

# Financial Service and Information System

Roshan Raj Ramesh (rrr13)

209030158

# Mathematical Formulas

- PRODUCT A

$TCO = [(A1+A2+A3)*no. \text{ of users}] + [(A4+A5+A6)*no. \text{ of CPUs}] + [30\% \text{ of } (A4+A5+A6)*no. \text{ of CPUs}] + (H/W \text{ cost}) + (10\% \text{ of } H/W*(no. \text{ of years}-1)) + (18\% \text{ of License cost} * (year-1)) + \text{Implementation Cost} + (15\% \text{ of Implementation Cost} * year-1*no. \text{ of CPUs})$

- PRODUCT B

$TCO = [no. \text{ of users} * \text{Initial license fee}] + [\text{subscription based fee} * no. \text{ of year} * no. \text{ of users}]$

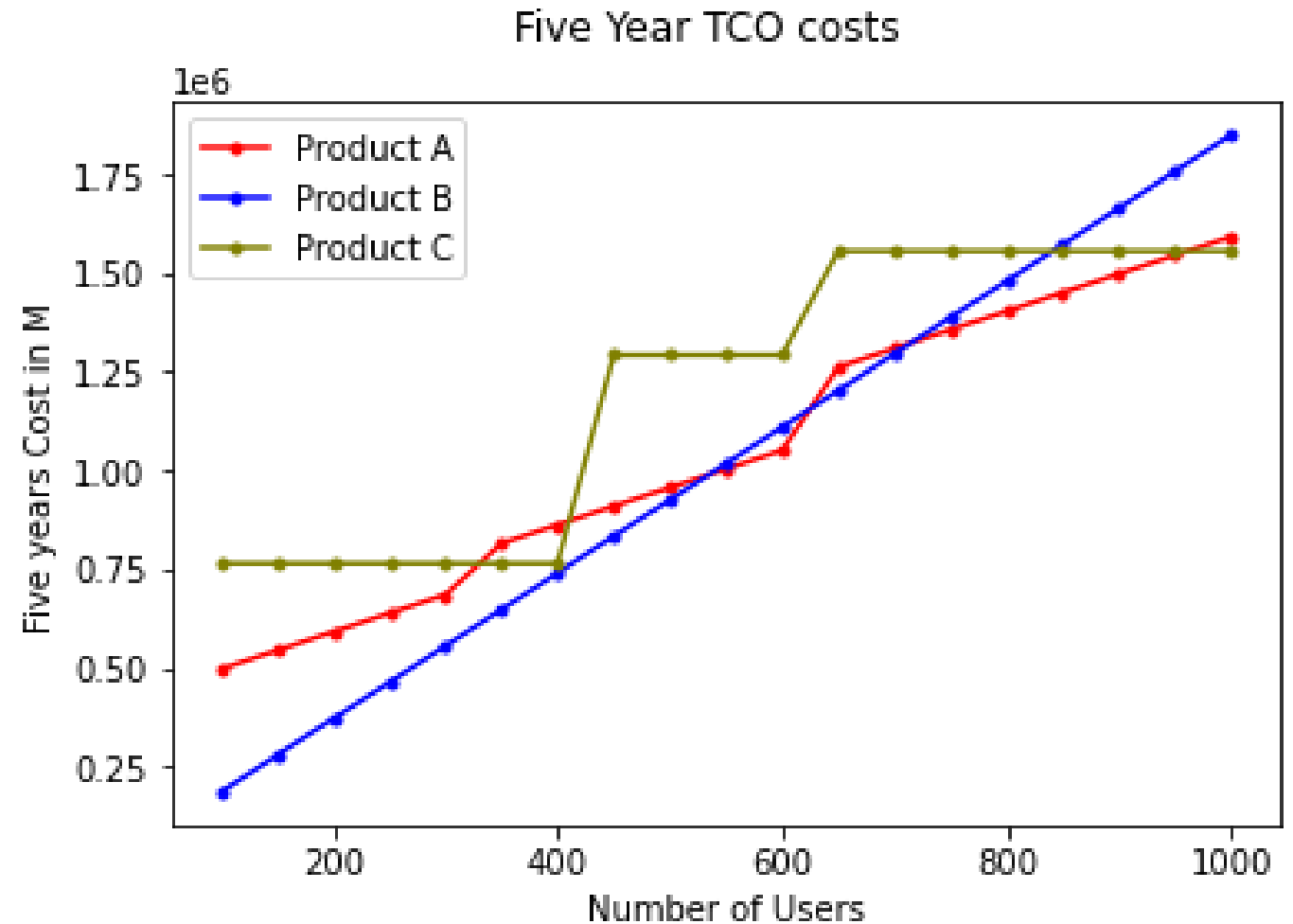
- Product C

$TCO = \text{Implementation cost} + [no. \text{ of cpu} * \text{cost of license subscription} * no. \text{ of year}] + H/W \text{ cost} + (10\% \text{ of } H/W)*(year - 1)*(no. \text{ of CPUs})$

BLUE – OPEX

YELLOW - CAPEX

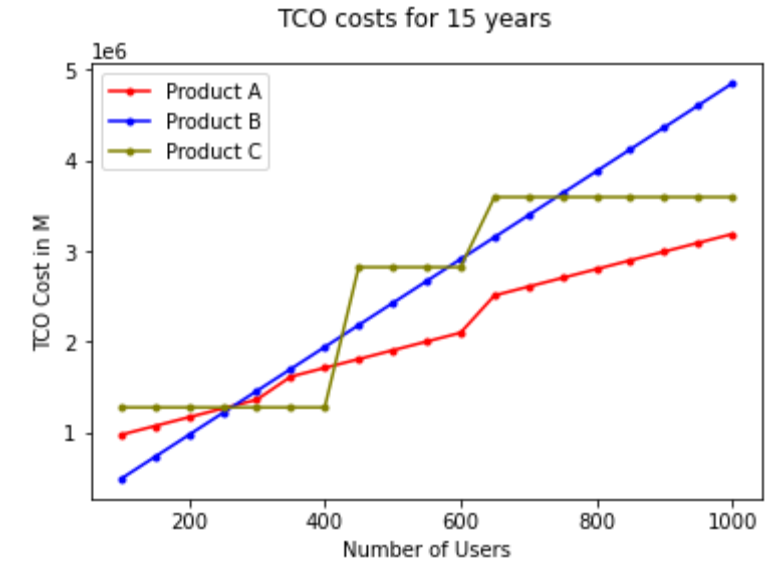
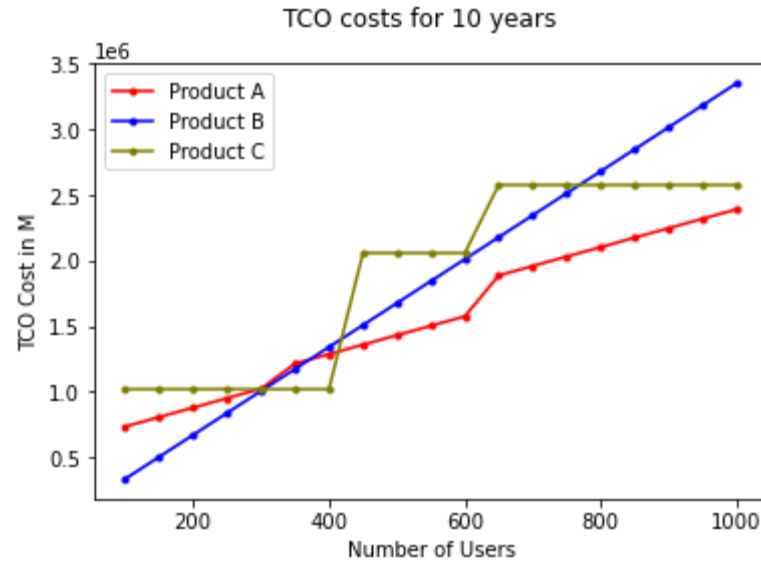
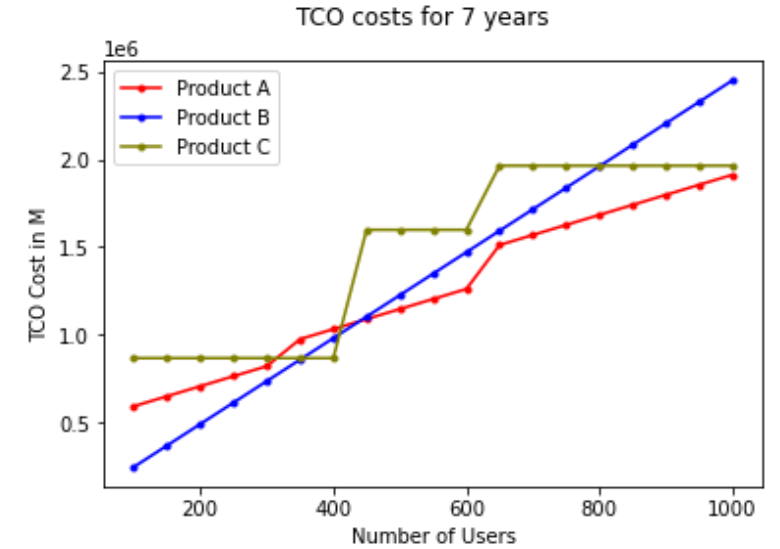
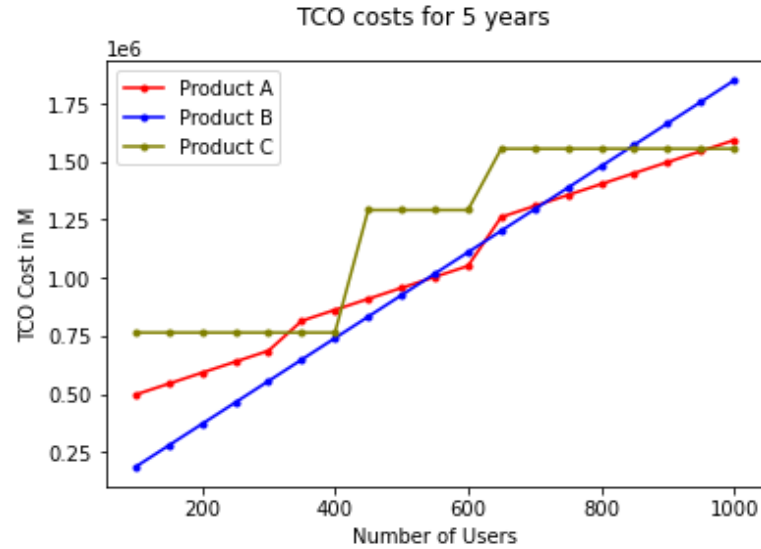
The Five-year TCO Costs of each product as a variation of number of end users (100-1000)



Assuming 300 end users, OPEX and CAPEX is calculated for five years.

	TOTAL CAPEX	TOTAL OPEX	TOTAL TCO
PRODUCT A	416200	269264	685464
PRODUCT B	105000	450000	555000
PRODUCT C	510000	254000	764000

Comparing 5, 7,  
10, 15 years  
TCO cost in the  
graph



## Inference from the previous slide

- For a small organization less than 400 users and for less than 7 years of product usage, we can consider product B as the TCO is low relatively.
- It is recommended to use Product A for a Big organisation having more than 400 users which will use the product for more than 7 years and longer the year goes lesser the relative TCO cost is for Product A.
- If the organisation user count is fixed and doesn't change a lot in upcoming years, we can consider the Product C as even if we increase number of users from 400 to 401, we get a approximate 40% increase in TCO for 5 years.

# Five additional cost factors

- Human Resource: In cloud solutions, we have access to their support service when something goes wrong with the product. But when the product is local, we need a special team to monitor and give support for the product
- In-house Area Cost: Cloud solutions doesn't require any space whereas local product needs area to place our hardware.
- Cost associated with version Upgradability
- Disaster recovery site area cost
- Furniture Cost for Hardware