

Week-04-L-04

# Value Engineering Agricultural Plan

## Creative & Evaluation Phase

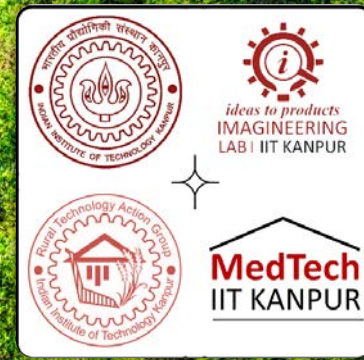
### Evaluation & Analysis

- ABC Analysis
- Morphological Analysis
- Attribute Listing

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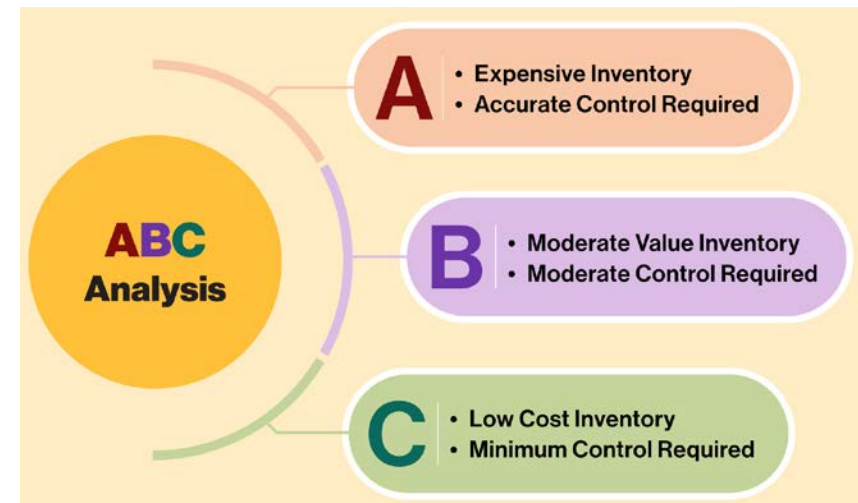
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# ABC Analysis

- ABC analysis is a resource management approach that classifies agricultural inputs into three categories based on their impact.
- 'A' category inputs, although few in number, significantly affect productivity (e.g., high-quality seeds).
- 'B' category inputs, more numerous, have moderate impact (e.g., equipment maintenance).
- 'C' category inputs, majority, have minimal impact (e.g., office supplies).
- *Efficient resource allocation prioritizes 'A' inputs for optimal yield & quality.*



# ABC Analysis

## ABC analysis model

### Class A

- 20% of all your products
- Highest annual consumption
- Valuable items

### Class B

- 30% of your products
- Average annual consumption
- Less important items

### Class C

- 50% of all the goods
- Lowest consumption rate
- Least valuable items



# *Morphology Analysis*

- Morphology means structure. This method calls for identifying the structural dimensions of a problem and examining the relationship among them.

*Example:*

- Enhancing crop transportation.
























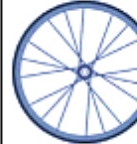












*Important dimensions:*

1. Mode of transport (tractor, truck, conveyor belt)
2. Surface (fields, roads, conveyor systems)
3. Power source (fuel, electricity, human labor)

*Result:*

A tractor-based transportation system over agricultural fields is 'The Agricultural Tractor.'

# Morphological Analysis of a Cycle

	type 1	type 2	type 3	type 4	type 5	type 6	type 7	type 8	type 9
Handlebar									
Saddle									
Frame									
Wheel set									
Chainwheel set and crank									

# Attribute Listing

- List the major attributes of an existing product and then modify each attribute in the search for an improved product.

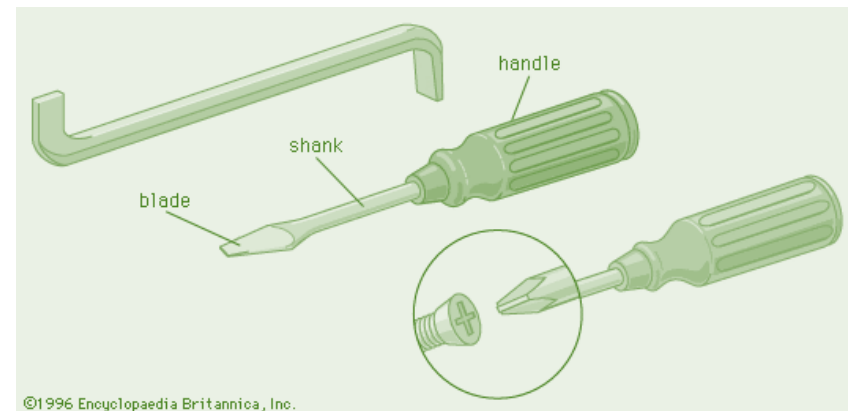
*Example:* Screw driver

*Attributes:*

1. A round steel shank
2. A wooden handle
3. Manually operated
4. Torque provided by twisting action

*Improvements:*

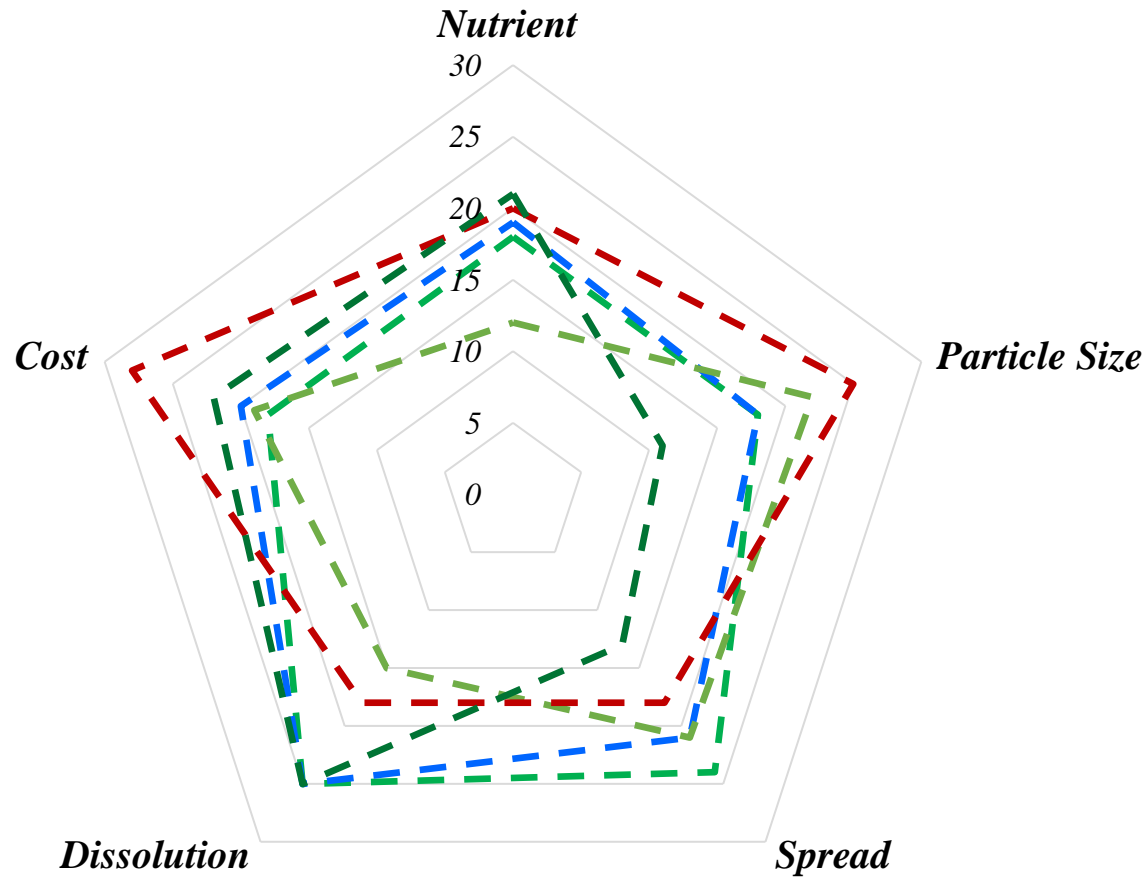
1. Round shank to hexagonal
2. Electric power replaced manual power
3. Torque could be produced by pushing



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# Attribute Listing

## Attribute Listing of 5 Fertilizers



■ Fertilizer A  
 ■ Fertilizer B  
 ■ Fertilizer C  
 ■ Fertilizer D  
 ■ Fertilizer E

(On Scale of 30)

Thank You

