

## STUDENT MANUAL

### Comparable Transactions (Precedent Transactions Method – PTM)

#### Five-Case Teaching Workbook

---

## 1. PURPOSE OF THIS WORKBOOK

This Excel workbook demonstrates how to value a company using the **Comparable / Precedent Transactions Method (PTM)**.

Students will learn:

1. How transaction characteristics affect valuation
2. How to **include or exclude deals logically** using a binary control
3. How to compute **Enterprise Value (EV)** correctly
4. How **Average vs Median multiples** change valuation
5. Why PTM is **judgment-driven**, not mechanical

Each case is implemented as **one complete model in one sheet**, using the **same structure**, so learning transfers across cases.

---

## 2. WORKBOOK STRUCTURE (OVERVIEW)

### Sheets in the Workbook

Sheet Name	Purpose
INDEX	Navigation + overview
CASE_1_ControlPremium_100pct	Control premium from 100% acquisitions
CASE_2_DealSelection_Include01	Deal selection using Include (0/1)
CASE_3_AvgVsMedian_Outliers	Average vs Median multiples
CASE_4_PartialStake_Normalization	Scaling partial stakes
CASE_5_Judgment_Integrated	Integrated PTM with judgment
CHECKS_Summary	Validation dashboard

 Rule:

One case = one sheet = one complete model

---

### 3. COLOR CODING CONVENTION (VERY IMPORTANT)

Students must **follow this color logic:**

Color	Meaning
● Light Blue	<b>Inputs (student editable)</b>
○ Light Grey	<b>Calculations (formulas)</b>
● Light Green	<b>Final outputs / valuation</b>
◆ Dark Blue	Section headers
● Text “FAIL”	Indicates model issue

This makes the model **readable, auditable, and exam friendly.**

---

### 4. INDEX SHEET (Sheet: INDEX)

#### Purpose

- Acts as a **table of contents**
- Enables **one-click navigation** to any case

#### Key Cells

Cell	Description
A1	Workbook title
A3:D3	Column headers (Case, Sheet, Learning Point, Open)
D4:D8	Hyperlinks to each case
A12:C12	Color legend
A14	Student instruction

## How the hyperlink works

Example formula (in D4):

```
=HYPERLINK("#'CASE_1_ControlPremium_100pct'!A1","Open")
```

Students should **not edit formulas** in the Index.

---

## 5. CASE SHEET STRUCTURE (COMMON TO ALL 5 CASES)

Each case sheet follows the **same vertical layout**.

---

### SECTION A — COMPARABLE TRANSACTIONS (INPUTS)

#### Location

- Header: **Row 5**
- Data: **Rows 7–14**

#### Column Structure (Row 6)

Column	Variable	Cell Example
A	Deal Ref	A7
B	Acquirer Name	B7
C	Target Name	C7
D	Deal Type	D7
E	Stake %	E7
F	Deal Value (₹ cr)	F7
G	Revenue (₹ cr)	G7
H	EBITDA (₹ cr)	H7
I	Net Debt (₹ cr)	I7
J	Include? (0/1)	J7

## Formatting rules

- All input cells (A7:J14) → **Blue**
  - Stake % → percentage format (E7:E14)
  - Currency → ₹ with Indian commas
- 

## 6. CORE CALCULATIONS (AUTOMATED)

### Equity Value @ 100% (Column K)

#### Cell K7

=IF(J7=1, F7 / E7, "")

#### 📌 Interpretation

- Scales partial stake deals to **100% equity**
  - If Include = 0 → deal is ignored
- 

### Enterprise Value (EV) (Column L)

#### Cell L7

=IF(J7=1, K7 + I7, "")

#### 📌 Concept

EV = Equity Value + Net Debt

---

### EV / Revenue (Column M)

#### Cell M7

=IF(J7=1, L7 / G7, "")

---

### EV / EBITDA (Column N)

#### Cell N7

=IF(J7=1, L7 / H7, "")

#### 📌 Most important multiple used in valuation.

---

## 7. DEAL SELECTION LOGIC (CORE PEDAGOGY)

**Include column (J7:J14)**

### Value Meaning

1 Deal is included

0 Deal is excluded

Students **control the valuation outcome** by changing this column.

 Teaching insight:

PTM is not “plug-and-play”.

It requires judgment.

---

## 8. SECTION B — DESCRIPTIVE STATISTICS

### Location

- Rows immediately after deal table

### Average EV/EBITDA

#### Cell B(Stats Row +1)

=AVERAGEIF(J7:J14,1,N7:N14)

---

### Median EV/EBITDA

#### Cell B(Stats Row +2)

=MEDIAN(FILTER(N7:N14, J7:J14=1))

 Note (important):

- FILTER() requires **Excel 365 / Excel 2021**
  - If unavailable, instructor will show workaround
- 

### Included Deal Count

#### Cell E(Stats Row +1)

=COUNTIF(J7:J14,1)

---

## 9. SECTION C — TARGET COMPANY VALUATION

### Target Inputs (Blue cells)

**Cell      Variable**

B(Target+2) Target EBITDA

B(Target+3) Target Net Debt

B(Target+4) Shares Outstanding (cr)

👉 These three inputs are sufficient for EV/EBITDA-based PTM.

---

### Valuation Using Average Multiple

#### Implied EV

=Average\_Multiple × Target\_EBITDA

#### Implied Equity Value

=Implied\_EV – Target\_Net\_Debt

#### Price per Share

=Equity\_Value / Shares\_Outstanding

Units cancel naturally:

₹ crore ÷ crore shares = ₹ per share

---

### Valuation Using Median Multiple

Same formulas repeated using **Median EV/EBITDA**.

● Final prices are highlighted in green.

---

## 10. SECTION D — CHECKS (MODEL VALIDATION)

### Check 1 — Minimum Deals

=IF(Count>=3,"PASS","FAIL")

---

### Check 2 — No Division Errors

=IF(COUNTIF(N7:N14,"#DIV/0!")=0,"PASS","FAIL")

---

### Check 3 — Stake Sanity

Ensures included deals have valid stake %.

---

### Case Status

=IF(AND(Check1="PASS",Check2="PASS",Check3="PASS"),"PASS","FAIL")

 Students must **never submit a model with FAIL status.**

---

## 11. CHECKS SUMMARY SHEET

### Purpose

- One-page audit of **all five cases**

### What it pulls

- Included deal count
- Average multiple
- Median multiple
- Case status

All values are **linked**, not duplicated.

---

## 12. NAVIGATION & USABILITY

- Every case sheet has:
  -  **Back to INDEX** at top-right
  -  **Back to INDEX** at bottom
- Freeze panes applied below headers
- Column widths optimized for readability
- Comments (sticky notes) explain:
  - Equity scaling
  - EV logic

- Include (0/1)
  - Median calculation
- 

### 13. WHAT STUDENTS SHOULD NEVER DO

- ✗ Hard-code numbers in calculation cells
  - ✗ Delete formulas
  - ✗ Change color conventions
  - ✗ Mix inputs and outputs
  - ✗ Ignore FAIL checks
- 

### 14. WHAT STUDENTS SHOULD BE ABLE TO EXPLAIN

1. Why some deals are excluded
2. Why median  $\neq$  average
3. Why EV is used instead of equity
4. Why PTM includes control premium
5. How judgment affects valuation