Week-05-L-03

Value Engineering Agricultural Plan

Development and Implementation Phase

Basics of Life Cycle Costing

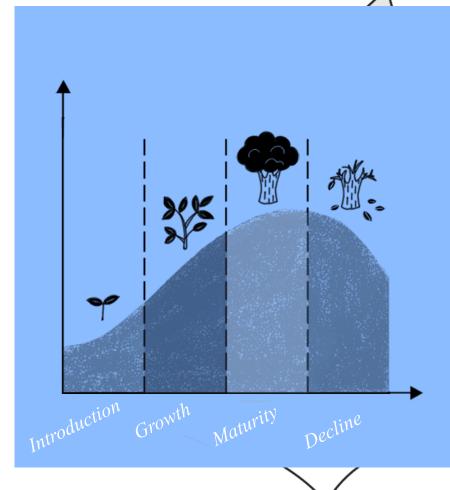
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Product Life Cycle



Product Life Cycle

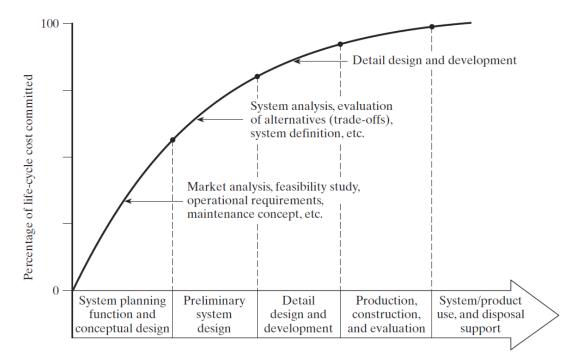
['prä-(,)dəkt 'līf 'sī-kəl]

The stages of growth and decline a product experiences between being introduced to consumers and being discontinued.



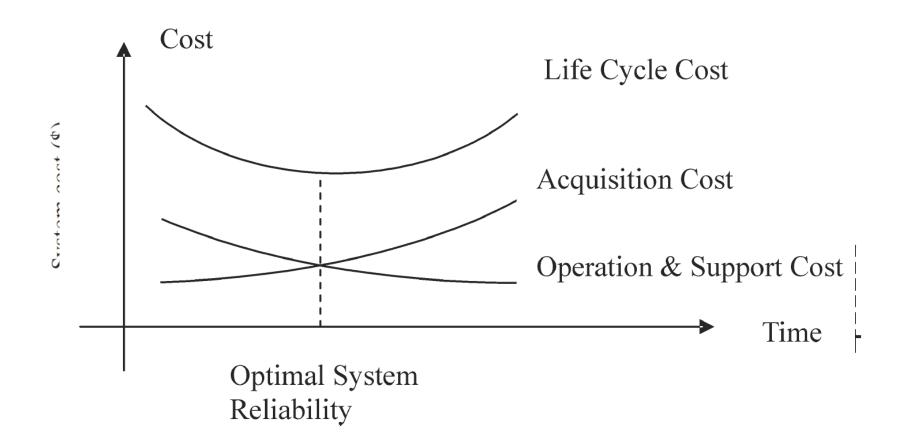
In general

- **R&D Cost:** Initial planning, product research, engineering design, software, & management functions.
- **Production & Construction Cost:** Manufacturing, facility construction, quality control, & initial logistic support.
- Operation &
 Support Cost:
 Customer
 operations, product
 distribution, &
 sustaining logistic
 support throughout
 the product's life
 cycle.





Plotting of Costs During Life & Amongst each other





Data





Cost Collection Worksheet

PROGRAM ACTIVITY	COST CATEGORY DESIGNATION	COST BY PROGRAM YEAR (\$) 1 2 3 4 5 6 7 8 9 10 11 12 13													TOTAL COST (CONSTANT \$)	TOTAL COST (ACTUAL\$)	TOTAL COST (PE \$)	% CONTRI- BUTION
Alternative A 1. Research and development a. Life-cycle management b. Product planning (1) Feasibility studies (2) Program planning 2. 3. Others	C_R		2		•)		•)			12		(CONSTANT \$)	(ACTOAL #)	(1 Σ ψ)	
Total cost (constant)																		
Total cost (actual)																		
Total cost (PE)																		
Alternative B 1. Research and development 2.	C_R																	



Models

Conceptual Models

Macro-level models with flexibility and qualitative variables.

Analytical Models

- Mathematical models that vary from simple to complex.
- Widely used for LCC calculations.

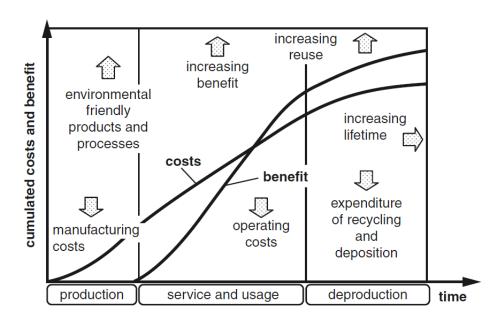
Heuristic Models

- Include simulation models but don't guarantee optimum solutions.
- Based on experience and rule-of-thumb strategies.



Comprehensive Tool for Continuous Development

- LCC offers long-term advantages, enabling manufacturers to generate revenue during product usage & end-of-life stages when informed design decisions are made.
- Continuous Development:
 LCC methodologies
 continue to evolve to
 support economic decision making, sustainability, and
 efficiency.



Thank You

