

AEMES 2005

Applications Strategic Performance Management and Measurement



Worldwide IT Benchmark Service

Jed Rubin: Jed.Rubin@gartner.com

Gartner

Agenda

- Items to be addressed:
 - Overview of the Worldwide IT Benchmark Research
 - What Is Strategic Performance Management?
 - How should this affect the way we view applications activity?
 - What are approaches to benchmarking IT performance in **IT** terms?
 - What are approaches to benchmarking IT performance in **Business** terms?
 - How can I effectively communicate our findings to create value?

About the Worldwide IT Benchmark Research

- Leading resource for IT measurement data since the early 1990s
- Covers data from more than 20 industry sectors:

<i>Banking</i>	<i>Chemicals</i>	<i>Consumer Products</i>
<i>Construction & Engineering</i>	<i>Education</i>	<i>Electronics</i>
<i>Financial Services</i>	<i>Food/Beverage Processing</i>	<i>Energy</i>
<i>Healthcare</i>	<i>Hospitality & Travel</i>	<i>Government</i>
<i>Insurance</i>	<i>Manufacturing</i>	<i>Information Technology</i>
<i>Metals/Natural Resources</i>	<i>Pharmaceutical & Medical Equipment</i>	<i>Media</i>
<i>Telecommunications</i>	<i>Transportation</i>	<i>Professional Services</i>
		<i>Retail</i>
		<i>Utilities</i>

- Includes data from thousands of companies, with strong sampling of Fortune 500/Global 2000 companies.
- Contains IT metrics in all areas of the IT organization (applications and infrastructure), including key cost and spending, performance, and quality measurements. Contact us for more details!

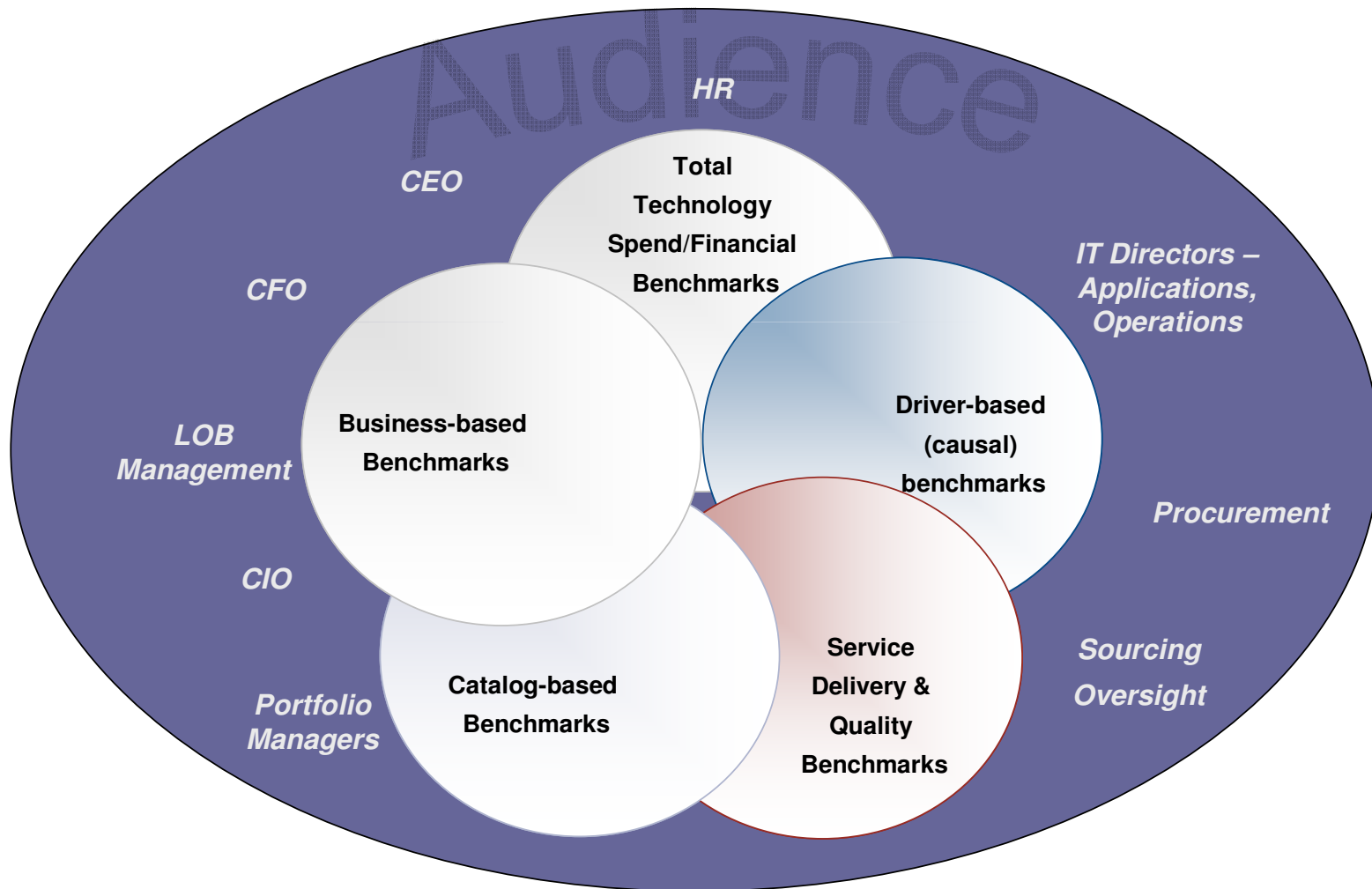
Strategic Performance Management and Measurement

- Strategic Performance Management means:
 - Knowing where the organization stands in both its technology and business environments, in real time and continuously calibrating
 - Having efficient and effective IT economics, based on business need
 - Being able identify opportunities and leverage technology to produce business value
 - Proactive communication of performance, in terms the audience (CIO, CFO, LOB) can appreciate
 - Provides superior service delivery within business requirements
 - Well established responsibility and accountability
 - Total transparency – no surprises

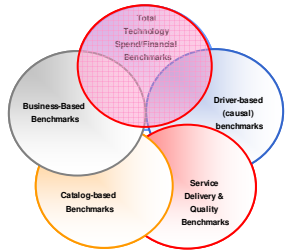
For applications, the same applies – and in some cases even more so: applications activity is often directly linked to business strategy and direction, and applications project performance can provide clear insight into the business alignment of IT...

Benchmarking Schematic

There are methods an organization can use to approach benchmarking, and these should be considered carefully, with the objectives of the audience in mind.



Total Technology Spend/Financial Benchmarks



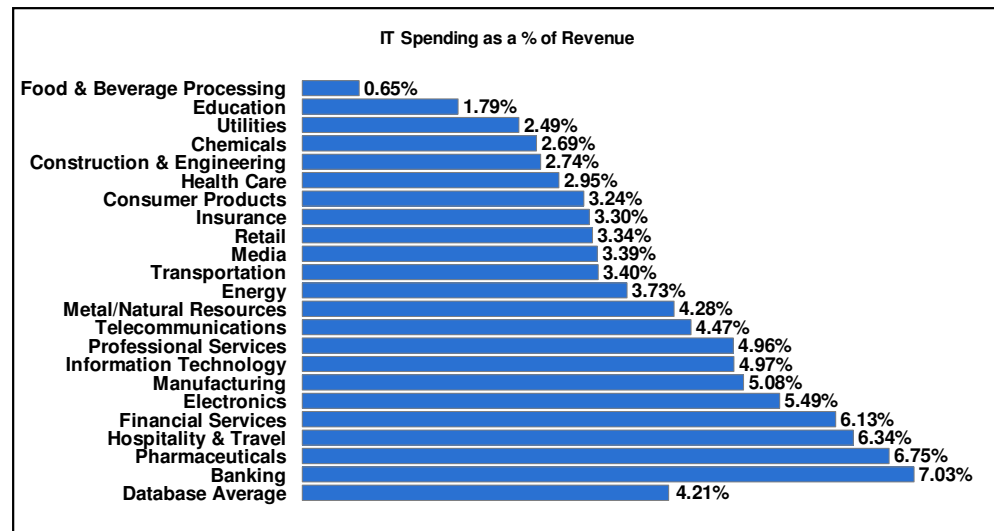
These help understand the full IT portfolio – in IT and LOB– to determine the competitiveness of IT investment and establish the true total technology spend.

IT Financial vs. Business/Financial Volume Benchmarks

- IT Spend: Infrastructure vs. Development vs. Maintenance; Personnel Expense vs. Non Personnel Expense
- IT Spend in LOB: e.g. Market Data, Process Automation
- Staffing characteristics: Employees vs. Contactors vs. Offshore
- Portfolio Profiles

Views

- Absolute Spending
- Key Ratios

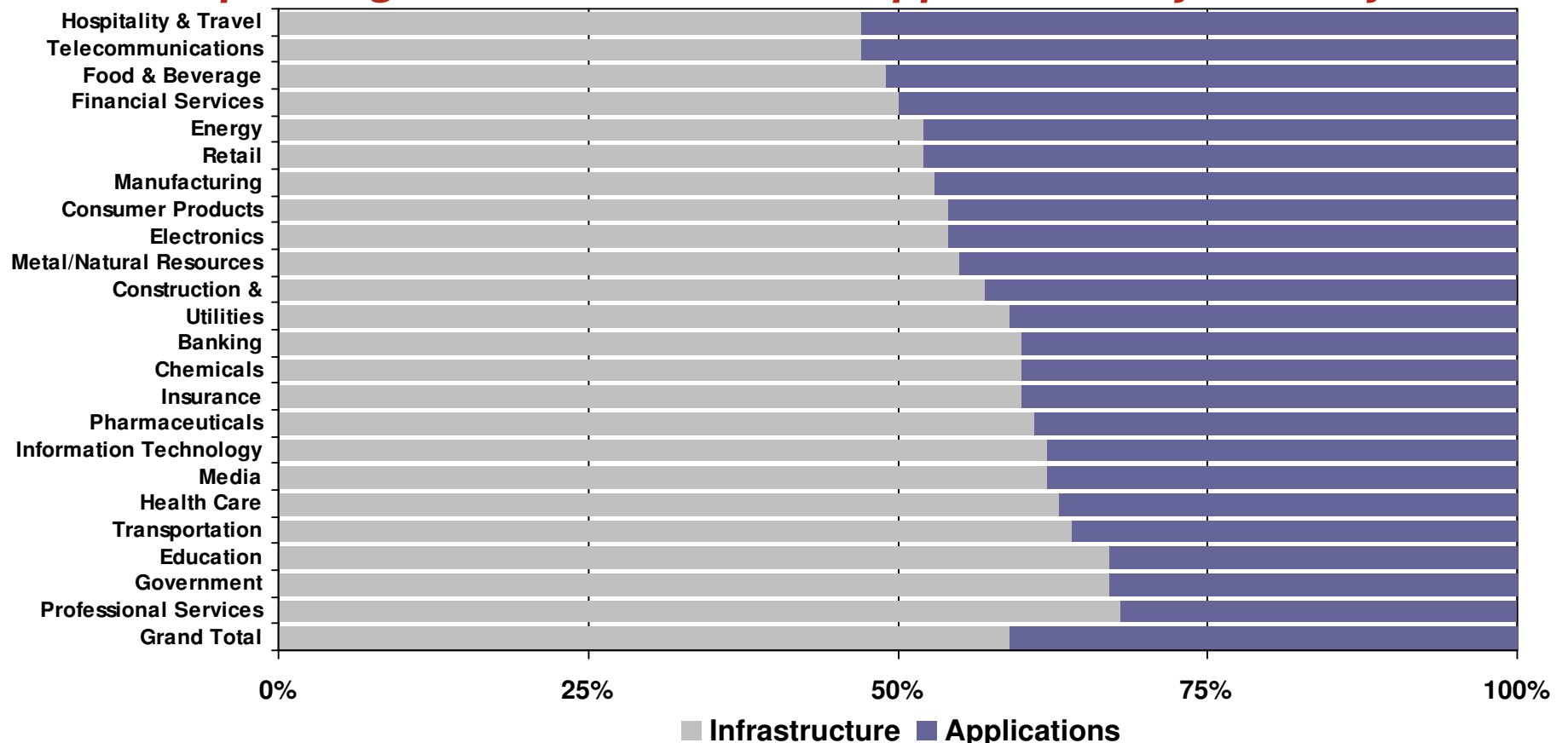


Understanding the Portfolio

Spending on Infrastructure vs. Applications

Though these high-level portfolio measures, organizations can begin to determine where they may need to focus their attention.

Spending on Infrastructure vs. Applications by Industry

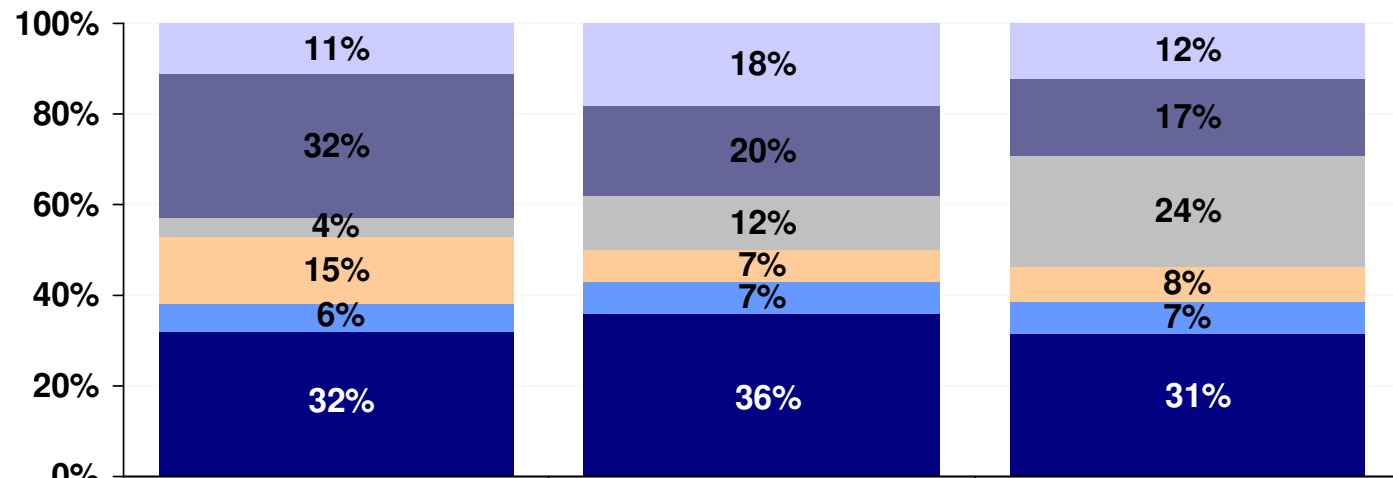


Source: Gartner Worldwide IT Benchmark Service

Understanding the Portfolio Applications Analysis

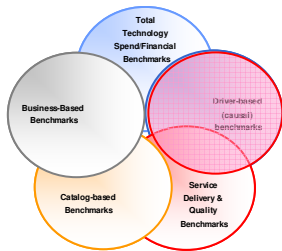
Provides a view of how organizations are investing across the applications portfolio.

Applications Spending Profile



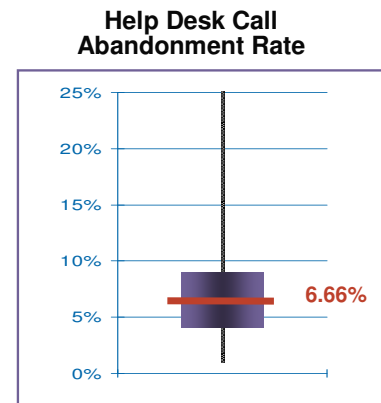
	2003	2004	2005
System Design	11%	18%	12%
New Development	32%	20%	17%
Package Installation	4%	12%	24%
Package Modification	15%	7%	8%
Migration	6%	7%	7%
Maintenance	32%	36%	31%

Driver-based (causal) benchmarks



Provide insight into industry norms and best practices that help understand key factors affecting performance.

- Procurement/External Costs
- Support ratios
- Quality
- Reliability
- Productivity
- Process



— = Average ■ = Middle quartiles | = Range

Sample cost/price comparisons:

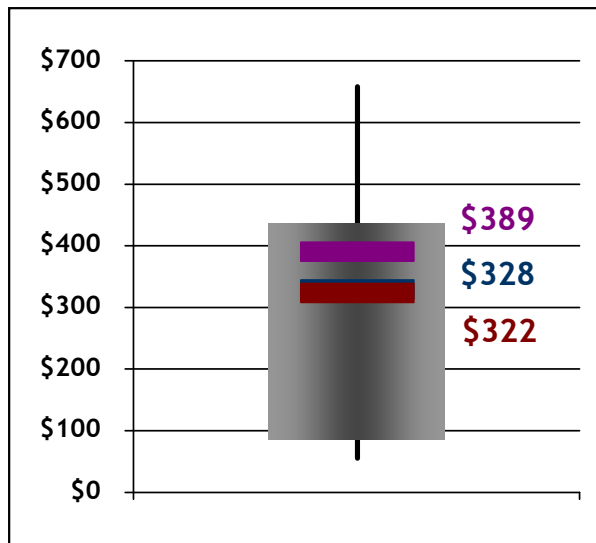
	Cost/Price Market Basket Analysis					
	3rd Party Pricing			Internal Cost at Peers		
	Company X	Low	High	Low	High	
Desktop						
Standard DT/LT per seat per month	\$ 150.00	\$ 135.00	\$ 170.00	\$121	\$193	
IMAC per event	\$ 95.00	\$ 85.00	\$ 120.00	\$65	\$135	
Mainframe						
CPU per UTIL MIPS	\$ 1,100.00	\$ 900	\$ 1,255	\$700	\$1,500	
DASD per allocated GB	\$ 80.00	\$ 70	\$ 87	\$29	\$155	
Tape per mount	\$ 1.50	\$ 1	\$ 2	\$0.68	\$1.95	
Application Servers						
NT Servers per server per month	\$ 1,500.00	\$ 1,405	\$ 1,915	\$1,100	\$1,400	
UNIX Small Servers per server per month	\$ 2,200.00	\$ 619	\$ 810	\$1,800	\$2,200	
UNIX Medium Servers per server per month	\$ 3,500.00	\$ 1,974	\$ 2,574	\$3,600	\$4,400	

Performance Ratios

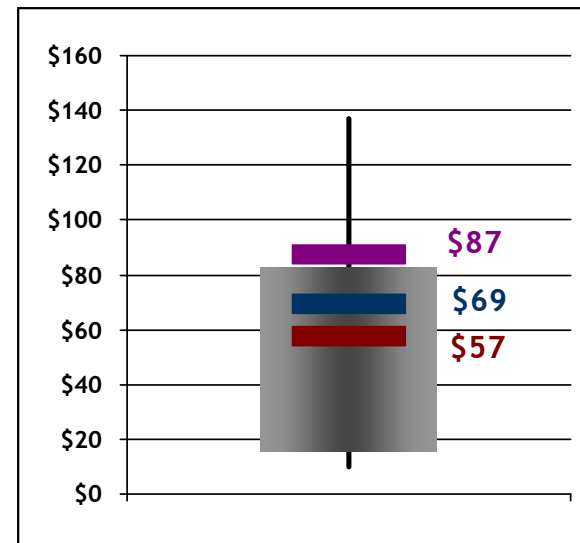
Cost per Function Point

Still a key ratio for measuring cost effectiveness in applications, but should not be viewed in and of itself. Size, industry, quality, and maturity all play a role.

**Cost per Function Point
Developed**



**Cost per Function Point
Maintained**



Cylinders denotes the median 50% of responses

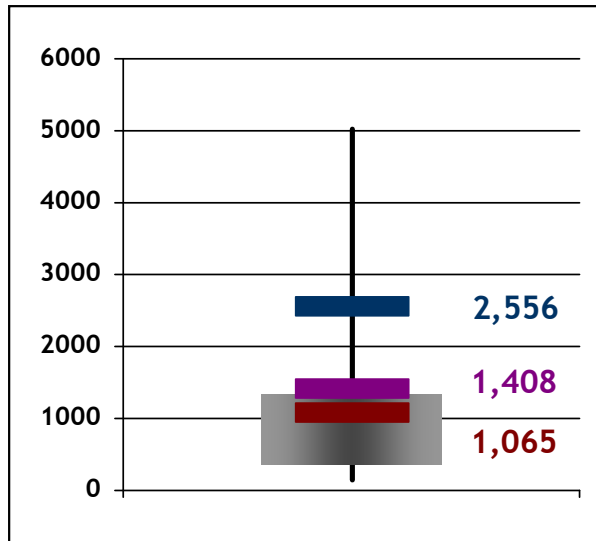
= Range
 = Average
 = North America
 = EMEA
 = Middle Quartiles

Performance Ratios

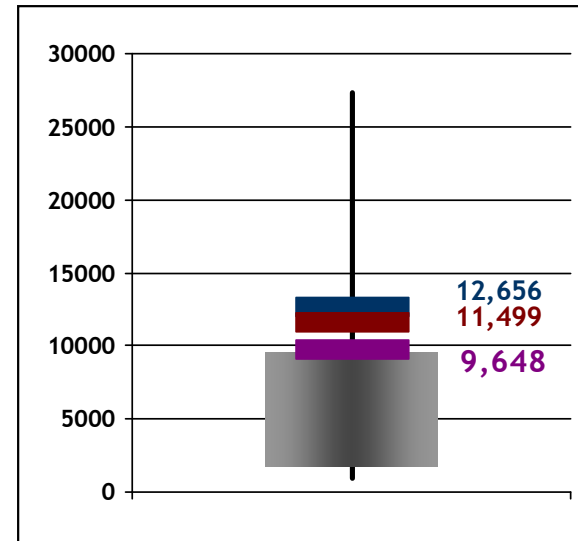
Function Point per FTE

Provides a view of productivity, by comparing key outputs vs. the staff supporting each activity. Again, portfolio size, industry, quality, maturity, and other factors all play a role.

**Function Point per FTE
Developed**



**Function Point per FTE
Maintained**



Cylinders denotes the median 50% of responses

= Range
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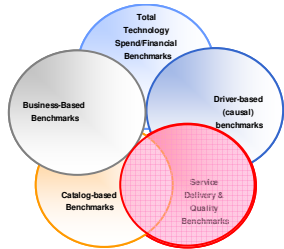
Process and Quality Views

Studies suggest that CMM levels correlate with fewer software defects, the common thinking that detecting defects early, before they enter production can significantly reduce costs.

CMM level	Average defects per function point	Percentage improvement (from previous level)	Cost savings per 100 function points, at U.S. labor rates	Cost savings per 100 function points, at offshore labor rates
1	0.750	—	—	—
2	0.620	17.33	\$14,560	\$6,240
3	0.475	23.34	\$16,240	\$6,960
4	0.228	52.00	\$27,664	\$11,856
5	0.100	56.00	\$14,336	\$6,144

Source: Gartner Inc. and the Software Engineering Institute

Service Delivery & Quality Measures and Benchmarks



Enable IT to measure itself as a service provider.

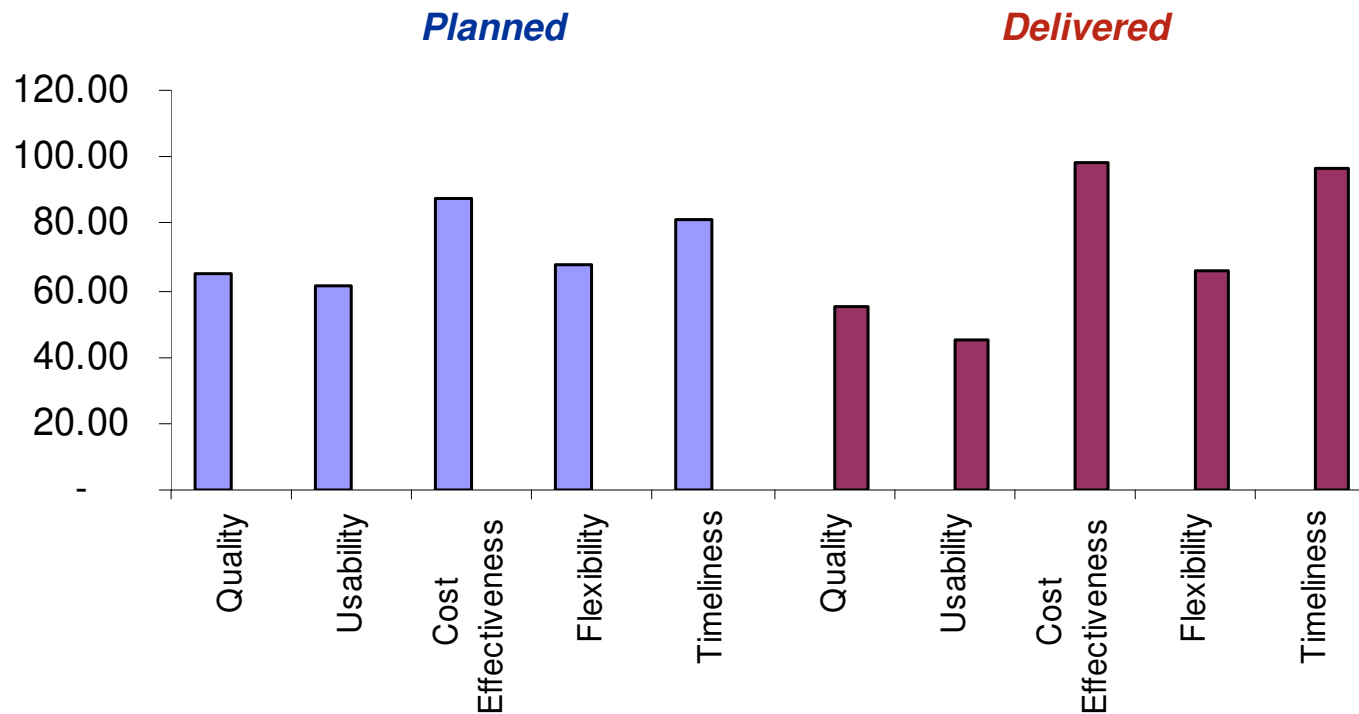
- **Availability**
- **Satisfaction**
- **Applications/Components/Services**

Sample satisfaction measures:

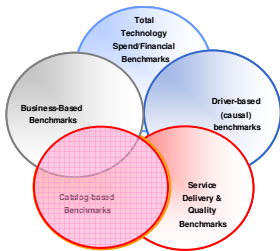
Line of Business	Overall, how satisfied with business applicaitons?					Overall, how satisfied are you with IT?				
	Overall Satisfaction	Reliability	Functionality	Speed	Service Quality	Help Desk	Deskside Support	Desktop/ Laptop	Network/ LAN	Email
Equities	63%	63%	61%	64%	67%	64%	64%	63%	66%	64%
Finance	64%	66%	66%	67%	67%	67%	64%	64%	65%	65%
Global Securities Financing	60%	63%	63%	63%	65%	64%	63%	62%	64%	63%
Institutional Business	49%	48%	45%	49%	61%	65%	64%	64%	65%	65%
Legal Counsel	62%	64%	64%	64%	66%	63%	62%	64%	65%	66%
Marketing	64%	64%	62%	63%	65%	62%	64%	63%	65%	67%
Operations	63%	63%	61%	64%	65%	64%	64%	63%	66%	64%

Applications Service Delivery Components

On average, applications are 10% over budget, and 8% beyond estimated timing, but that's not the full story – quality, usability as well as other factors should be considered.



Catalog-based Benchmarks



Product and service catalogs are the new basis for the business of IT — they are the foundation for transparency, engineering usage, IT marketing, and communication.

Catalogs and benchmarks typically include:

- **Unit costs/Prices**
- **Service Levels**
- **Service Coverage**
- **Service Organization/Orientation**

Service Description	Service Hours EST	Service Availability Outage Time Not To Exceed	Price	Benchmark Price	Fixed vs Variable Pricing Available
High Availability AS/400 Infrastructure Service	Monday through Sunday from 00:00 until 24:00	264 minutes in any given month or 686 minutes during a consecutive 3 month period.		\$4225 per Server Month	F
MQSeries Service allows applications to use message queuing to participate in message-driven processing.	Monday through Sunday from 00:00 until 24:00	264 minutes in any given month or 686 minutes during a consecutive 3 month period.		\$115 per Month	V

Products and services catalogs are usually evolutionary — and their implementation should be planned carefully

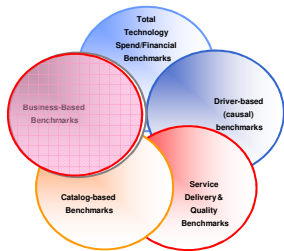
Internal Costs vs. Internal Pricing

There are many reasons to choose outsourcing and off-shoring support – prices may be appealing but quality, service levels, etc. should be understood clearly as well as your own internal capabilities.

Sample Catalog Rate Card

Job Title	NYC	LONDON	TOKYO	OFFSHORE
Analyst	\$ 60	\$ 61	\$ 69	\$ 19
Developer	\$ 59	\$ 59	\$ 66	\$ 19
Project Manager	\$ 73	\$ 73	\$ 80	\$ 25
Senior Developer	\$ 66	\$ 65	\$ 74	\$ 21

Business-based Benchmarks



Help link IT activity with business direction to promote alignment and communicate value in business terms.

- Technology Cost of Goods
- Technology Value of Goods
- Technology Innovation Value
- Technology Agility

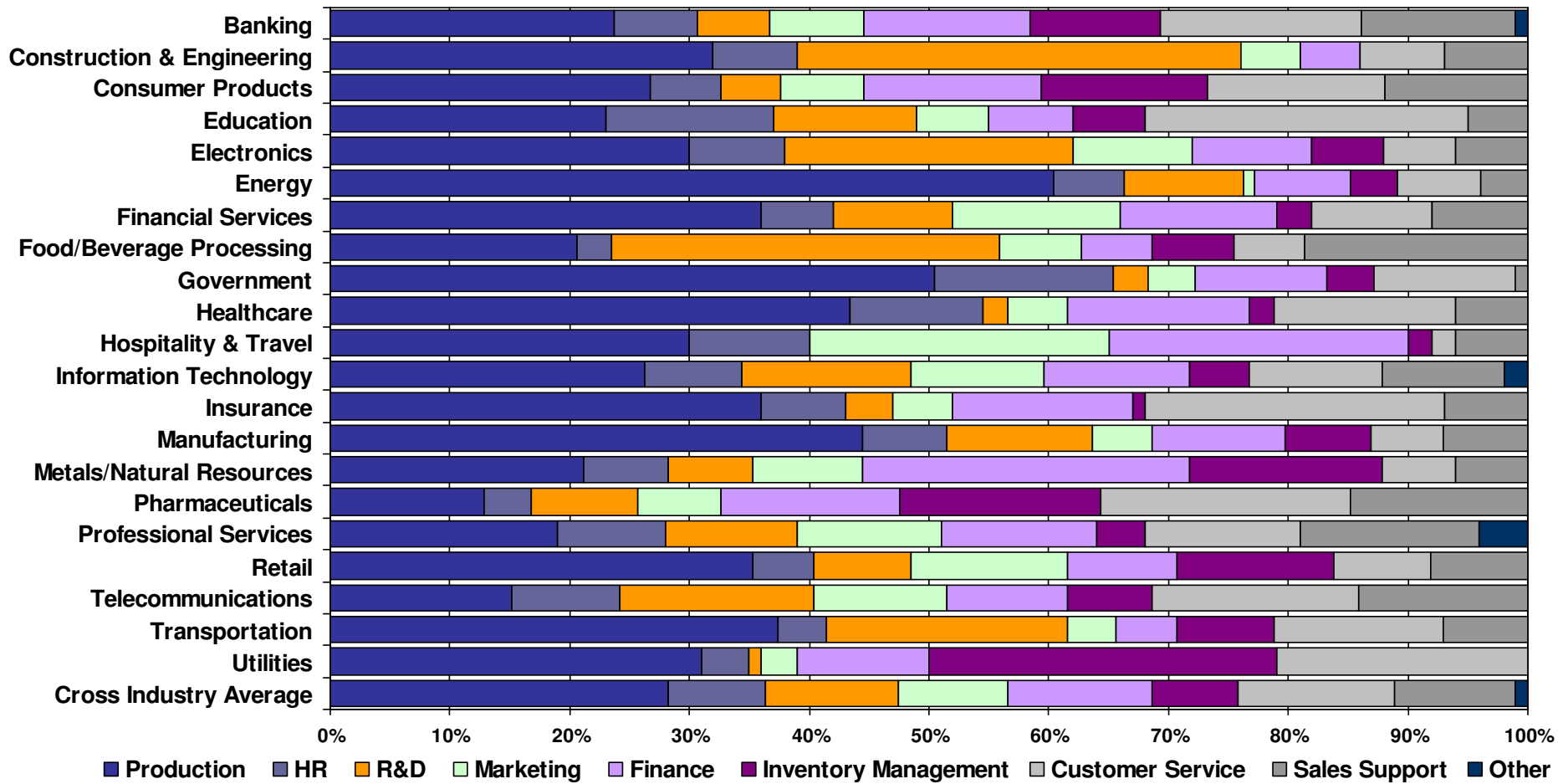
Sample Technology Cost of Goods Analysis:

Product Name	Mkt. Cost	Mkt Ops. IT
FX and Mone Markets		
Foreign Exchange		
Interbank Foreign Exchange	\$ 6.70	\$ 1.90
Corporate Foreign Exchange	\$ 15.00	\$ 3.10
NDF's	\$ 16.80	\$ 2.00
Foreign Exchange Totals	\$ 8.50	\$ 2.20
Currency Options		
Vanilla Currency Options	\$ 58.20	\$ 12.90
Exotic Currency Options	\$ 78.90	\$ 12.40
Interbank Currency Options	\$ 54.60	\$ 10.50
Corporate Currency Options	\$ 84.20	\$ 15.40
Currency Options Totals	\$ 57.80	\$ 10.40
Money Markets		
Interbank Money Markets	\$ 29.10	\$ 6.60
Corporate Money Markets	\$ 30.40	\$ 6.30
CD Issues	\$ 283.80	\$ 10.90
Money Markets Totals	\$ 30.60	\$ 6.50
Totals for FX and Money Markets	\$ 657.70	\$ 82.00

Communicating Business and IT Alignment: Business Process Investment

Communicating IT spending in business terms.

IT Spending Distribution by Business Process Area



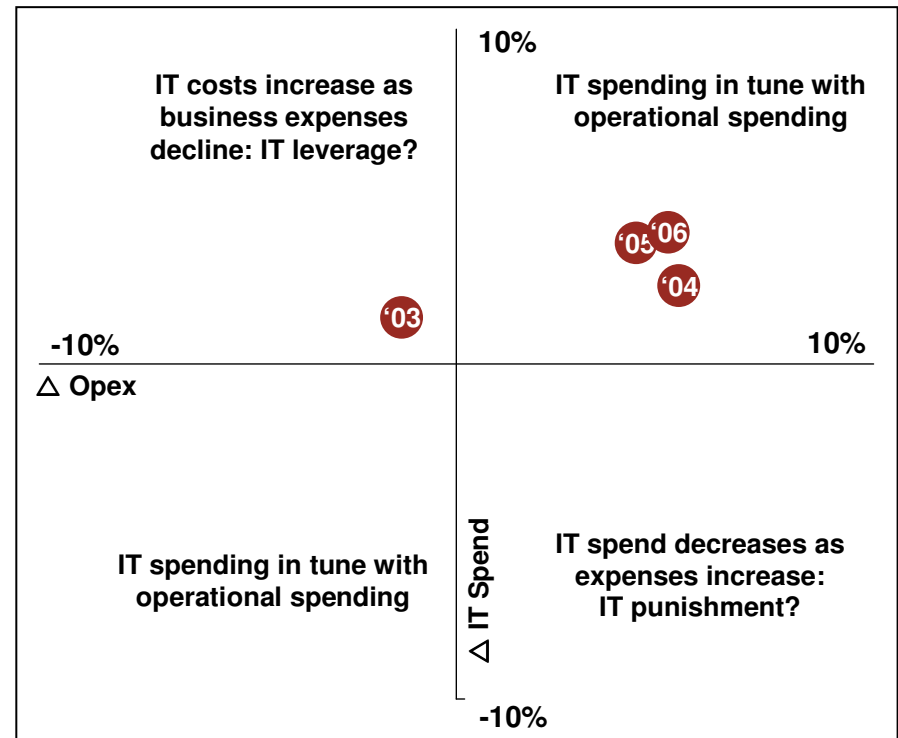
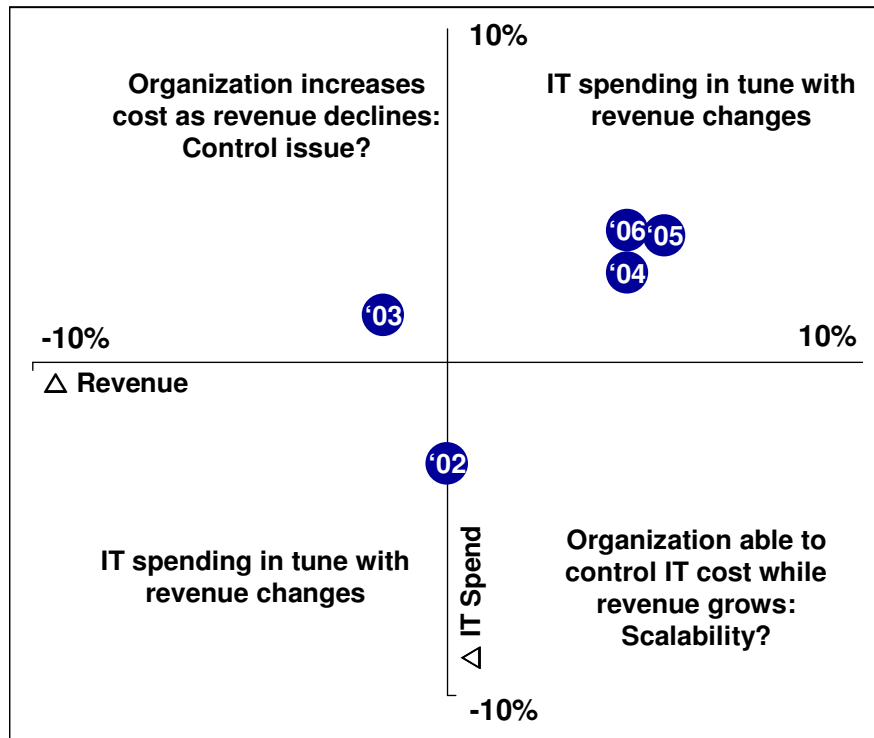
Source: Gartner Worldwide IT Benchmark Service

Communicating Business and IT Alignment: Technology Agility

Mapping IT investment to changes in competitive landscape and business pressures helps organizations communicate IT alignment.

Preliminary 2006 View - Cross-Industry:

Change In IT Spending VS. Change In Revenue and Operational Expenses.

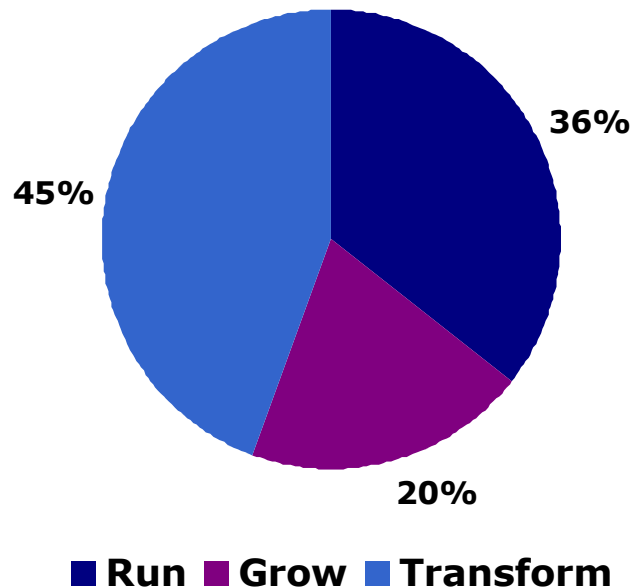


Source: Gartner Worldwide IT Benchmark Service

Communicating on the Strategic Role of Applications

While total IT costs typically show a larger focus on “run” costs, applications may often have higher discretionary components, increasing focus on growth and transformational activities.

Applications spending on Running, Growing, and Transforming the Business.



Run the Business Cost:

This is an indicator of how much of the IT resource is consumed and focused on the continuing operation of the business. It includes all non-discretionary expense as part of the Run the Business Cost.

Grow the Business Cost:

This is an indicator of how much of the IT resource is consumed and focused on developing and enhancing IT systems in support of business growth (typically organic growth). Discretionary investments are included in the Grow the Business Cost.

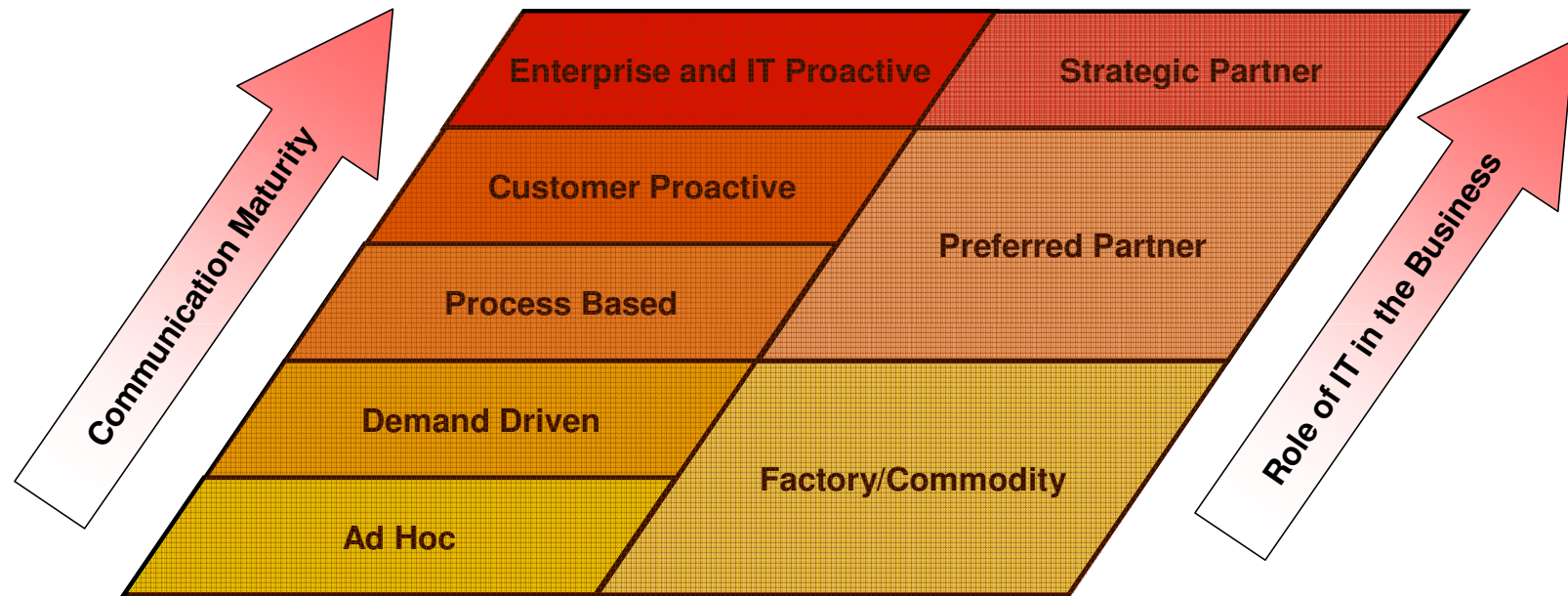
Transform the Business Cost:

is an indicator of how much of the IT resource is consumed and focused on implementing technology systems that enable the enterprise to enact new business models. This is very much a "venture" category and would be represented by activities such as the e-investments in the late 1990's

Source: Gartner Worldwide IT Benchmark Service

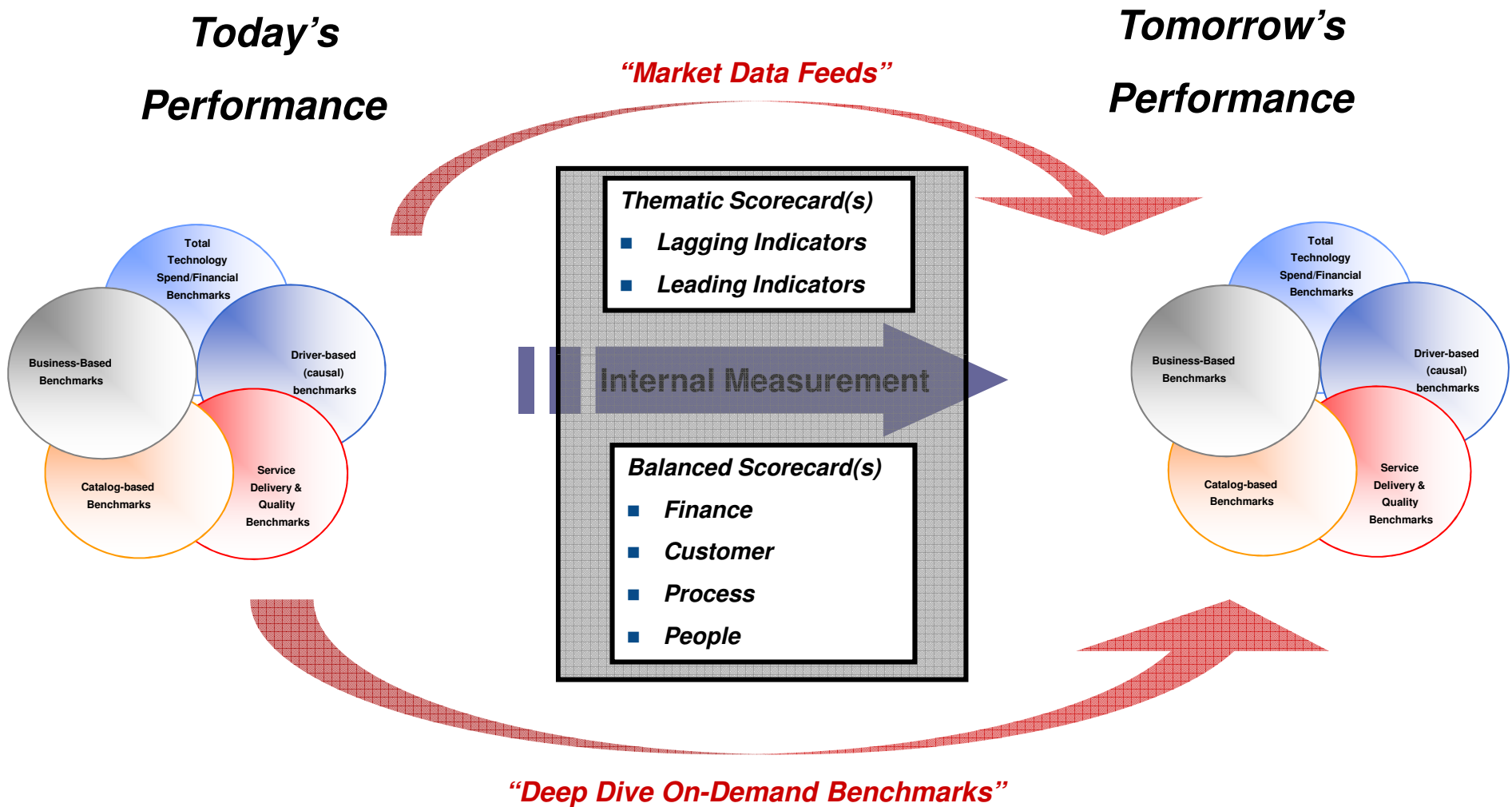
Communicating Performance

Organizations that communicate proactively, and in business terms, are better prepared for business change and participate more actively in strategic business decisions.

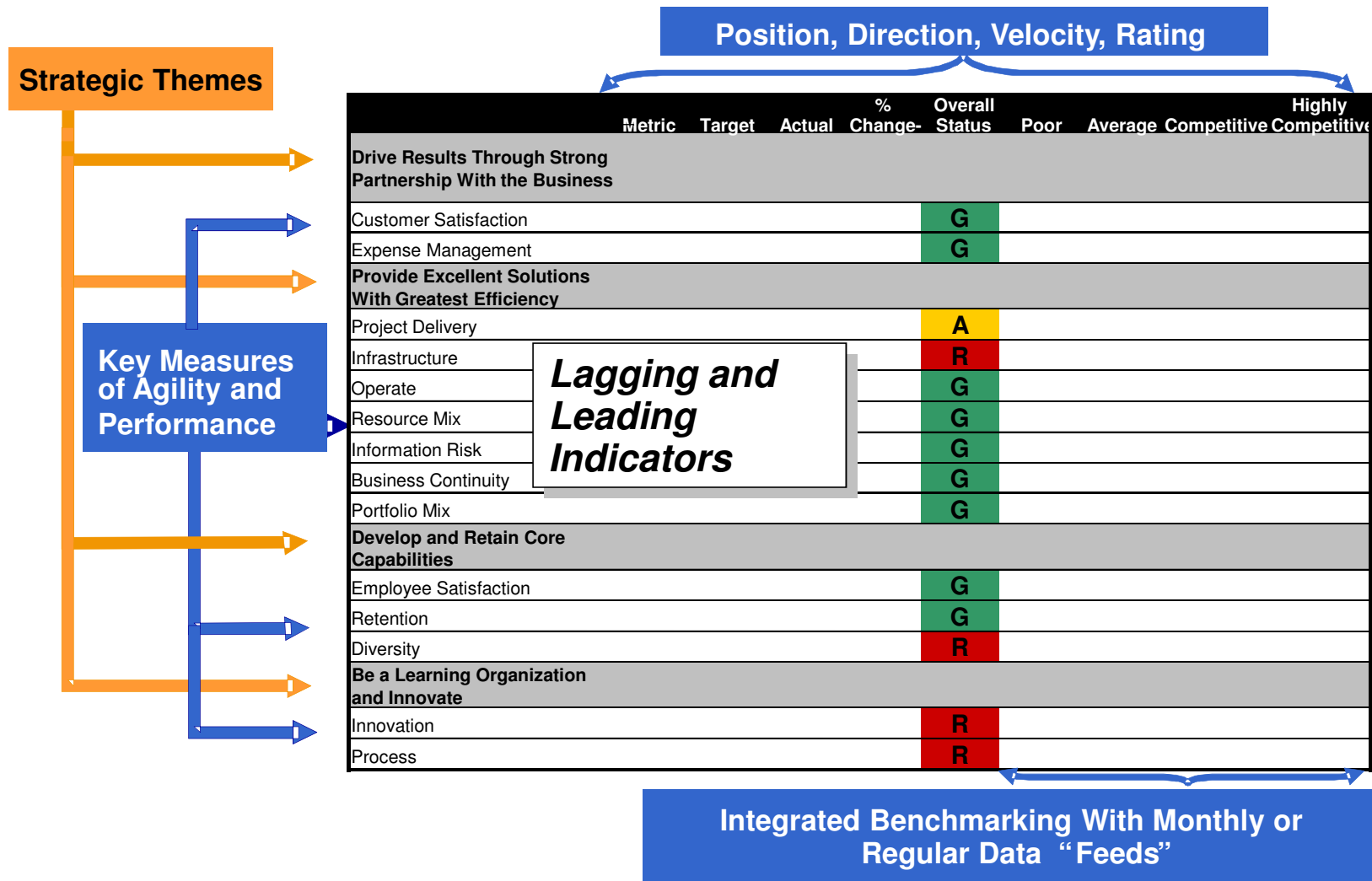


According to 2004 research conducted by Dr. Howard Rubin, 60% of organization fall in the “Ad Hoc” category, with no formalized internal communication plan – the majority of these (72%) indicated that having a formalized plan would have reduced the severity of decisions made for IT by the business.

Strategic Performance Management with Measurement & Benchmarking



Telling the Story With Integrated Benchmarking



What Are the Absolute Best Practices for Results-Oriented Benchmarking?

- Start with the story, not the metrics — in context of:
 - Audience and decisions they make
 - Linkage to performance management programs
 - Linkage to business communication/internal marketing programs (e.g., key business themes)
 - Performed at time when decisions are made: Monthly, quarterly, annually — can vary by measure
- Benchmark in context:
 - Business alignment: Industry peers
 - Infrastructure: Size/complexity
 - Applications: Portfolio Size & Complexity, Industry, Maturity
- Use of “balanced” scorecards:
 - Leading and lagging indicators
 - Integrated benchmarking with data “feeds”
 - Cost and price benchmarking
- Thematic scorecards:
 - Balanced scorecard inverted in support of strategic themes
 - Integrated with IT marketing and communication programs
 - Linked to self-benchmarking product and service catalogs

Wrap- Up

- Strategic Performance Management
 - Know your audience(s) and the information they need to make decisions.
 - Maintain “sense and respond” capabilities with ongoing assessment of technology (internal and external) solutions and the business environment.
 - Provide cost efficient solutions while maintaining required service levels.
 - Communicate performance and products/solutions proactively.

Striving for World-Class: What Next?

- Assess what you are measuring today
 - Are you communicating effectively with your audiences?
 - Do you have both leading and lagging indicators?
 - Are you measuring agility?
- Understand the economics
 - Are your operations transparent?
 - Do you have a product and service catalog?
 - Can you distinguish between fixed and variable?
- Assess your IT communication program
 - IT communication is essential to create value from IT
 - Do you have dashboards or other communications in place?
 - Go “thematic” before “balanced”
- Assess how you benchmark
 - If it’s not integrated, it’s not effective
 - Look at market basket and TCOGS measures
 - Identify the data feeds you need

Gartner Resources and Materials

- Contact Information: Jed.Rubin@gartner.com
- Benchmarking offerings
 - 2005 Worldwide IT Benchmark Report (2006 to be released soon).
 - Worldwide IT Benchmark Service
 - Gartner Consulting Benchmarking Practice
- Link to Gartner Consulting:

<http://www.gartner.com/it/products/consulting/benchmarking.jsp>

To participate in surveys for FREE benchmark data:
www.gartner.com/surveys