



# **Metrics and Financial Evaluation**

# Assignment

- 1) Balanced scorecard for the firm as a whole and each customer tier individually.
- 2) Financial evaluation of the merits of the strategy - An MPV as a measure of the economic value created. The role of the intelligent budget.
- 3) Reflections on granular metrics - Identification of the critical indicators that should be subject to a variability analysis.

# The Delta Model - The Complete Framework

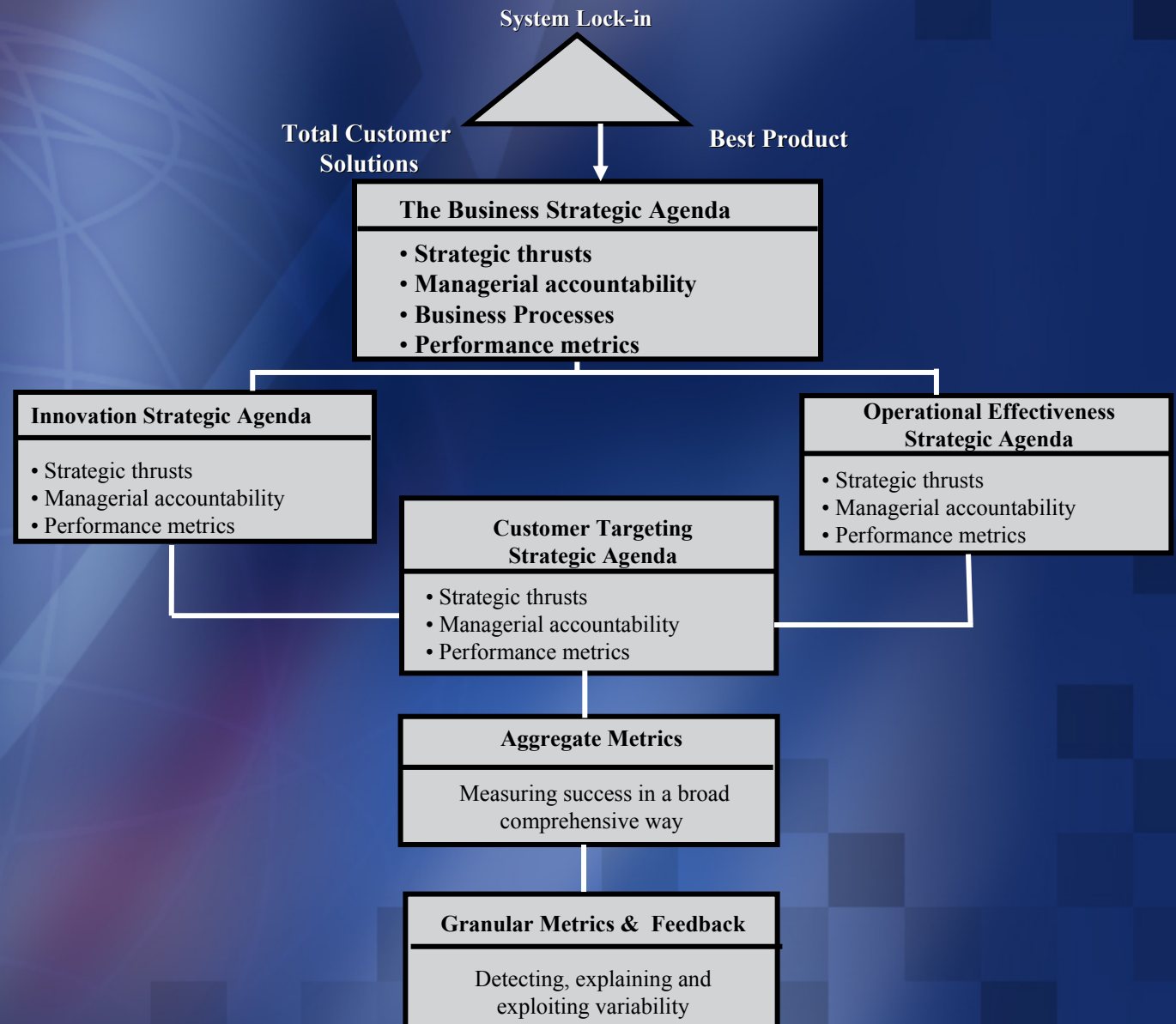
1. The Triangle- choosing the strategic position

2. The business Strategic Agenda-translating strategic positioning into execution

3. The Adaptive Processes-translating execution into concrete tasks

4. Aggregate Metric- the overall scorecard of business performance

5. Granular Metrics- de-averaging, explaining and exploiting variability



# Performance Metrics for the Business Drivers of the Delta Model

	Best Product	Total Customer Solutions	System Lock-In
Operational Effectiveness (Cost Drivers)	<ul style="list-style-type: none"> <li>• Cost performance                             <ul style="list-style-type: none"> <li>- Unit cost</li> <li>- Lifecycle cost</li> <li>- Variable and total cost</li> </ul> </li> <li>• Cost drivers</li> <li>• Quality performance</li> <li>• Degree of differentiation</li> </ul>	<ul style="list-style-type: none"> <li>• Customer value chain                             <ul style="list-style-type: none"> <li>- Total cost</li> <li>- Total revenue and profit</li> </ul> </li> <li>▪ Customer economic drivers</li> <li>• Impact on customer profit due to our service vs. competitors</li> </ul>	<ul style="list-style-type: none"> <li>• Description of system infrastructure</li> <li>▪ Total system costs/revenues</li> <li>▪ Complementor's investments and profits</li> <li>• Complementor costs of adhering to your standard</li> <li>• System performance drivers</li> </ul>
Customer Targeting (Profit Drivers)	<ul style="list-style-type: none"> <li>• Product market share</li> <li>• Channel cost</li> <li>• Product profit                             <ul style="list-style-type: none"> <li>- By product type</li> <li>- By offer</li> <li>- By channel</li> </ul> </li> <li>• Profit drivers</li> </ul>	<ul style="list-style-type: none"> <li>• Customer share</li> <li>▪ Customer retention</li> <li>▪ Our profitability by customer                             <ul style="list-style-type: none"> <li>- Individual and by segment</li> </ul> </li> <li>• Customer bonding                             <ul style="list-style-type: none"> <li>- Switching costs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• System market share</li> <li>▪ Our share of complementors                             <ul style="list-style-type: none"> <li>- % of investments tied to our proprietary standard</li> </ul> </li> <li>• Our profit by complementor</li> </ul>
Innovation (Renewal Drivers)	<ul style="list-style-type: none"> <li>• Rate of product introduction</li> <li>• Time to market</li> <li>• Percent of sales from new products</li> <li>• Cost of product development</li> <li>• R&amp;D as % of sales</li> </ul>	<ul style="list-style-type: none"> <li>• Relative involvement in customer value chain</li> <li>▪ Percentage of product development                             <ul style="list-style-type: none"> <li>- From joint development</li> <li>- Customized</li> </ul> </li> <li>• Degree of product scope                             <ul style="list-style-type: none"> <li>- Current vs. potential bundling</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Switching costs for complementors and for customers</li> <li>▪ Rate of product development</li> <li>• Cost of competitors to imitate standard</li> </ul>



# **The Balanced Scorecard**

# Balanced Score Card Dimensions

Balanced Scorecard Framework	Financial Perspective (Shareholder Look)	Business Process (Operational Effectiveness)	Organizational Learning (Technology)	Customer Perspective (Customer Targeting)
<b>Company</b>	<ul style="list-style-type: none"> <li>• Volume, revenue, earning, gross margin by tech. segment and/or market segment (actual vs. plan).</li> <li>• Revenue and earnings by geographical segment (China, US &amp; Japan).</li> <li>• Revenue and earnings by business domain (Capital, Industrial &amp; Government).</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity utilization by engineer idle time.</li> <li>• Saving derived from six sigma productivity.</li> <li>• Six sigma GB/BB/MBB penetration.</li> <li>• Budget vs. plan (facility in China, US &amp; Japan0).</li> <li>• Number of employees passing language tests.</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of sales from new tech. domain by market segment.</li> <li>• Training as percent of sales.</li> <li>• ERP/CRM/ Collaboration Tool implementation timeline.</li> </ul>	<ul style="list-style-type: none"> <li>• Customer market share by tier.</li> <li>• Profitability by customer tier.</li> <li>• Customer satisfaction by tier.</li> </ul>

## Balanced Score Card Dimensions (cont'd.)

Balanced Scorecard Framework	Financial Perspective (Shareholder Look)	Business Process (Operational Effectiveness)	Organizational Learning (Technology)	Customer Perspective (Customer Targeting)
<p><b>Tier 1</b>  <b>Exclusive Partner</b>                      Japanese companies requiring outsourcing of mainframe applications</p>	<ul style="list-style-type: none"> <li>• Volume, revenue, earning, gross margin by individual clients (actual vs. plan).</li> <li>• Year over year sales and earnings growth by individual clients (actual vs. plan).</li> <li>• Return on Business Relationship investment.</li> <li>• ROI on mainframe total investment.</li> </ul>	<ul style="list-style-type: none"> <li>• Cost to serve clients.</li> <li>• Savings derived from six sigma joint projects with clients.</li> <li>• Budget vs. plan (facility in Japan).</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage revenue from projects using in-house IBM Mainframe.</li> <li>• Percentage revenue from projects using client IBM Mainframe.</li> <li>• Number of clients on DMK ERP.</li> </ul>	<ul style="list-style-type: none"> <li>• Value-added from six sigma.</li> <li>• ACFC (GE "At Customer for Customer") initiatives.</li> <li>• Process reengineering.</li> <li>• Joint revenue/earnings from complementor relationship (customer ROI).</li> <li>• Customer satisfaction with:                             <ul style="list-style-type: none"> <li>- Project deliverables.</li> <li>- Relationship</li> </ul> </li> </ul>

## Balanced Score Card Dimensions (cont'd.)

Balanced Scorecard Framework	Financial Perspective (Shareholder Look)	Business Process (Operational Effectiveness)	Organizational Learning (Technology)	Customer Perspective (Customer Targeting)
<p><b>Tier 2</b>  <b>Strategic/Integrated Partner</b>                      Long term, symbiotic partnership with client resulting in high value to both parties</p>	<ul style="list-style-type: none"> <li>• Volume, revenue, earning, gross margin by individual clients (actual vs. plan).</li> <li>• Year over year sales and earnings growth by individual clients (actual vs. plan).</li> <li>• Return on Business Relationship investment.</li> </ul>	<ul style="list-style-type: none"> <li>• Cost to serve clients.</li> <li>• Savings derived from six sigma joint projects with clients.</li> <li>• Budget vs. plan (facility in Japan, US, China).</li> <li>• Percentage revenue from sales derived from DWH.</li> </ul>	<ul style="list-style-type: none"> <li>• Number of clients on DMK ERP.</li> <li>• ROI on EAI initiatives.</li> <li>• ROI on collaboration tools per selected client.</li> <li>• ROI and percentage revenue on center of excellence establishment.</li> </ul>	<ul style="list-style-type: none"> <li>• Value-added from six sigma.</li> <li>• ACFC (GE "At Customer for Customer") initiatives.</li> <li>• Process reengineering.</li> <li>• Joint revenue/earnings from complementor relationship (customer ROI).</li> <li>• Customer satisfaction with:                             <ul style="list-style-type: none"> <li>- Project deliverables.</li> <li>- Relationship</li> </ul> </li> </ul>



## Balanced Score Card Dimensions (cont'd.)

Balanced Scorecard Framework	Financial Perspective (Shareholder Look)	Business Process (Operational Effectiveness)	Organizational Learning (Technology)	Customer Perspective (Customer Targeting)
<p><b>Tier 3</b>  <b>Project Solutions Seeker</b>            Full project ownership and solution delivery responsibility without established (but with opportunity for establishing) a long term client relationship.</p>	<ul style="list-style-type: none"> <li>• Volume, revenue, earning, gross margin by individual clients (actual vs. plan).</li> <li>• Return on marketing investment.</li> <li>• Percentage revenue from clients moved into Tier 3.</li> </ul>	<ul style="list-style-type: none"> <li>• Marketing cost per client.</li> <li>• ROI on collaboration initiatives.</li> <li>• Percentage revenue, volume, earnings by channel:               <ul style="list-style-type: none"> <li>- referral by clients</li> <li>- referral by JBCC</li> <li>- direct: pull &amp; push</li> <li>- cross selling</li> </ul> </li> <li>• Cost of training per project.</li> </ul>	<ul style="list-style-type: none"> <li>• ROI on collaboration tools per selected client.</li> <li>• ROI on software license per project.</li> </ul>	<ul style="list-style-type: none"> <li>• Cost to serve clients per channel.</li> <li>• Customer satisfaction with:               <ul style="list-style-type: none"> <li>- Project deliverables.</li> <li>- Relationship</li> </ul> </li> </ul>

## Balanced Score Card Dimensions (cont'd.)

Balanced Scorecard Framework	Financial Perspective (Shareholder Look)	Business Process (Operational Effectiveness)	Organizational Learning (Technology)	Customer Perspective (Customer Targeting)
<p><b>Tier 4</b>  <b>Body Shopper</b>                      Transactional relationship to provide supplemental staff without much end client relationship</p>	<ul style="list-style-type: none"> <li>• Volume, revenue, earning, gross margin by individual clients (actual vs. plan).</li> <li>• ROI per head.</li> <li>• Percentage revenue from new clients.</li> </ul>	<ul style="list-style-type: none"> <li>• Time to complete the transaction from start to finish per project.</li> <li>• ROI on collaboration initiatives.</li> <li>• Percentage revenue, volume, earnings by channel:                             <ul style="list-style-type: none"> <li>- referral by clients</li> <li>- referral by JBCC</li> <li>- direct: pull &amp; push</li> <li>- cross selling</li> </ul> </li> <li>• Cost of training per project.</li> </ul>	<ul style="list-style-type: none"> <li>• Cost of collaboration tool to facilitate knowledge transfer.</li> </ul>	<ul style="list-style-type: none"> <li>• Cost to serve clients per channel.</li> <li>• Customer satisfaction with:                             <ul style="list-style-type: none"> <li>- Project deliverables.</li> <li>- Relationship</li> <li>- Cost</li> </ul> </li> </ul>



# The Budget

## Strategic Funds Programming and Operational Budgets — An Illustration

	History					Current Year		Projections			
	1988	1989	1990	1991	1992	Actual	Budget	1994	1995	1996	1997
<b>Total Market</b>	4,032	4,994	5,822	6,722	7,820	0	9,266	11,120	13,123	16,012	19,312
<b>Market Share (%)</b>	52	51	52	49.0	49	0	49	50	50	51	52
<b>Company Sales</b>	2,083	2,568	3,002	3,316	3,799	0	4,502	5,522	6,577	8,123	9,966
— Operating Cost of Goods Sold	1,789	2,138	2,499	2,771	3,165	0	3,760	4,612	5,492	6,789	8,336
<b>Gross Operating Margin</b>	294	430	503	545	634	0	742	910	1,085	1,334	1,630
— Operating SG&A	62	103	110	121	138	0	162	199	241	295	366
<b>Operating Margin</b>	232	327	393	424	496	0	580	711	844	1,039	1,264
— Strategic Expenses	130	165	204	213	251	0	321	396	497	626	789
<b>SBU Margin</b>	102	162	189	211	245	0	259	315	347	413	475
— Taxes	5	18	23	27	32	0	35	43	56	70	93
<b>SBU Net Income</b>	97	144	166	184	213	0	224	272	291	343	382
+ Depreciation	18	21	26	32	38	0	46	56	67	82	100
— Capital Investments	32	57	87	128	115	0	150	195	169	202	183
— Increases in Working Capital	0	0	0	0	0	0	0	0	0	0	0
<b>Contribution/Request of Funds to the Corporation</b>	83	108	105	88	136	0	120	133	189	223	299

## Splitting the Profit and Loss Statement of a Division in Terms of Operational and Strategic Expenses

	Conventional Expenses	Operational Expenses	Strategic Expenses
<b>Sales Revenue</b>	100	100	
Less:			
Labor	50	45	5
Variable costs	10	7	3
Fixed costs	15	5	10
<b>Gross Margin</b>	25	33	
Less:			
Marketing expenses	2	1.5	0.5
Admin. expenses	8	6	2
Training expenses	3	2	1
<b>Division Margin</b>	12		
<b>Operating margin</b>		23.5	
<b>Total strategic expenses</b>			11.5

# Strategic Funds Programming and Operational Budgets

## Historical and projected P/L

	History			Current	Projections		
	2001	2002	2003	2004	2005	2006	2007
<b>Sales Revenue</b>	<b>13.00</b>	<b>16.00</b>	<b>18.00</b>	<b>20.00</b>	<b>23.00</b>	<b>26.00</b>	<b>30.00</b>
Operating COGS	8.61	10.15	10.50	10.33	11.20	11.90	12.60
<b>Gross Operating Margin</b>	<b>4.39</b>	<b>5.85</b>	<b>7.50</b>	<b>9.68</b>	<b>11.80</b>	<b>14.10</b>	<b>17.40</b>
Operating SG&A	3.69	4.35	4.50	4.43	4.80	5.10	5.40
<b>Operating Margin</b>	<b>0.70</b>	<b>1.50</b>	<b>3.00</b>	<b>5.25</b>	<b>7.00</b>	<b>9.00</b>	<b>12.00</b>
Strategic Expenses	0.20	0.25	0.50	0.88	2.00	3.38	5.50
<b>EBITA</b>	<b>0.50</b>	<b>1.25</b>	<b>2.50</b>	<b>4.38</b>	<b>5.00</b>	<b>5.64</b>	<b>6.50</b>
Taxes	0.10	0.25	0p.50	0.88	1.00	1.13	1.30
<b>Net Income</b>	<b>0.40</b>	<b>1.00</b>	<b>2.00</b>	<b>3.50</b>	<b>4.00</b>	<b>4.50</b>	<b>5.20</b>

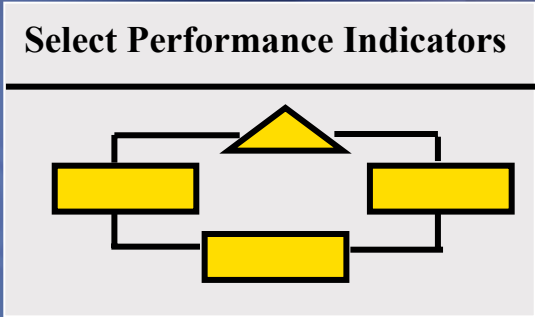
## Growth Ratio

	History			Current	Projections		
	2001	2002	2003	2004	2005	2006	2007
<b>Sales Revenue</b>		<b>+0.23</b>	<b>+0.13</b>	<b>+0.11</b>	<b>+0.15</b>	<b>+0.13</b>	<b>+0.15</b>
Operating COGS		+0.18	+0.03	-0.02	+0.08	+0.06	+0.06
<b>Gross Operating Margin</b>		<b>+0.33</b>	<b>+0.28</b>	<b>+0.29</b>	<b>+0.22</b>	<b>+0.19</b>	<b>+0.23</b>
Operating SG&A		+0.18	+0.03	-0.02	+0.08	+0.06	+0.06
<b>Operating Margin</b>		<b>+1.14</b>	<b>+1.00</b>	<b>+0.75</b>	<b>+0.33</b>	<b>+0.29</b>	<b>+0.33</b>
Strategic Expenses		+0.25	+1.00	+0.75	+1.29	+0.69	+0.63
<b>EBITA</b>		<b>+1.50</b>	<b>+1.00</b>	<b>+0.75</b>	<b>+0.14</b>	<b>+0.13</b>	<b>+0.16</b>
Taxes		+1.50	+1.00	+0.75	+0.14	+0.13	+0.16
<b>Net Income</b>		<b>+1.50</b>	<b>+1.00</b>	<b>+0.75</b>	<b>+0.14</b>	<b>+0.13</b>	<b>+0.16</b>



# Granular Metrics

# The Delta Model and Granular Metrics



## Act from Variability

- Define program
- Define structured tests
- Rollout

## Learn from Variability

- Hypothesize cause and effect
- Evaluation

## Detect Variability

- Drill down to detailed segmentation
- Isolate variability

## Explain Variability

- Identify performance drivers
- Correlate drivers with variability





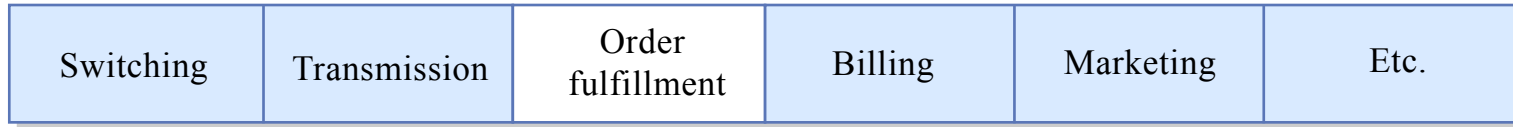
## Drivers of variability for selected performance indicators

Performance indicators	Drivers of variability
Product cost and quality	<ul style="list-style-type: none"> <li>● Scale</li> <li>● Density-e.g. concentration of service</li> <li>● Location</li> <li>● Labor productivity- practices and training</li> <li>● Equipment productivity- design</li> <li>● Process design</li> <li>● And so on</li> </ul>
Customer profit	<ul style="list-style-type: none"> <li>● Customer size</li> <li>● Customer revenue</li> <li>● Tenure</li> <li>● Acquisition cost</li> <li>● Channel mix</li> <li>● Customer care support</li> <li>● Customer investments in relationships</li> <li>● And so on</li> </ul>
Complementor contribution	<ul style="list-style-type: none"> <li>● Size of relevant complementor products</li> <li>● Complementor investment in business</li> <li>● Relative size in customer value chain</li> <li>● Complementor contribution to customer economics</li> <li>● Exclusivity of relationship</li> <li>● And so on</li> </ul>
Business segment economic value	<ul style="list-style-type: none"> <li>● ROI (return on investment) – profitability</li> <li>● Risk- volatility and covariance</li> <li>● Option value</li> <li>● Investment base</li> <li>● Cashflows</li> </ul>

## Experimentation as the basis for effective change

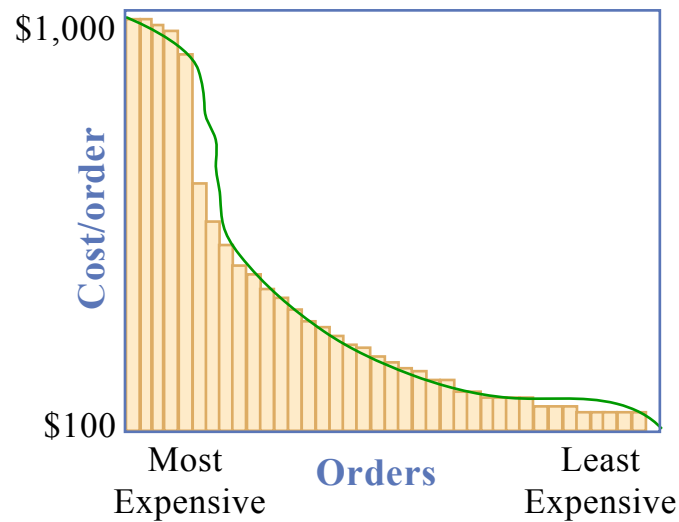
Size of Change	Large	<b>The middle road: lower returns, or unacceptable when first mover advantage is high</b>	<b>Unacceptable risk, as a starting point. Highly desirable as endpoint</b>
	Small	<b>Ineffective: lower returns, or unacceptable when first mover advantage is high</b>	<b>Testing: the relevant area for experiments leading to large change</b>
		Slow	Fast
		Speed of Change	

# 1. The Value Chain of the Local Business Data Circuit

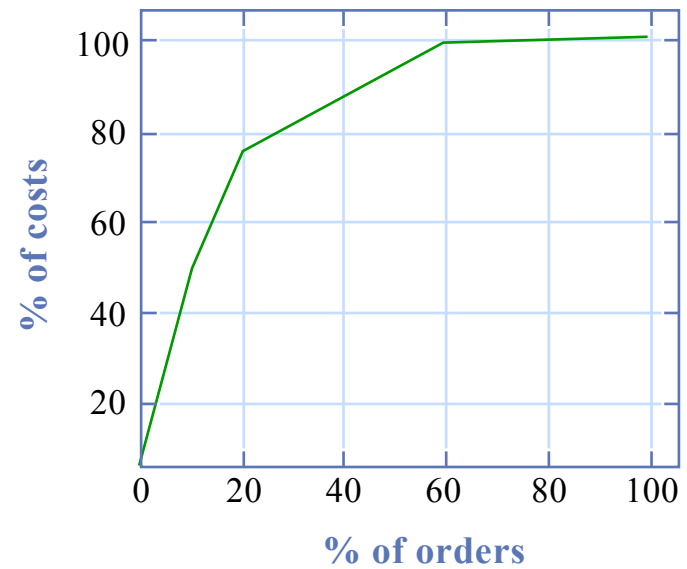


Average Cost = \$395/order

## 2. Individual Order Cost

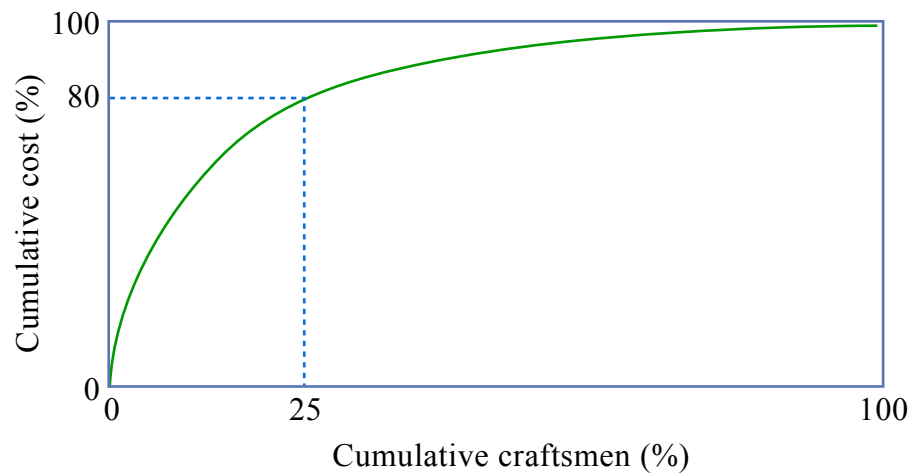
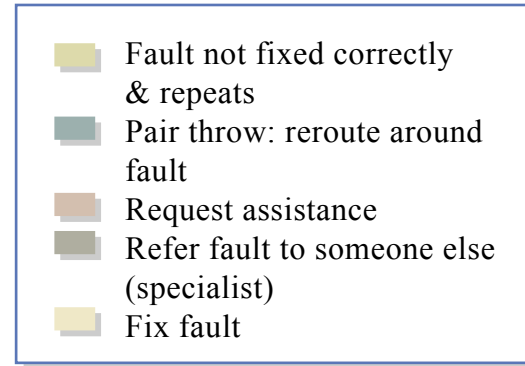
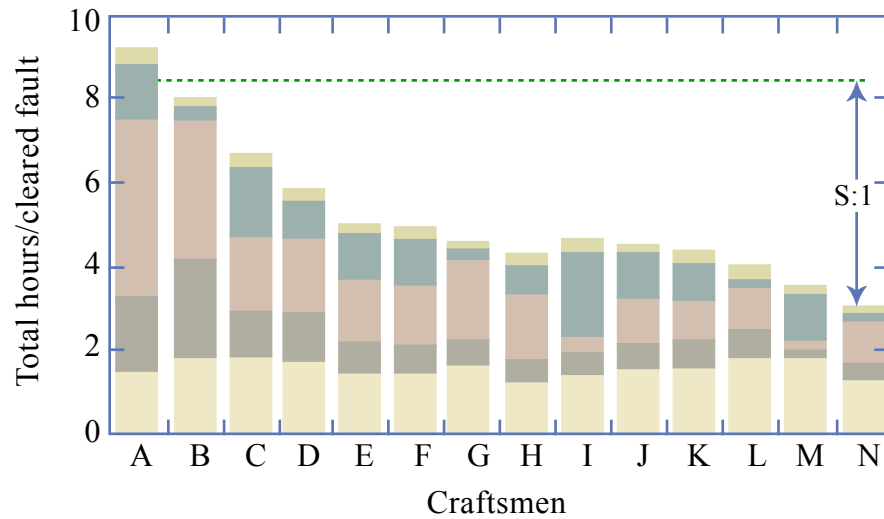


## 3. The 80-20 Cost Effect



THE BEHAVIOR OF COST - THE CASE OF BUSINESS DATA SERVICES

### Craftsmen Efficiency

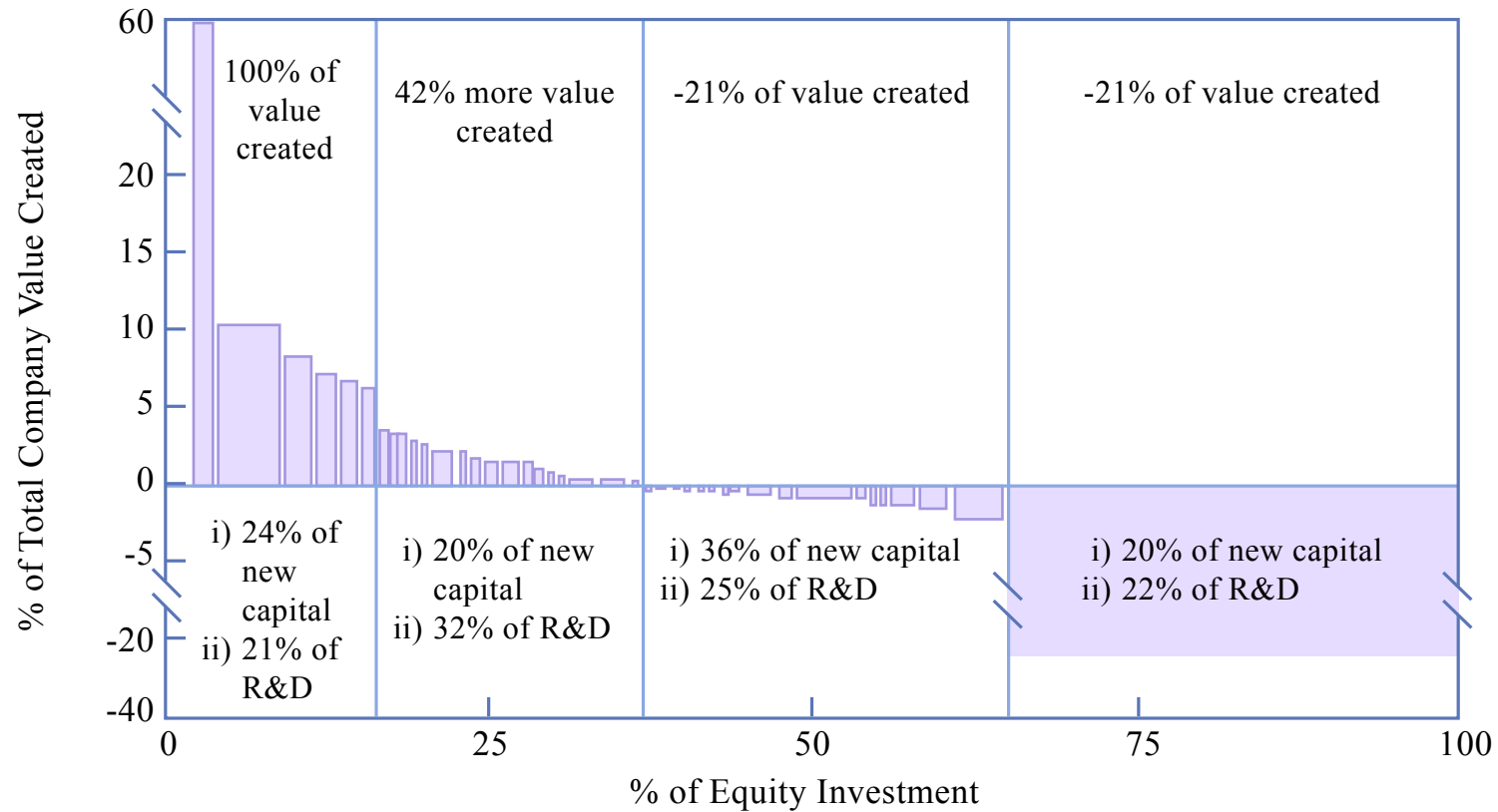


**The Need for Granular Metrics**

THE BEHAVIOR OF COST BY INDIVIDUAL WORKERS

Figure by MIT OCW.

## Value Created by Business Unit



- 1) 6 BUs contribute 100% of value created
- 2) 16 more BUs contribute another 42% of value created
- 3) Those 22 BUs are worth \$ 15.5 billion, on an equity investment of only \$4.2 billion
- 4) 44% of new capital investment and 53% of R&D spending over the next three years is going to BUs earning economic profits
- 5) 56% of new capital investment and 47% of R&D spending are going to BUs that will be generating economic losses

## SOURCES OF VALUE CREATION

# Capital One- achieving a Total Customer Solutions through Customer Targeting

