TECHNOLOGICAL

RHYMES WITH ORANGE By Hilary Price



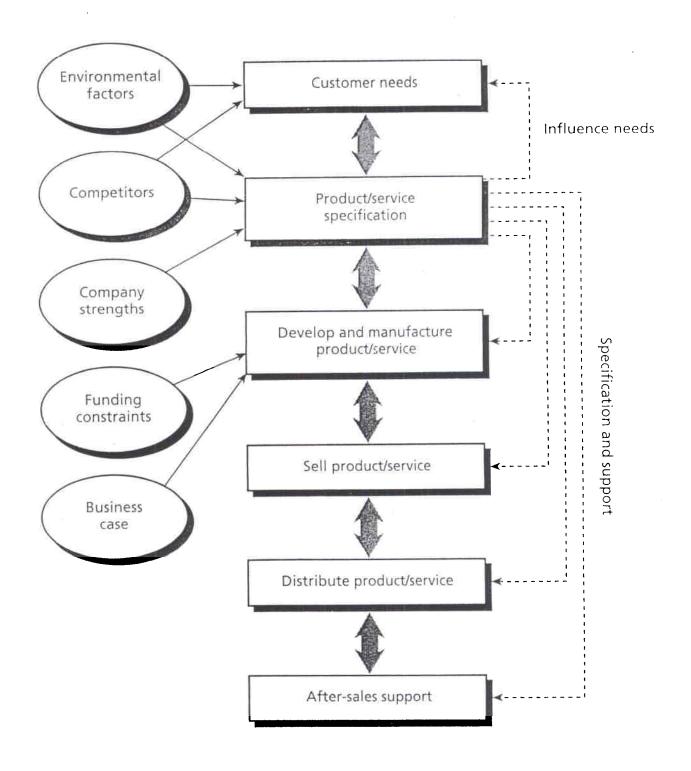
STRATEGY

What is Marketing?

Marketing defines what to provide, how to ensure that customers know about it and buy it, and how to get it to the customers

It is important to realize that customers do not buy products or services; they buy perceived benefits

Marketing Roles



The Marketing Mix

- PRODUCT
- PRICE
- PROMOTION
- PLACE

Types of Markets

CONSUMER

INDUSTRIAL

Consumer Market

Categories of Consumer Goods/Services

- Convenience goods/services

 purchased frequency without much
 thought of research (e.g., household supplies)
- Shopping goods/services

 furchased in frequently, making careful
 comparisons (a.z., refrigerator)
- Specialty goods/services unique characteristics; no substitutes; such target markets

Industrial Market - 1

Categories of Users

operations

product/service incorporation (GEMs)

resale

Industrial Market - 2

Categories of Goods

raw materials

fabricated parts

capital goods

accessory equipment

operating supplies

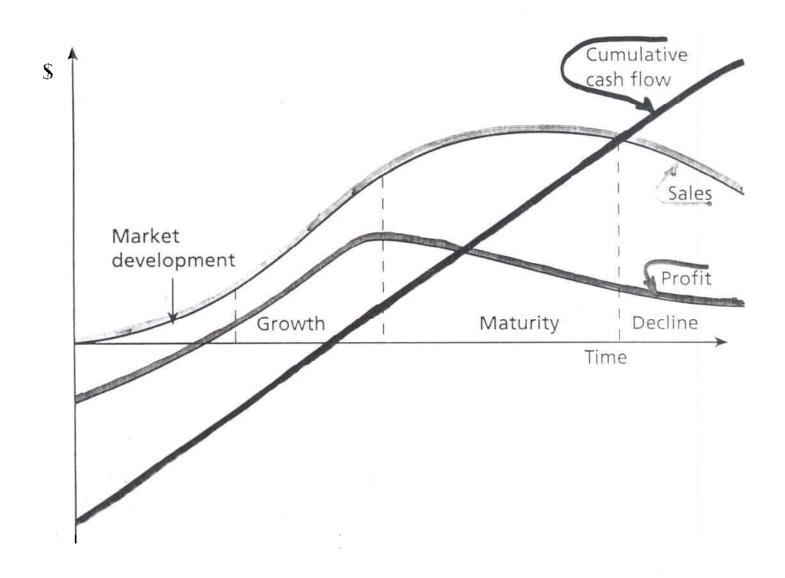
badged products

Industrial Market - 3 DISTINCTIVE CHARACTERISTICS

derived demand
less pricing flexibility
market changes magnified
fewer buyers
sophisticated buyers
diffused buying
responsibility
smaller geographical

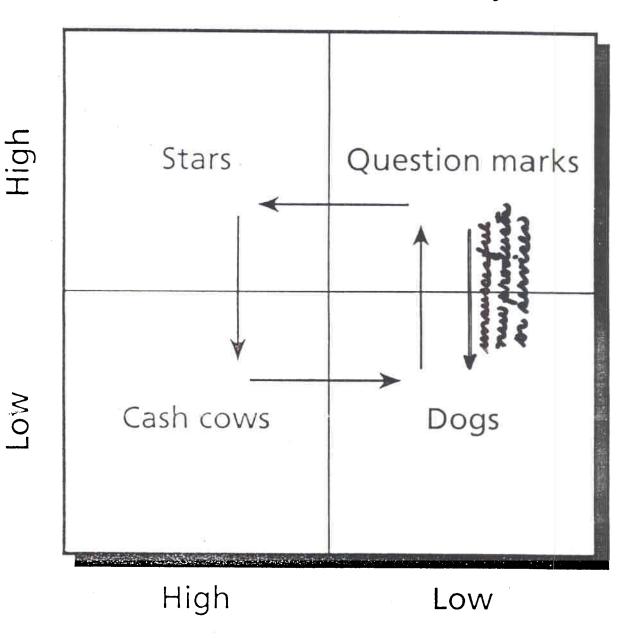
distribution

Product Life Cycle



Product Portfolio

Boston Matrix Portfolio Analysis



Market share

Market growth

Product and Market Strategies

Product	Market							
	Existing	New						
Existing	Penetrate market further	Develop new market						
	Displace competition	Create demand						
Increase market share		'Tweak' product						
	Expand market	Sell company image						
New	Build on existing brands	High risk						
	Build on reputation	Diversification						
		Needed for growth						

Technological

Strategy

Approaches

Technological Strategies

OFFENSIVE STRATEGY
First-to-Market Policy

DEFENSIVE STRATEGYFollow-the-Leader Policy

IMITATIVE STRATEGY Me-Too Policy

INTERSTITIAL STRATEGY
Applications Engineering Policy

Technological Strategies

PRODUCT INNOVATOR

MARKET FOCUS

Technology intuitive in introduction/growth stage

PRODUCT FOCUS

Radical designs using new technologies

PROCESS FOCUS

Flexibility with limited volume

INTEGRATOR

MARKET FOCUS

Market perceptive in all stages. Emphasis on new market applications.

PRODUCT FOCUS

Incremental and radical new products

PROCESS FOCUS

Incremental and radical process improvements

PRODUCT NNOVATION

LOW

HIGH

REACTOR

MARKET FOCUS

Competition reactive in maturity/decline stage

PRODUCT FOCUS

Imitative products

PROCESS FOCUS

Cost reduction with minimal investment

VALUE LEADER

MARKET FOCUS

Customer responsive with strong customer service

PRODUCT FOCUS

Quality and value with improved products

PROCESS FOCUS

Quality and productivity through process refinement

LOW

PROCESS INNOVATION

HIGH

Technological Strategies

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Strategy Function	Offensive.	Defensive.	Imitative.	Applied Engring. /Interstitial.
Nondirected Fundamental Research.	М	М	N	N
Applied Directed Research.	Н	М	N	N
Experimental Development and Design.	Н	Н	N	L/M
Advanced Development and Design.	Н	Н	Н	Н
Pilot/Prototype to Full Production.	М	М	Н	М
Quality Control/ Product Design.	М	M	Н	М
Patents and Licenses.	Н	М	L	М
"After-Sales" Services.	Н	М	Н	Н
Education and Advisory Services.	Н	М	L	Н
Long-Term Planning.	Н	М	L	Н

Key: None.

Low.

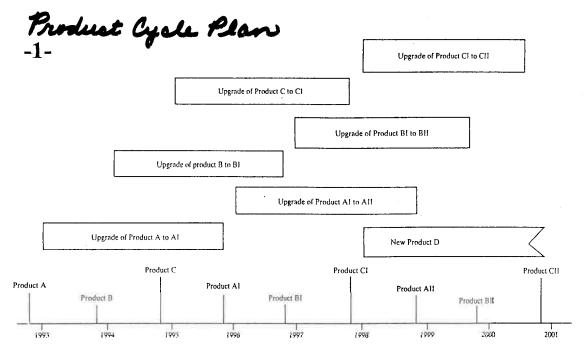
Medium.

High.

Technological Functional Deployment Process

W. Dale Compton - 1997

- analogous to quality functional deployment (QFD) process tool used in concurrent engineering
- creates a technological road map for the enterprise
- objectives are:
 - (1) the development of a consensus understanding of a technology strategy that fully supports the business strategy
 - (2) the commitment of the necessary resources in the business plan to support development of the technologies



Product life cycle plan

Jechnological Auds Matrix -2-

TECHNOLOGICAL NEEDS as DETERMINED by
PLANS for PRODUCTS, PROCESSES and SERVICES

Product Descripton:	Customer											
			Compe	titor _								
Expected Date of Introduction:			Competitor's Product									
Estimated Sales 199 =		 	Best-In	-Class F	roduct							
NEW ATTRIBUTES	DEVELOPMENTS NEEDED for	TECHNOLOGY	Tech.	TEC	NKINC HNOL	OGY		Preliminary Assessment				
PROPOSED NEW or MODIFIED PRODUCT, PROCESS OF SERVICE	NEW or MODIFIED PRODUCT, PROCESS, or SERVICE	ID ACCOMPLISH DEVELOPMENTS SUCCESSFULLY	Classification of Tech. (B.CA or R) (Base, Comp. Adv. Revol.)	Availability of the Technology	Capability of the Firm	Probability of Success	SUM of Rankings	of Technology (Aggressive-A) (Consider Further-F) (Delay-D)				
								,				

Consolidated Technological Aceds Matrix

-3-

CONSOLIDATED
TECHNOLOGICAL NEEDS as DETERMINDED by
PLANS for PRODUCTS. PROCESSES and SERVICES

NEW ATTRIBUTES of the	DEVELOPMENTS Of the PROPOSED EW or MODIFIED PRODUCT, PROCESS OF SERVICE DEVELOPMENTS NEEDED for NEW or MODIFIED PRODUCT, PROCESS, or SERVICE DEVELOPMENTS NEEDED for NEW or MODIFIED PRODUCT, PROCESS, or SERVICE TECHNOLOGY REQUIREMENTS 10 ACCOMPLISH DEVELOPMENTS SUCCESSFULLY S		ech.	RANKING OF TECHNOLOGY LITWALTH HIBARTS						ings.	ogy	e_	6 %	
PROPOSED NEW or MODIFIED PRODUCT, PROCESS or		Life Cycle of Tech.	Current Status	Capability	Probability of Success	Value to the Enterprise	Adaptability to Several Prod.	Cost to the Competitors	SUM of Rankings	Date Technology is Needed	Final Action (A), (F) or (D)	Action Plan		
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assument of App ortunities MATRIX III

ASSESSMENT OF OPPORTUNITIES PRESENTED BY TECHNOLOGY

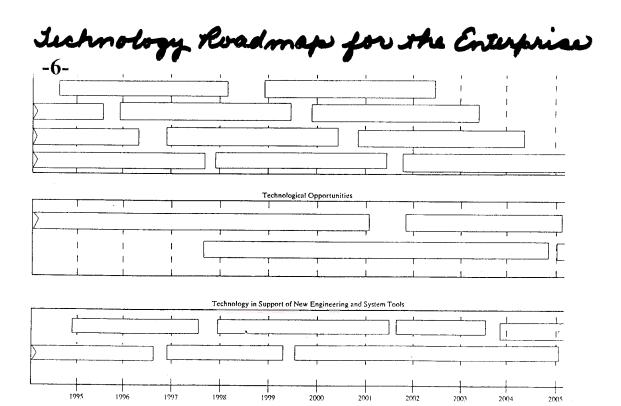
PROPOSED TECHNOLOGICAL OPPORTUNITIES	NEW or MODIFIED PRODUCTS. PROCESSES, or SERVICES that TECHNOLOGY MAY ALLOW	Level of knowledge High, Med Live	Prob. of Success (High, Med Low)	Life Cycle of Competing Tech. (7), (7) % (04)	KEY PROBLEMS that must be SOLVED before TECHNOLOGY can be used SUCCESSFULLY	Assessment of Competitors Response	Desirability Further Consideration	Detailed Assessment? (If Yes, by Whom?)	Mode of Exploration Int. (I), Ext. (E) Joint (J)	Action Plan (if yes, by whom!)	Final Responsibility for Program	Review Authority
											-	
									A STATE OF THE PROPERTY OF THE		•	

Engineering and Lystem Needs

-5-

NEED for NEW ENGINEERING and SYSTEM TOOL

	NEW TOOLS	TASKS	RANKING LOW = 1 TO HIGH = 10			80	ther	tent?	v c	rion (3)	ction (D)	(; E	lity	lt y
ENGINEERING and SYSTEM NEEDS	NEW TOOLS NEEDED to SATISFY NEEDS REQUIRED to PROVIDE the NEW TOOLS		Adequacy of Technology	Availability of Technology	Expeted Lifetime of Tool	Sum of Rankings	Desirability Further Consideration	Detailed Assessment? If Yes, by Whom?	Expected Date of Completion	Mode of Exploration Int. (!), Εκι. (Ε) Join. (!)	Recommended Action Agressive (A), Consider Further (F) or Delay (D)	Action Plan (If Yes, By Whom?)	Final Responsibility for Program	Review Authority
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Technology roadmap for the enterprise