10%	PV@10%
1	162500	0.909	1,47,713
2	192500	0.826	1,59,005
3	222500	0.751	1,67,098
4	252500	0.683	1,72,458
5	48,53,750(282500+4571250)	0.621	30,14,179
			36,60,453

Question 2:

Average EV/EBITDA = (8+7.5+9)/3 = 8.167

TERMINAL VALUE(using relative valuation i.e. EV) = 2,50,000 × 8.167 = 20,41,750

Question 3:

(0.75× 36,60,453) + (0.25×20,41,750) = 32,55,777