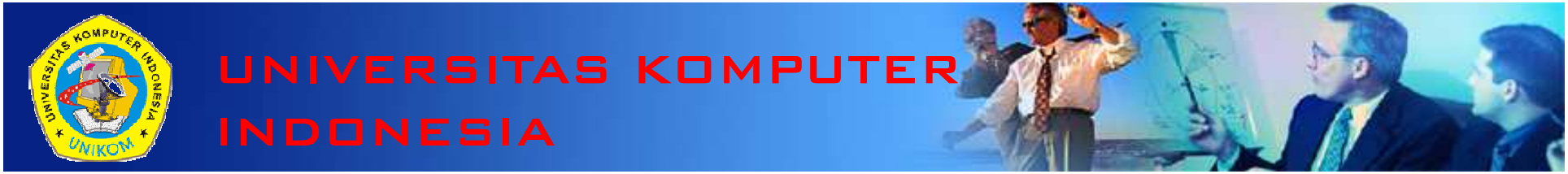

Chap 6:
IT Portfolio and Resources

Source: [Benson] Chap 4

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Magister Sistem Informasi
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Idea of Managing IT as Portfolio

- Investment decision, risk management (Warren McFarlan, 1981
- Tool for managing infrastructure, services, activities

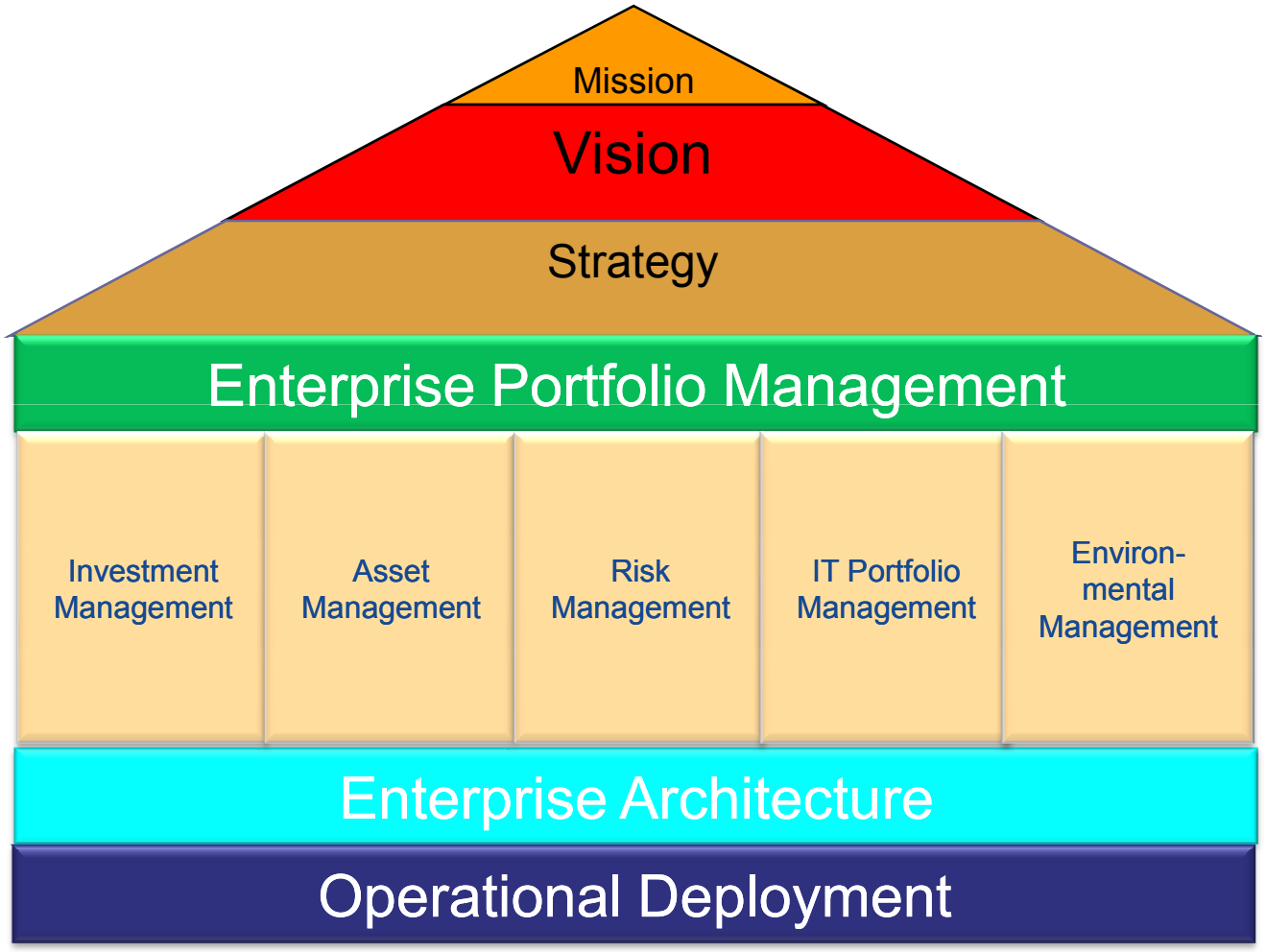
Portfolio:

collections of resources.

Portfolio Management:

a powerful tool for planning and decision-making about IT investments and resources

Enterprise Portfolio Management



Basic Portfolio Template

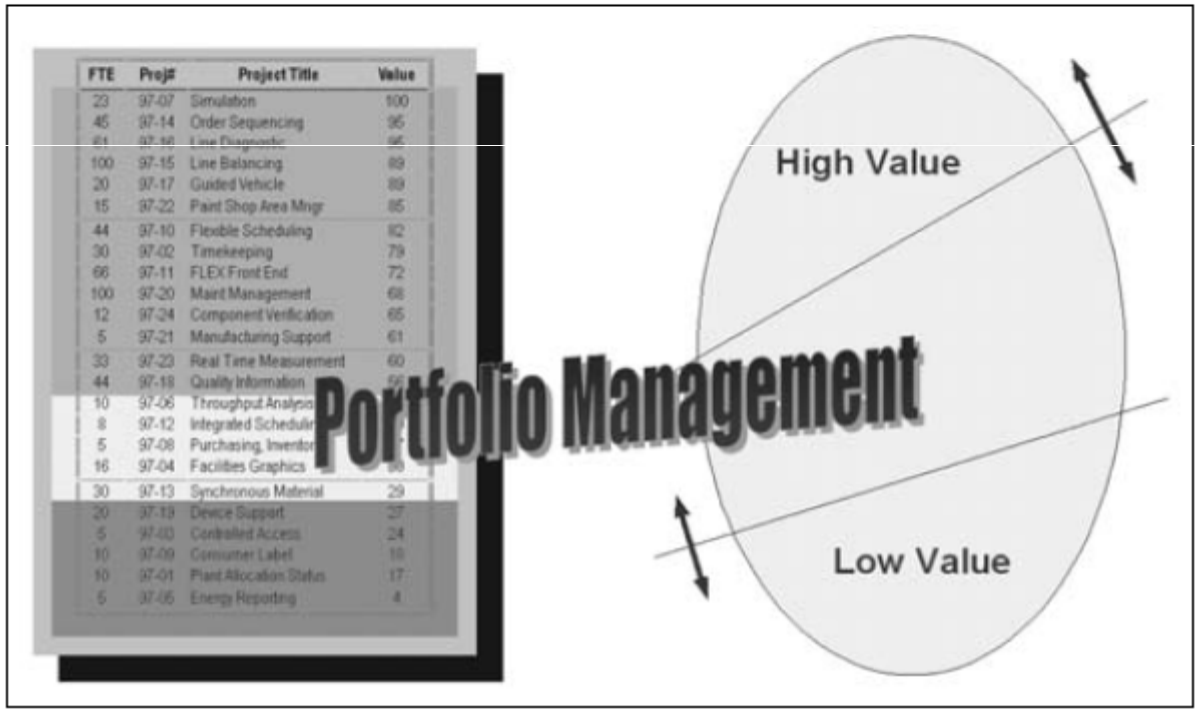
Basic Information			Service and Quality				Risk and Uncertainty				Value/State		
(A Portfolio line item is an individual application, infrastructure component, service, or management activity)	Quantity	Costs or Resources Consumed ($ or FTE)	Functionality	Accuracy	Availability	Responsiveness	Business	Technology	Organizational	Project	Technical Assessment	Strategic Alignment	ROI
Item 1													
Item 2													
Item 3													

Application Portfolio Example (individual case)

Applications Portfolio								
Application	Unit of Work	Category	Cost ($millions)	Metric	Alignment Value	Service Level	Quality	Intensity of Use
Sales Force Automation	# Transactions	S	3	Trans/Day	25	3	1	Low
Sales Decision Support	# Transactions	S	1	Invoice Days	42	5	4	Low
Sales/Marketing Database	# Payments	S	3	$ In Process	12	1	2	High
Accounts Payable	# Invoices	B	5	Call Wait	39	1	2	Med
Financial Consolidations	# E-Inquiries	B	3	Billing Days	16	4	2	High
Five-Year Customer History	# Clients	S	1	Client Proc Qual	43	2	2	Med
Marketing Geographic Planning	# Sales	S	3	Inquiries	11	1	1	High
Human Resources Planning	# Retained	B	1	Retention Rate	15	1	2	Med
General Ledger	# Accounts	B	1	Customer Sat.	32	2	4	Low
Customer Information	# Account Inquiries	S	4	Percent Online Data	15	2	3	Med

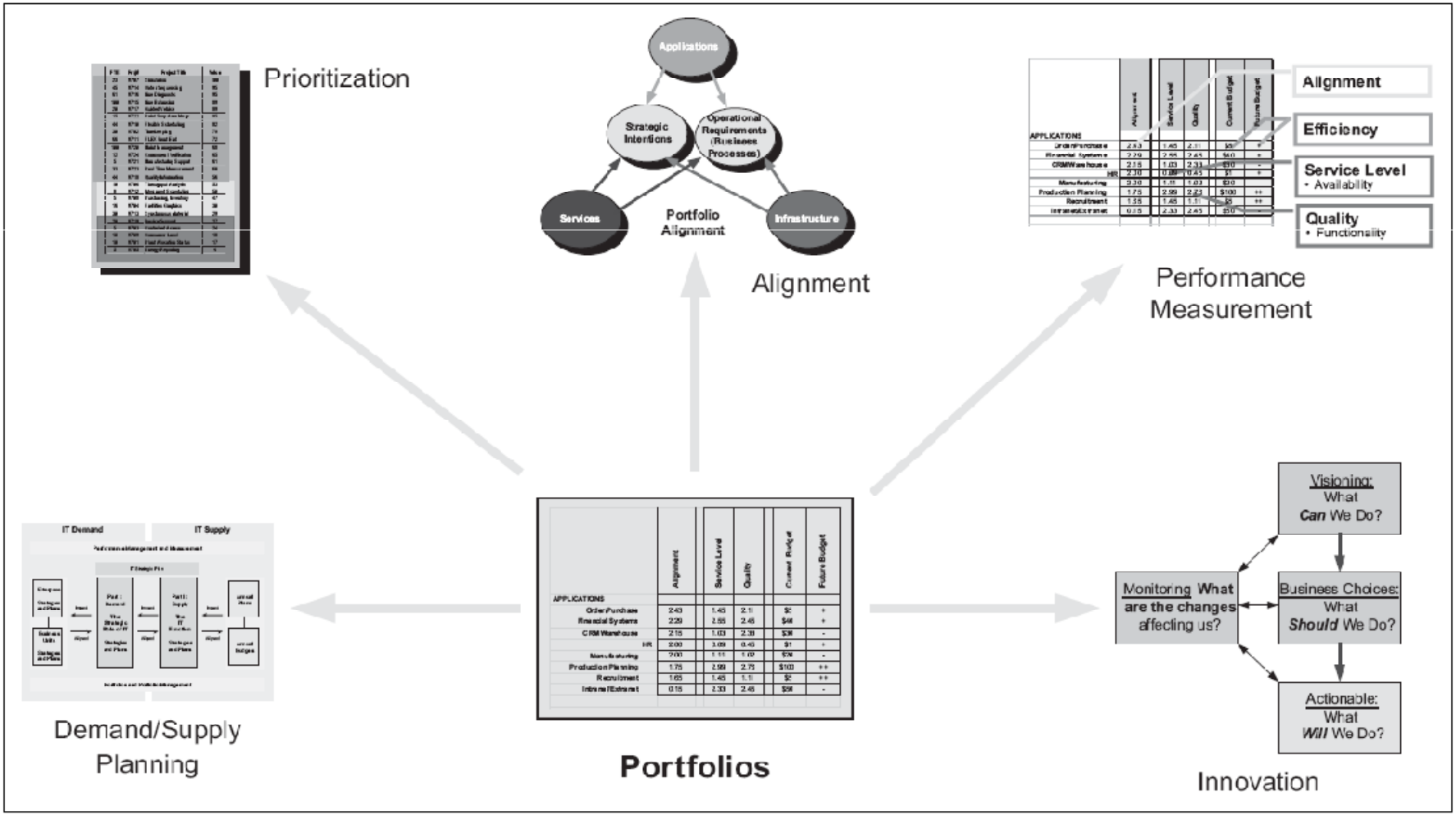
Portfolio Management

EXHIBIT 4.3 Portfolio Management Objectives: Improve Performance of the Portfolio



portfolio management is to *reduce the number of low-impact applications*

Portfolio Management



IT Portfolio enables management to: (General)

- Prioritize new investments.
- Understand the allocation of resources in both new investments and in ongoing lights-on expenses.
- Set targets for resources in the lights-on budget, in terms of service and quality and in terms of cost and cost reduction.
- Evaluate the performance of portfolio elements.
- Cull the lights-on portfolios of low-quality or poorly performing or overly costly elements.
- Establish strategy for the renewal of lights-on portfolio elements.

IT Portfolio enables management to: (IT Resources)

- The IT resources applied are at the right level.
- Any applications, services, or infrastructure elements need renewal or elimination.
- The set of investments in IT match the current needs of the business.
- The set of investments serve its long-term strategic intentions.
- The mix of investments in the portfolios are reasonably balanced with regard to service and quality.
- Some IT resources are underperforming.

FOUR IT PORTFOLIO CONCEPTS

1. *Portfolio management applies to the entire set of IT resources;*
2. *IT resources are divided into new investment and lights-on portfolios;*
3. *lights-on expenditures are classified from an IT perspective, in portfolios related to technology management;*
4. *the New Investment portfolios are classified from a business perspective, similar to financial investments.*

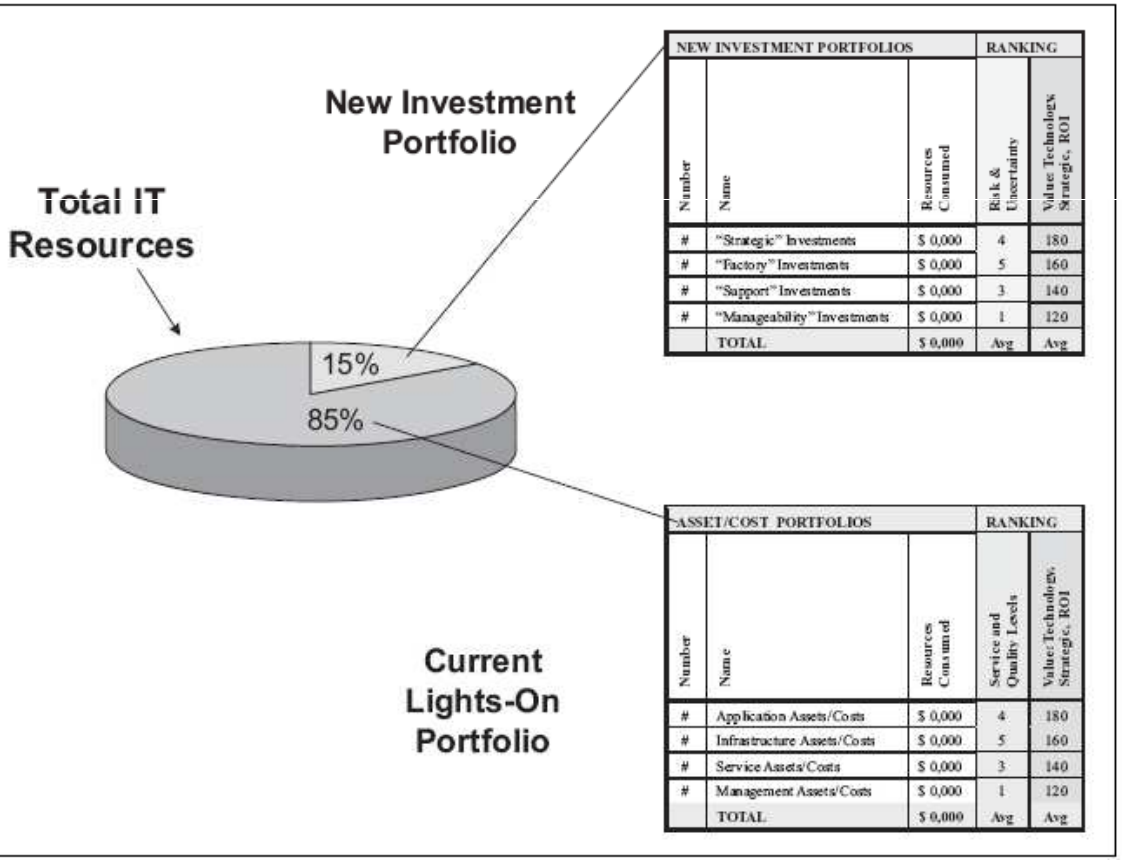
Concept 1: Portfolio Management applies to the entire set of IT resources.

- **Most current industry practices limit the role of portfolio management to the new application development and infrastructure development projects for the company**

- **There are some practical problems to use portfolio management for the entire IT spend**

Concept 2: IT resources are divided into new investment and lights-on expenditures.

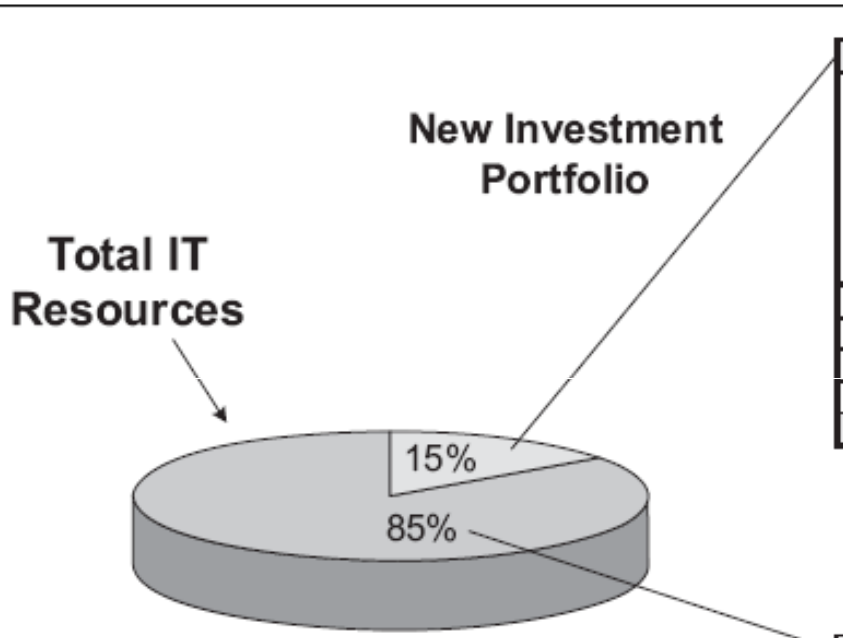
EXHIBIT 4.7 Total IT Resources Divided into Portfolios



NEW INVESTMENT PORTFOLIOS			RANKING	
Number	Name	Resources Consumed	Risk & Uncertainty	Value: Technology, Strategic, ROI
#	"Strategic" Investments	$ 0,000	4	180
#	"Factory" Investments	$ 0,000	5	160
#	"Support" Investments	$ 0,000	3	140
#	"Manageability" Investments	$ 0,000	1	120
	TOTAL	$ 0,000	Avg	Avg

ASSET/COST PORTFOLIOS			RANKING	
Number	Name	Resources Consumed	Service and Quality Levels	Value: Technology, Strategic, ROI
#	Application Assets/Costs	$ 0,000	4	180
#	Infrastructure Assets/Costs	$ 0,000	5	160
#	Service Assets/Costs	$ 0,000	3	140
#	Management Assets/Costs	$ 0,000	1	120
	TOTAL	$ 0,000	Avg	Avg

EXHIBIT 4.7 Total IT Resources Divided into Portfolios



NEW INVESTMENT PORTFOLIOS			RANKING	
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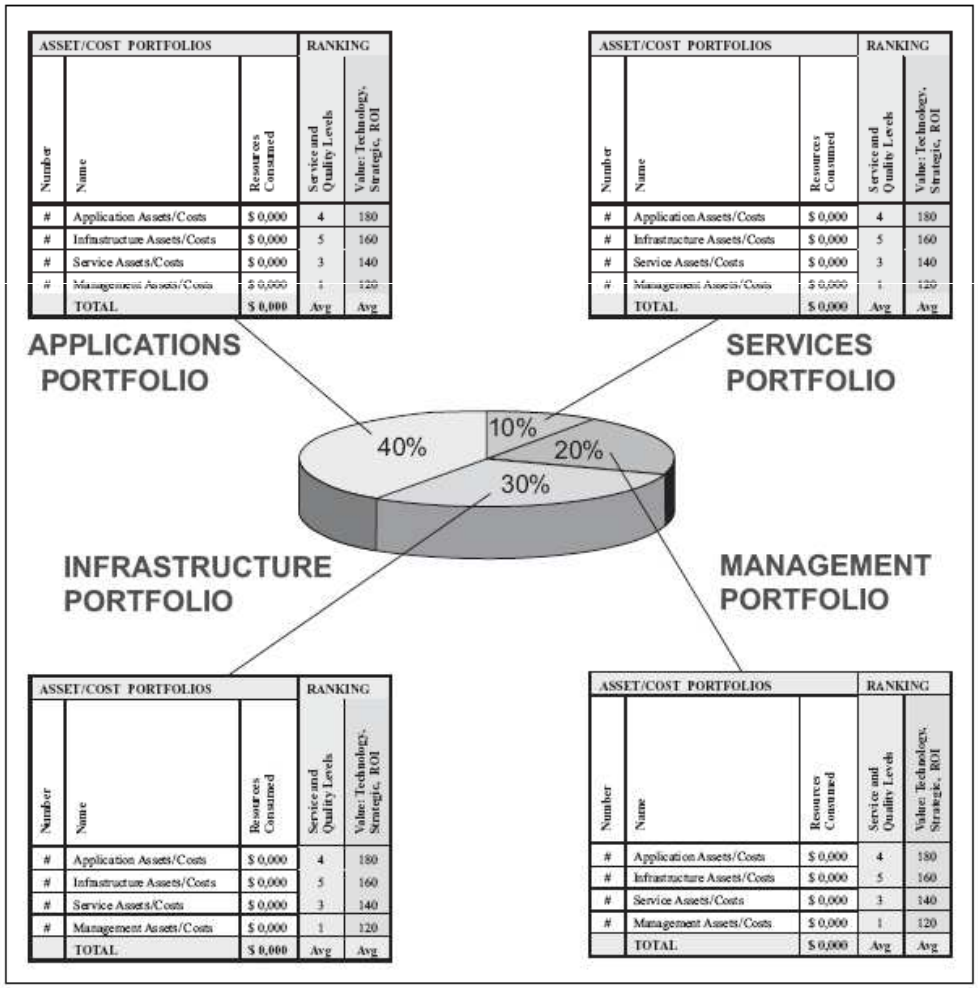
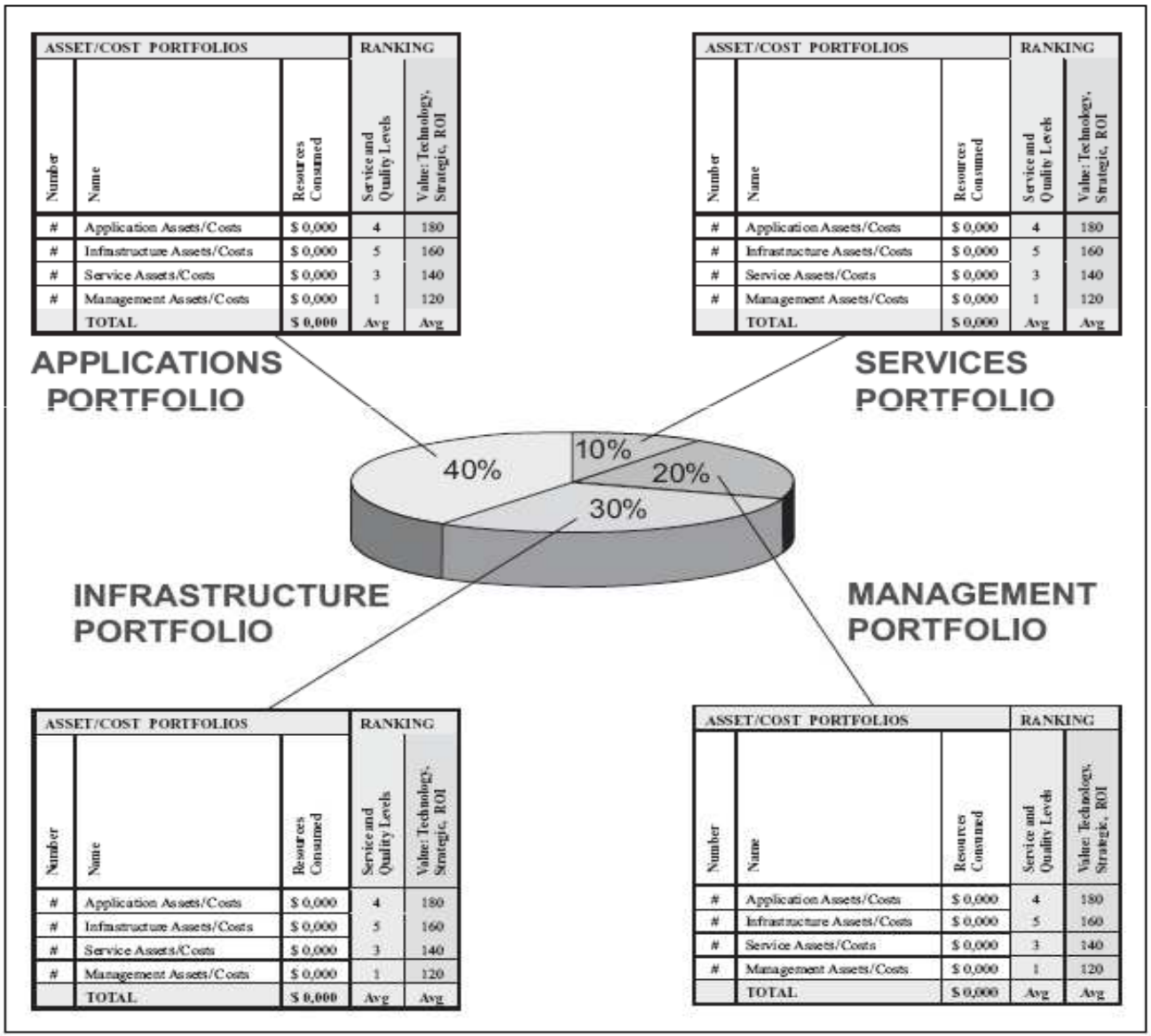
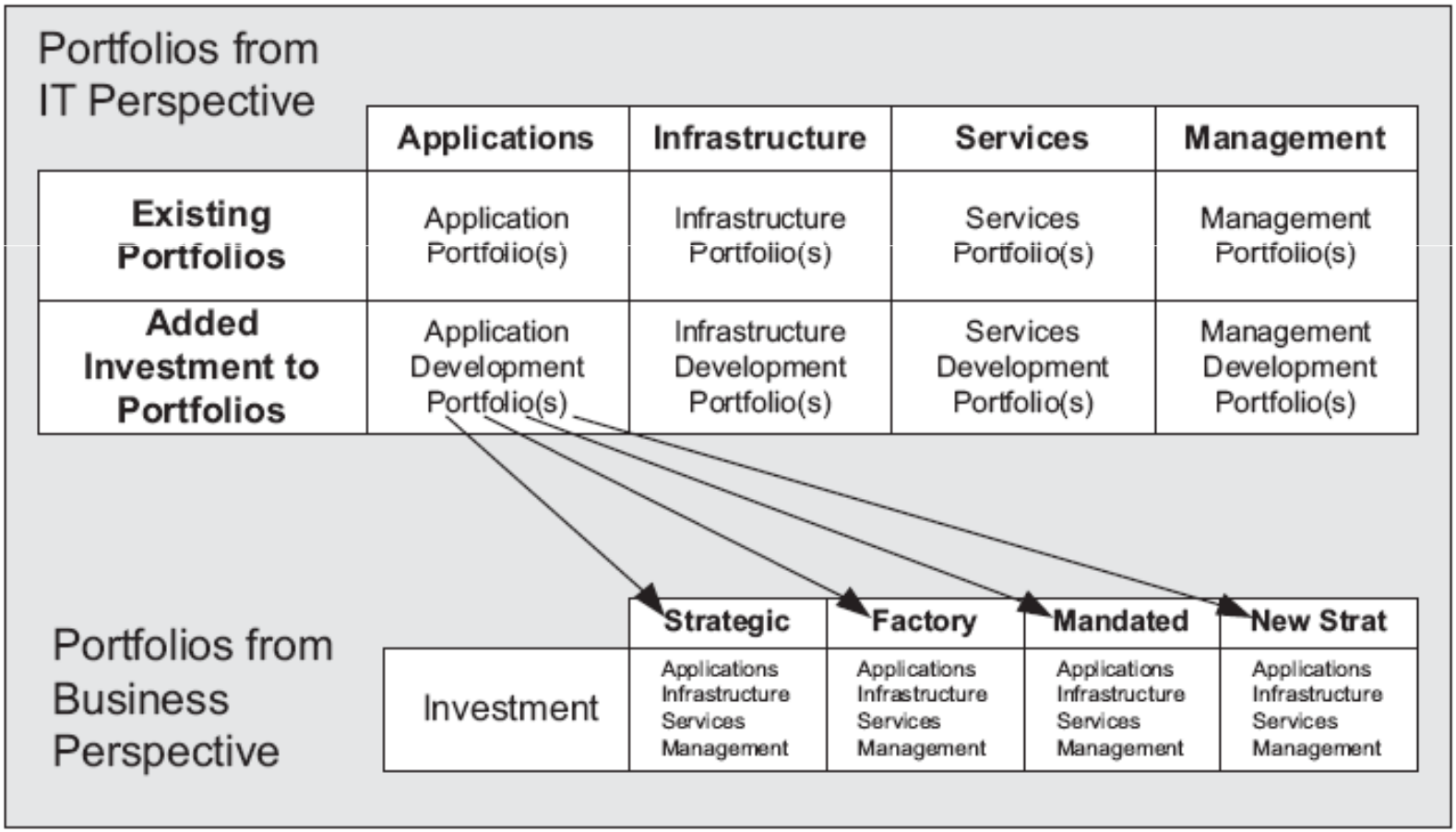
#	Management Assets/Costs	$ 0,000	1	120
	TOTAL	$ 0,000	Avg	Avg

Concept 3: Lights-on expenditures are classified from an IT perspective, in portfolios related to technology management

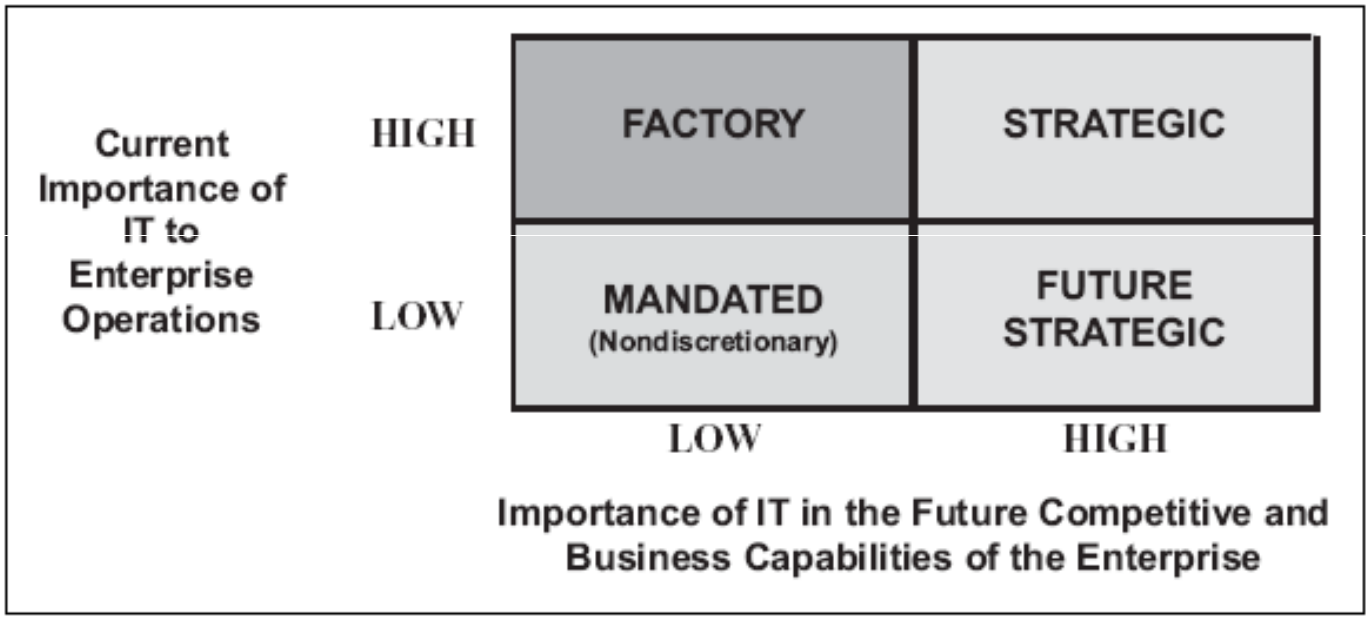



ASSET/COST PORTFOLIOS
RANKING
Number
Name
Resources Consumed
Service and Quality Levels
Value: Technology, Strategic, ROI
Application Assets/Costs $ 0,000 4 180
Infrastructure Assets/Costs $ 0,000 5 160
Service Assets/Costs $ 0,000 3 140
Management Assets/Costs $ 0,000 1 120
TOTAL $ 0,000 Avg Avg
APPLICATIONS PORTFOLIO
SERVICES PORTFOLIO
40%
10%
20%
30%
INFRASTRUCTURE PORTFOLIO
MANAGEMENT PORTFOLIO

Concept 4: The New Investment portfolios are classified from a business perspective, similar to financial investments.



Four Portfolio Categories (McFarlan)

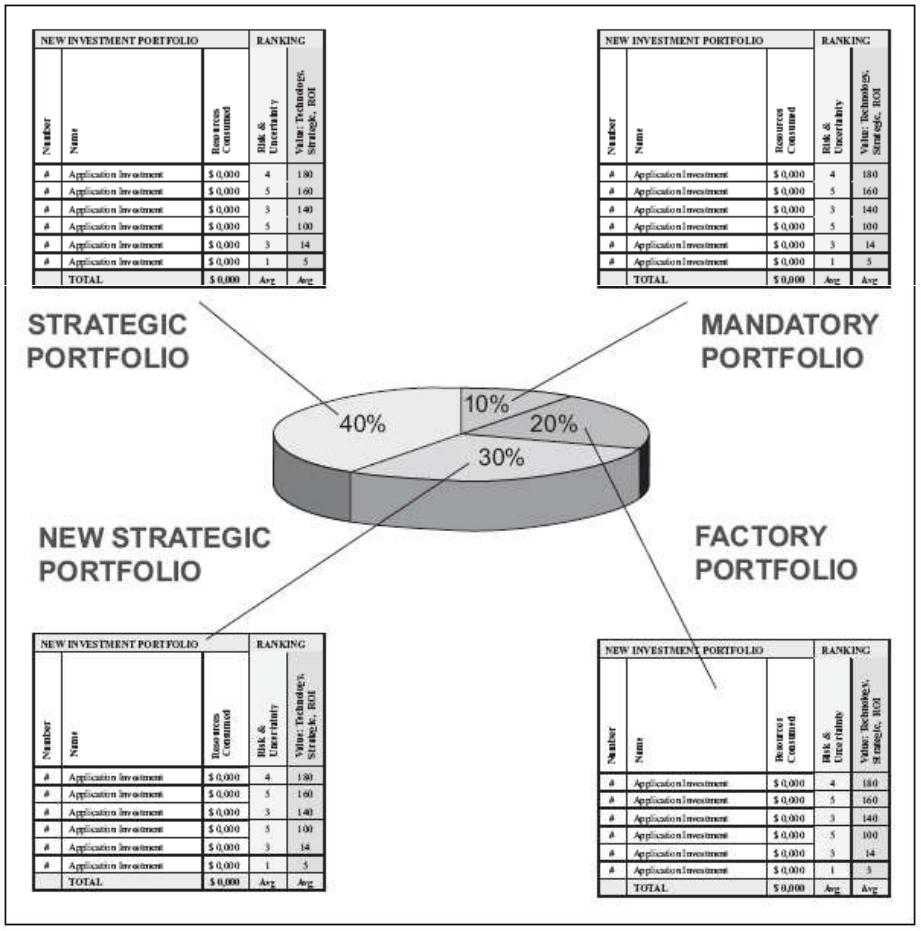


Warren McFarlan, "IT Changes the Way You Compete," *Harvard Business Review,* May–June, 1984, pp. 98–103.

Four Portfolio Category Descriptions for Development Portfolios

NIE Portfolio Categories	Description	Typical Value/ Justification	Typical Risks
Strategic	Investments that directly impact the competitive performance of the company. This can be as simple as new revenue generation, or as complex as reengineering basic processes or maintaining barriers to competitive entry, and so forth.	Revenue Market share Innovation Flexibility	High
Factory	Investments that keep the company running. These typically are thought of as "back office" investments. The company depends on the underlying applications to "keep the lights on" as well as perform the company's basic functions.	Reduced costs Increased throughput Reduced time Individual productivity	Low
Future Strategic	Investments that will impact the future performance of the company, typically new businesses, new products/services, and so forth.	Same as Strategic	High
Mandated	Legally or board-mandated investments.	None, or same as Factory	Low

Example Balance of IT Portfolios



Problem in Portfolio : appropriate level and coverage

Basic Information	Service and Quality				Risk and Uncertainty				Value/State		
This table shows how each NIE practice provides and uses information from Portfolio Management	Functionality	Accuracy	Availability	Responsiveness	Business	Technology	Organizational	Project	Technical Assessment	Strategic Alignment	ROI
Demand/Supply Planning	X	X	X	X	X				X	X	
Innovation					X				X	X	
Prioritization					X	X	X	X		X	X
Alignment									X	X	
Performance Measurement	X	X	X	X					X	X	

Appropriate : Just Light on Portfolio

Portfolio	Category of Line Items	Example of Line Items
Applications	Centrally managed applications	Payroll
	Business unit managed applications	Sales information
	Individual user managed applications	Financial analysis
Infrastructure	Application Development Support	Application development environment and tools
	Infrastructure-delivered service	E-mail
	Data management	Warehouse
	Networking	Network facilities
	Infrastructure Management	Management tools, information
	Platform	Hardware and software
Services	Services provided to users (does not include services internally consumed within the IT organization)	Data administration
		Help Desk
		Break/Fix
		Trouble Ticket Management
		Network Monitoring
		Training
Management	Services or activities consumed within the IT organization	Budgeting/Finance
		Enterprise Architecture
		Planning
		Procurement
		Employee development

Coverage: Focus

EXHIBIT 4.15 Sample Investment Strategy

Category	Investment Strategy
Abandon: Dependency is low	Applications should be abandoned.
Crisis: Dependency is high (4,5) *and* Quality is 2 or less	Applications are candidates for investment to improve quality, especially with high dependence.
Noncritical, Stabilize: Dependency is moderate (3)	Dependence is moderate. Spend as little money on maintenance and enhancement as possible.
Improve Only as Needed Dependency is high (4,5) *and* Quality is moderate (3)	Although dependence is high, quality is adequate. Spend money only in emergency or as resources are left over.
Excellent, Monitor Both Dependency *and* Quality are 4 or 5	Monitor applications for quality issues. Spend money to maintain quality levels, but new investment is likely not needed.

Result of applying Portfolio

EXHIBIT 4.16 Investment Decisions within Portfolio