Excel vs Power BI DAX — Formula & Filter Flow

Yeh note un learners ke liye hai jo Excel se Power BI DAX mein transition kar rahe hain, aur unhe filtering aur formula behavior ka difference clearly samajhna hai.

# 🔹 Excel Approach

Excel mein jab hum kisi table par formula lagate hain jaise ki:  
  
 =SUM(Sales[Amount])  
  
Toh yeh formula \*\*visible rows ka total\*\* deta hai. Agar aap slicer ya filter lagate ho, toh woh table ki rows ko filter kar deta hai aur formula unhi filtered rows ka sum return karta hai.  
  
\*\*Important Point:\*\* Excel ke formulas slicers ke context ko nahi samajhte — woh bas jo visible rows hain un par kaam karte hain.

# 🔸 Power BI DAX Approach

Power BI mein DAX formula likhne ka syntax similar hota hai:  
  
 Total Sales = SUM(Sales[Amount])  
  
Lekin yahaan \*\*Filter Context\*\* ka concept aata hai. Matlab:  
 - Table puri ki puri hoti hai (filtered nahi dikhti like Excel)  
 - Lekin DAX formula apne aap samajh jaata hai ki filter/slicer kya laga hai,  
 aur uske according woh apna result update kar deta hai.  
  
\*\*Yeh behavior hi DAX ko dynamic banata hai.\*\*

## 🔍 Excel vs Power BI DAX Comparison

|  |  |  |
| --- | --- | --- |
| Aspect | Excel | Power BI (DAX) |
| Formula | =SUM(Sales[Amount]) | Total Sales = SUM(Sales[Amount]) |
| Before Filter | 1,00,000 (All regions) | 1,00,000 (All regions) |
| After Filter (Region=North) | 20,000 (Visible rows only) | 20,000 (Filtered context) |
| Formula Reaction | Same formula, unaware of slicer | Same formula, result changes with filter |
| View | Filtered rows only | Full table, filtered result |

# 🎯 Summary

👉 Excel: Data pehle filter hota hai, formula wahi rehta hai.  
👉 Power BI DAX: Formula wahi rehta hai, lekin result filter ke hisaab se auto-update hota hai.  
  
📌 Isiliye DAX zyada flexible hai jab baat aati hai dashboards aur dynamic visuals banane ki.