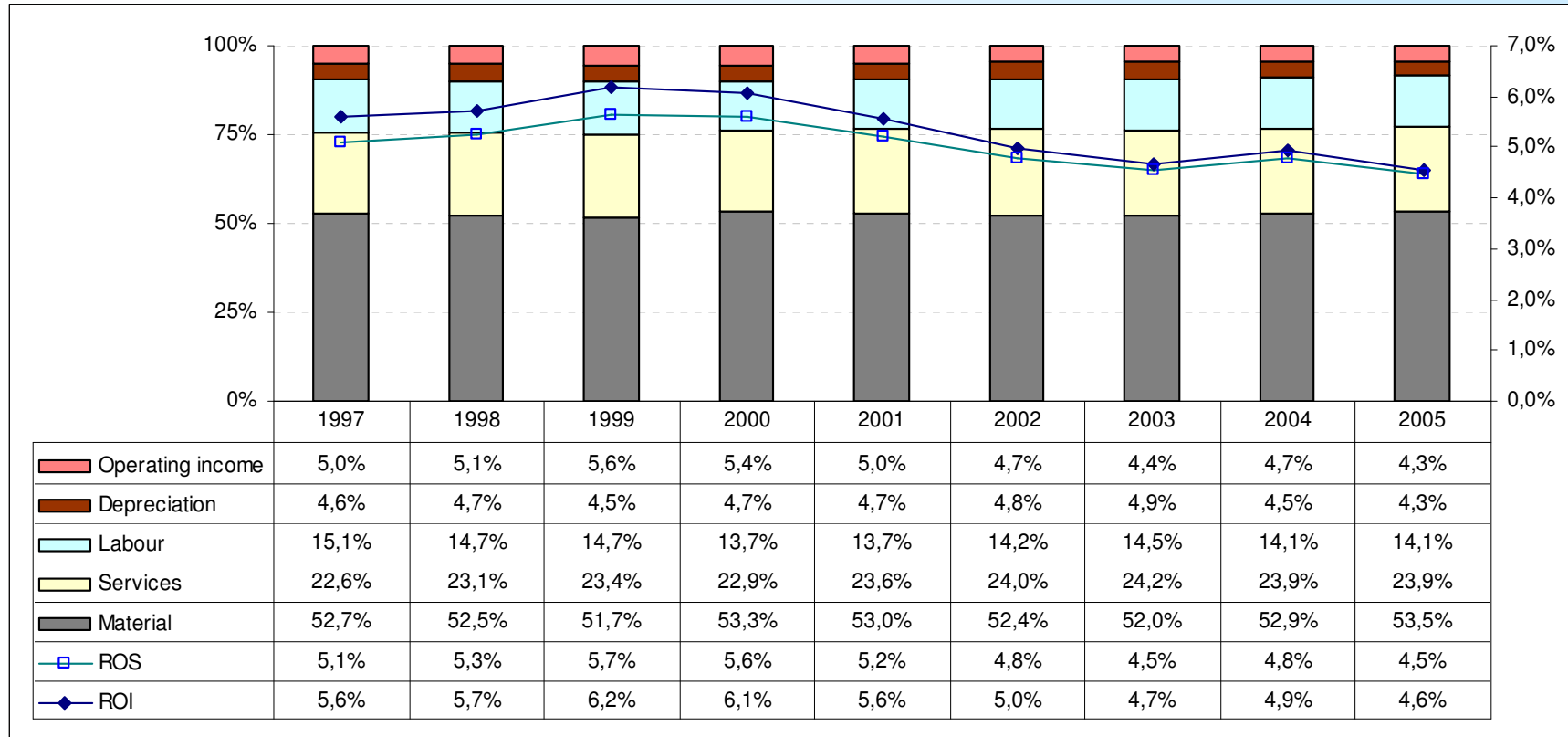# STRATEGIC COST ANALYSIS: FIELD EVIDENCE

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Roadmap

- The relevance of the "cost dimension" in business economics

- Cost, value and cost drivers

- Cost along the value chain

- The practice of cost accounting and management

- Future trends

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Cost Relevance in Italian Manufacturing Industry

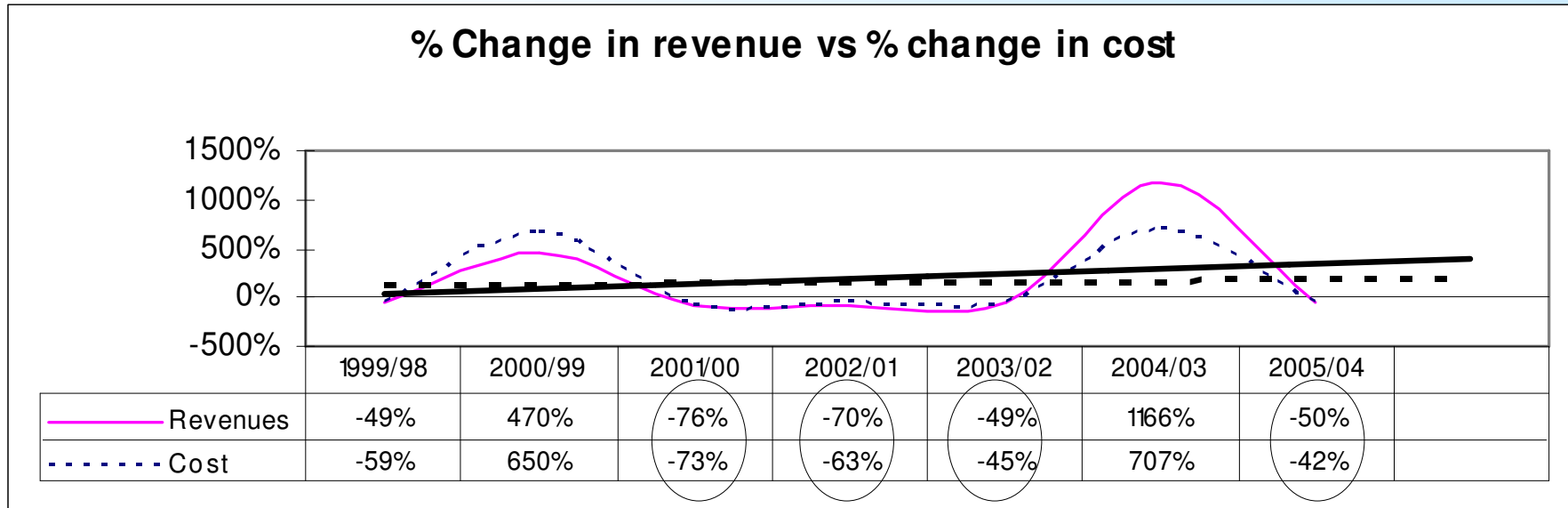|	1997	1998	1999	2000	2001	2002	2003	2004	2005
Operating income	5,0%	5,1%	5,6%	5,4%	5,0%	4,7%	4,4%	4,7%	4,3%
Depreciation	4,6%	4,7%	4,5%	4,7%	4,7%	4,8%	4,9%	4,5%	4,3%
Labour	15,1%	14,7%	14,7%	13,7%	13,7%	14,2%	14,5%	14,1%	14,1%
Services	22,6%	23,1%	23,4%	22,9%	23,6%	24,0%	24,2%	23,9%	23,9%
Material	52,7%	52,5%	51,7%	53,3%	53,0%	52,4%	52,0%	52,9%	53,5%
ROS	5,1%	5,3%	5,7%	5,6%	5,2%	4,8%	4,5%	4,8%	4,5%
ROI	5,6%	5,7%	6,2%	6,1%	5,6%	5,0%	4,7%	4,9%	4,6%

20.533 italian manufacturing companies in K/ €,

Declining and poor profitability
External cost ~77%
Activity cost ~42,3%
Cost vs profitability ratio is very high (~1/22)
External cost vs profitability is very high (~1/18)
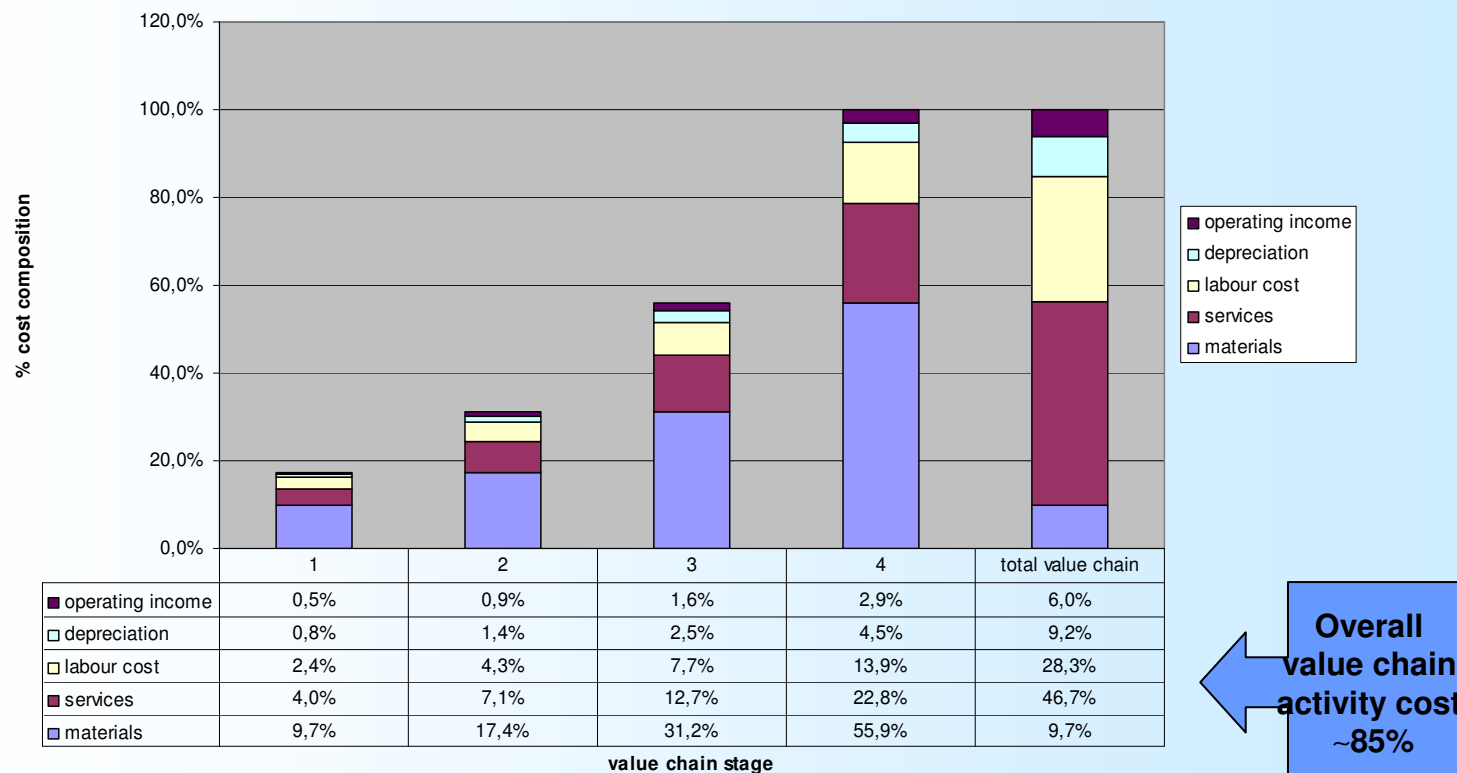**Activity cost vs profitability is high (~1/ 10)**

Cost and performance in the italian manufacturing industry

% Change in revenue vs % change in cost

	1999/98	2000/99	2001/00	2002/01	2003/02	2004/03	2005/04
Revenues	-49%	470%	-76%	-70%	-49%	1166%	-50%
Cost	-59%	650%	-73%	-63%	-45%	707%	-42%

- The speed of change of cost is lower than the speed of change of revenues, but there is an increasing trend

- Lower activity does not lead to lower cost

Cost and profitability along the value chain

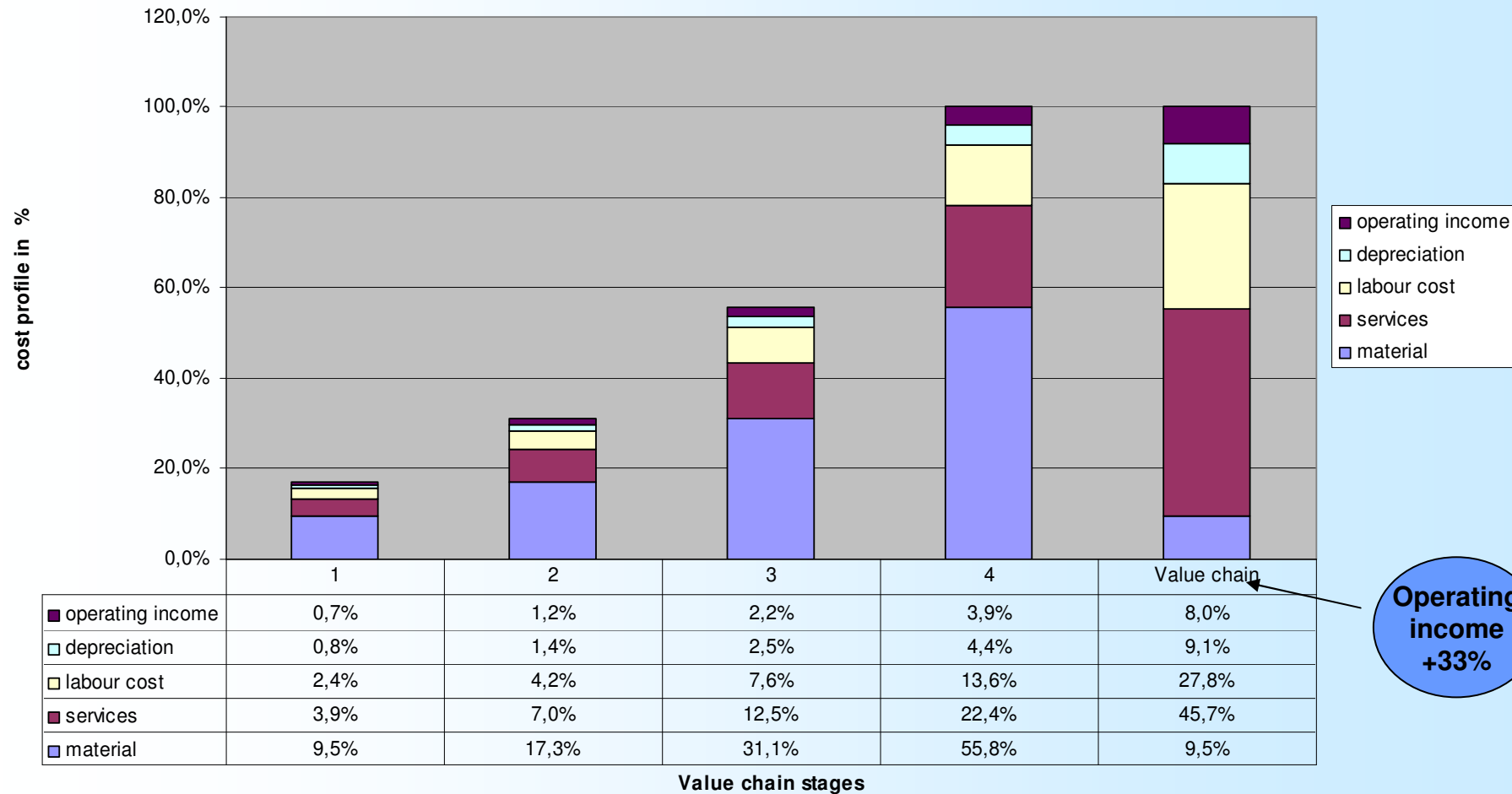**Cost and profit along the Italian manufacturing industry value chain**

	1	2	3	4	total value chain
■ operating income	0,5%	0,9%	1,6%	2,9%	6,0%
□ depreciation	0,8%	1,4%	2,5%	4,5%	9,2%
□ labour cost	2,4%	4,3%	7,7%	13,9%	28,3%
■ services	4,0%	7,1%	12,7%	22,8%	46,7%
□ materials	9,7%	17,4%	31,2%	55,9%	9,7%

value chain stage

Overall value chain activity cost ~85%

Specific studies:
-Agriculture machinery (~70%)
-- Woodworking machinery (~88%)
- Home appliances (~82%)

Cost management and profit potential along the value chain

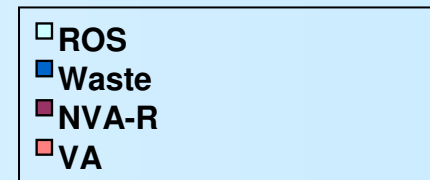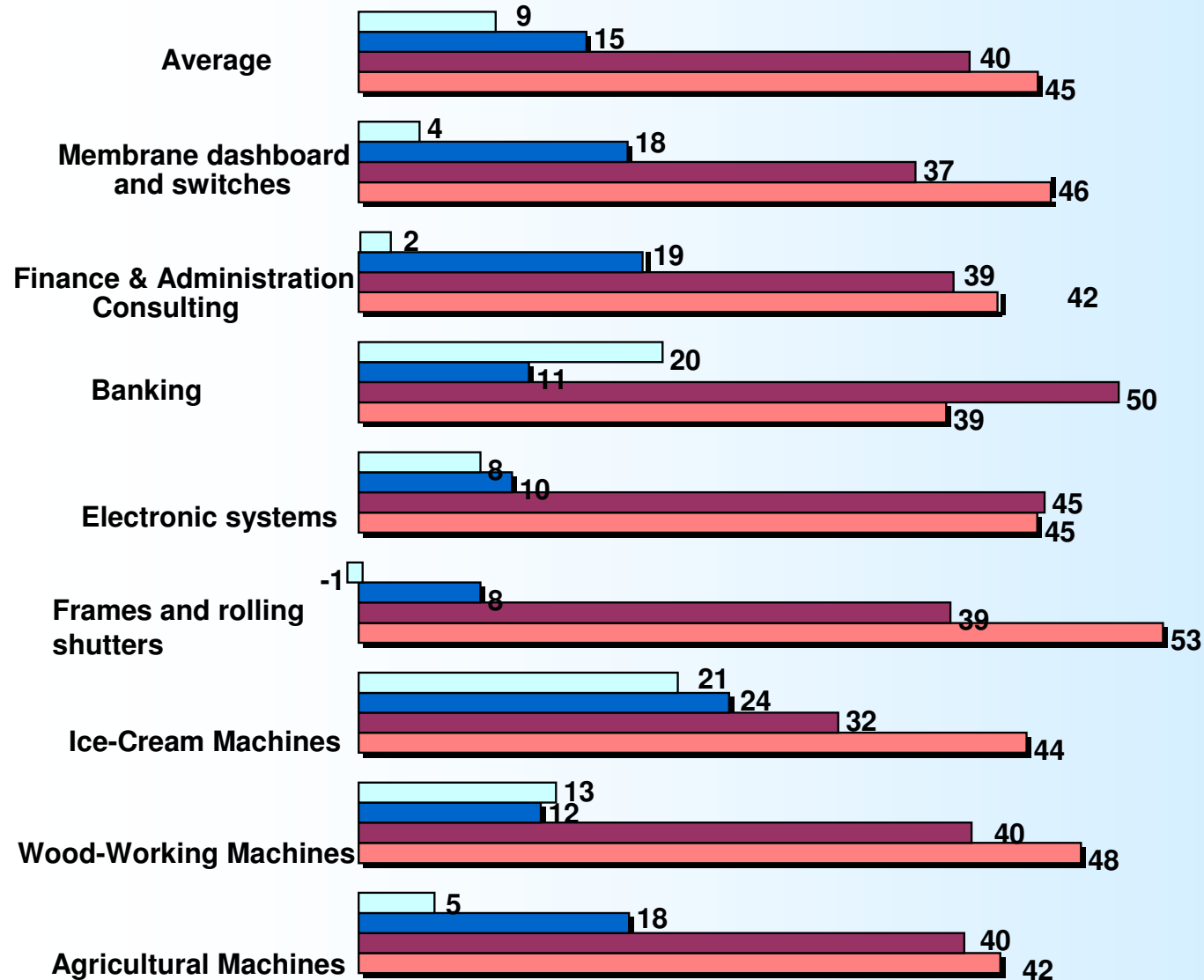**value chain performace with a cost efficiency of 2% shared at each stage**

	1	2	3	4	Value chain
■ operating income	0,7%	1,2%	2,2%	3,9%	8,0%
□ depreciation	0,8%	1,4%	2,5%	4,4%	9,1%
□ labour cost	2,4%	4,2%	7,6%	13,6%	27,8%
■ services	3,9%	7,0%	12,5%	22,4%	45,7%
■ material	9,5%	17,3%	31,1%	55,8%	9,5%

Value chain stages

Operating income +33%

Activities, cost and cost drivers

	Executional Cost drivers	Structural Cost drivers
Frangor Co	66%	34%
Icecream Co	57%	43%
Motorbike Co	85%	15%
Woodwork Co	57%	43%

	Work force involvement	Capacity utilization	Plant Lay out	Suppliers & Customers integration	Product configuration	Total Quality Management
Frangor Co	6%	0%	3%	19%	36%	36%
Icecream Co	1%	0%	21%	27%	5%	45%
Motorbike Co	9%	44%	0%	4%	3%	40%
Woodwork Co	3%	1%	12%	26%	16%	42%

The value of the cost

Average
- ROS: 9
- Waste: 15
- NVA-R: 40
- VA: 45

Membrane dashboard and switches
- ROS: 4
- Waste: 18
- NVA-R: 37
- VA: 46

Finance & Administration Consulting
- ROS: 2
- Waste: 19
- NVA-R: 39
- VA: 42

Banking
- ROS: 20
- Waste: 11
- NVA-R: 50
- VA: 39

Electronic systems
- ROS: 8
- Waste: 10
- NVA-R: 45
- VA: 45

Frames and rolling shutters
- ROS: -1
- Waste: 8
- NVA-R: 39
- VA: 53

Ice-Cream Machines
- ROS: 21
- Waste: 24
- NVA-R: 32
- VA: 44

Wood-Working Machines
- ROS: 13
- Waste: 12
- NVA-R: 40
- VA: 48

Agricultural Machines
- ROS: 5
- Waste: 18
- NVA-R: 40
- VA: 42

Legend:
- ROS
- Waste
- NVA-R
- VA

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The value of the cost: cost and value mismatches

What do we do today?

Activities	% resources
Produce manuals	**60%**
Answer hotline	**15%**
Respond to letters	5%
Help locate repair or support services	10%
Revise manuals and send updates	10%

What does the customer value?

Activities	% of total value created for the customers
Hotline support	**60%**
Help locate repair or support services	20%
Respond to inquiries	10%
Updates and other services	5%
Manual availability	**5%**

(McNair 1994)

Specific studies:
- Woodworking machinery, Agriculture machinery, rolling shutters, home appliances
-Consulting and Financial Services

cost analysis along the value chain

Cost, value and profit potential along the value chain

Value chain profit potential

Value chain profit potential ~52%

	1	2	3	4	Value chain
■ operating income	0,5%	0,9%	1,6%	2,9%	6,0%
□ Waste	1%	2%	3%	6%	13%
□ NVA-R cost	3%	5%	9%	16%	34%
■ VA cost	3%	6%	10%	19%	38%
■ material	9,7%	17,4%	31,2%	55,9%	9,7%

Value chain stage
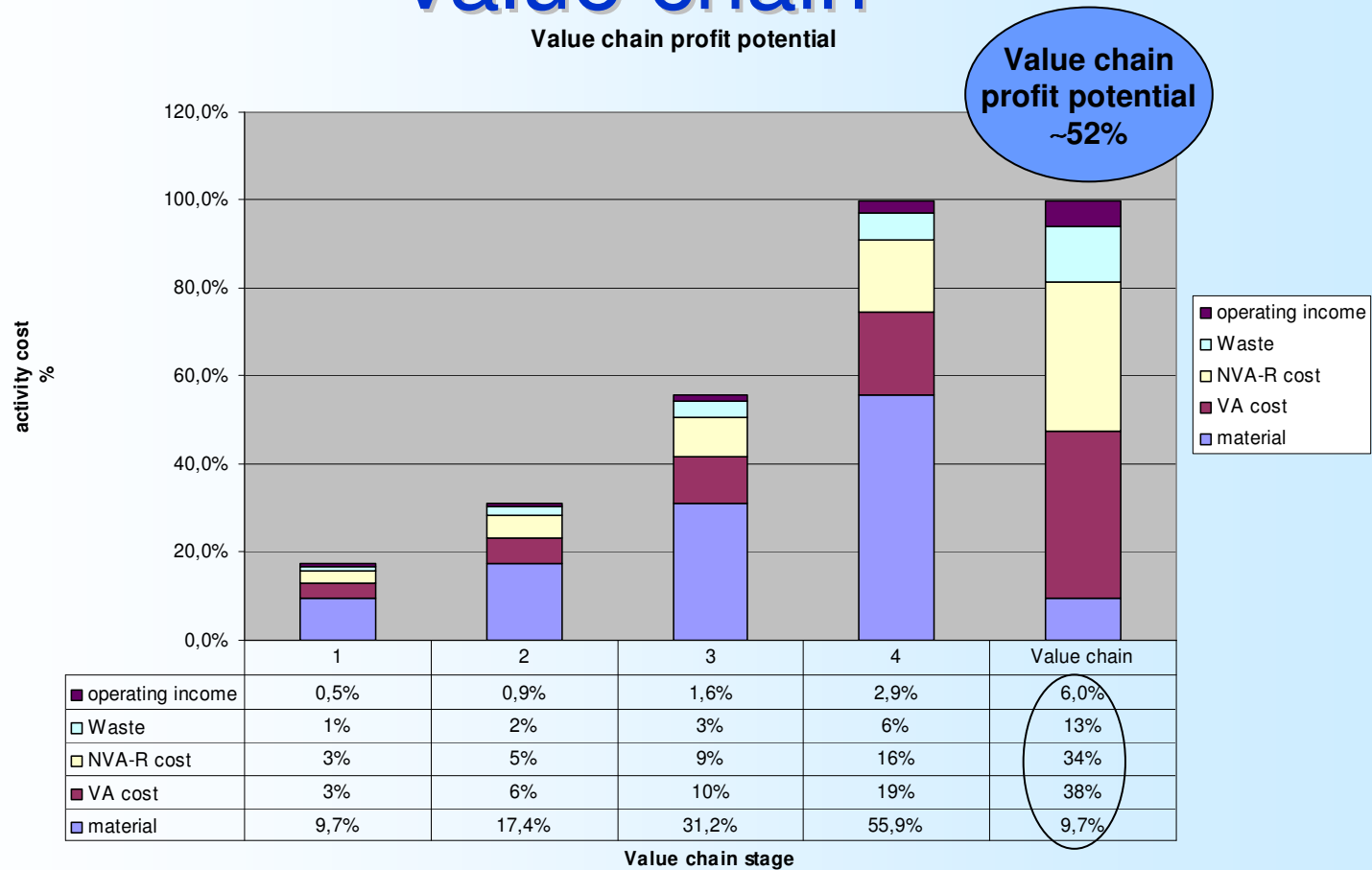
Specific case: home appliances 61%

Evidence of cost driver analysis along the value chain

- 17% supplier/customer level of integration (max 35%, min 3%)

- 20% product configuration (max 37%, min 2,3%)

- 9% executional complexity (max 26%, min 2,5%)

Network cost management
Co-makers vs. other customers profit potential

	customers		
	comaker	others	total
Revenues	57.654	41.362	99.016
Material	27.834	17.438	45.272
Value added activity cost	8.124	8.674	16.798
Profit potential	**21.696**	**15.250**	**36.946**
Non value added but required activities	8.110	8.925	17.035
Waste	1.542	2.285	3.827
Operating profit	**12.044**	**4.040**	**16.084**
	comaker	others	total
Revenues	100,0	100,0	100,0
Material	48,3	42,2	45,7
Value added activity cost	14,1	21,0	17,0
Profit potential	**37,6**	**36,9**	**37,3**
Non value added but required activities	14,1	21,6	17,2
Waste	2,7	5,5	3,9
Operating profit	**20,9**	**9,8**	**16,2**

Network Cost Management: KSF

Task Environment

Company Cost Structure

Transaction Management

Technological Interfaces

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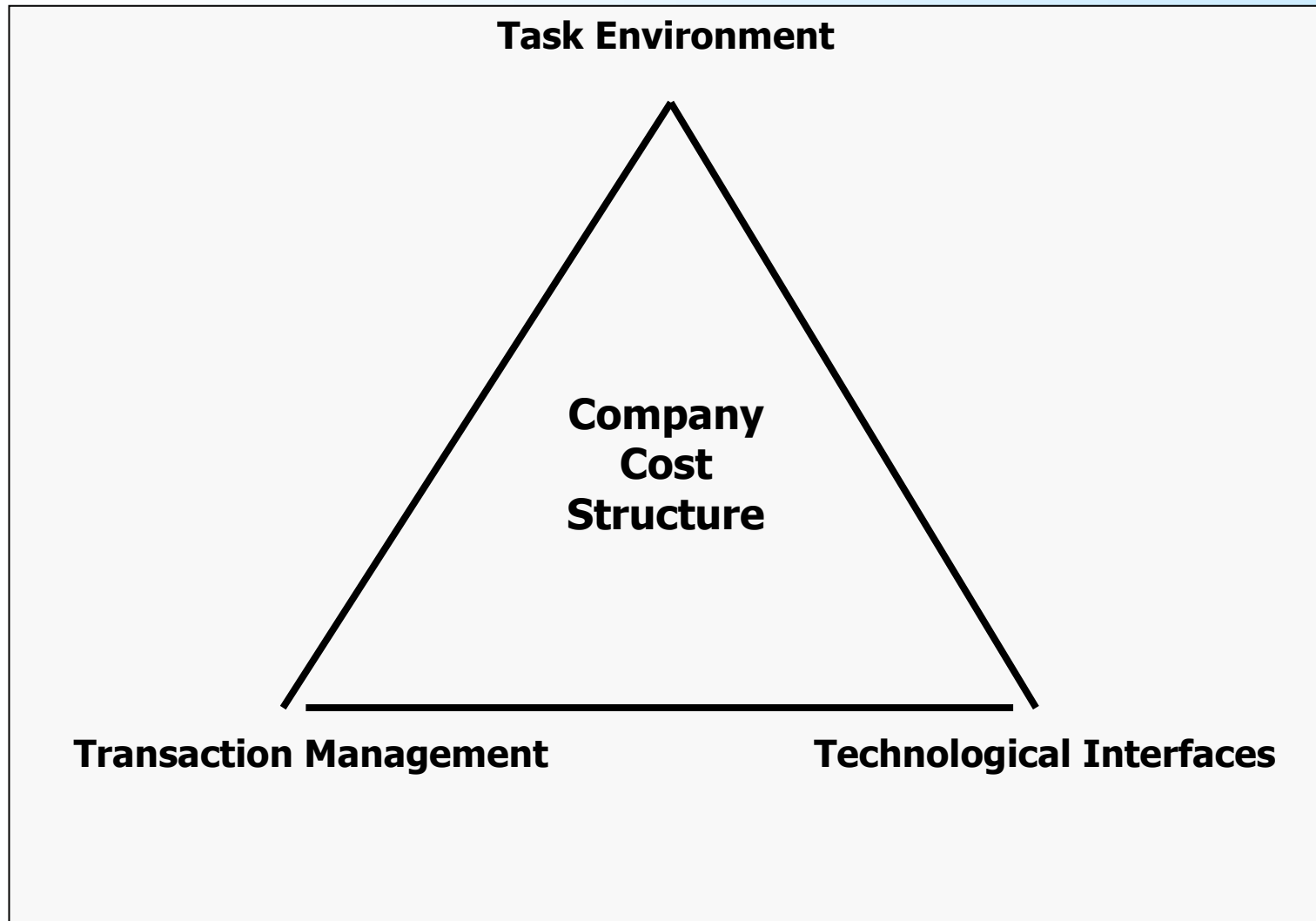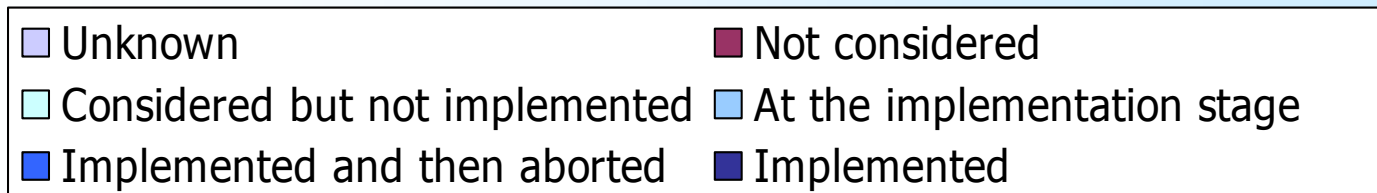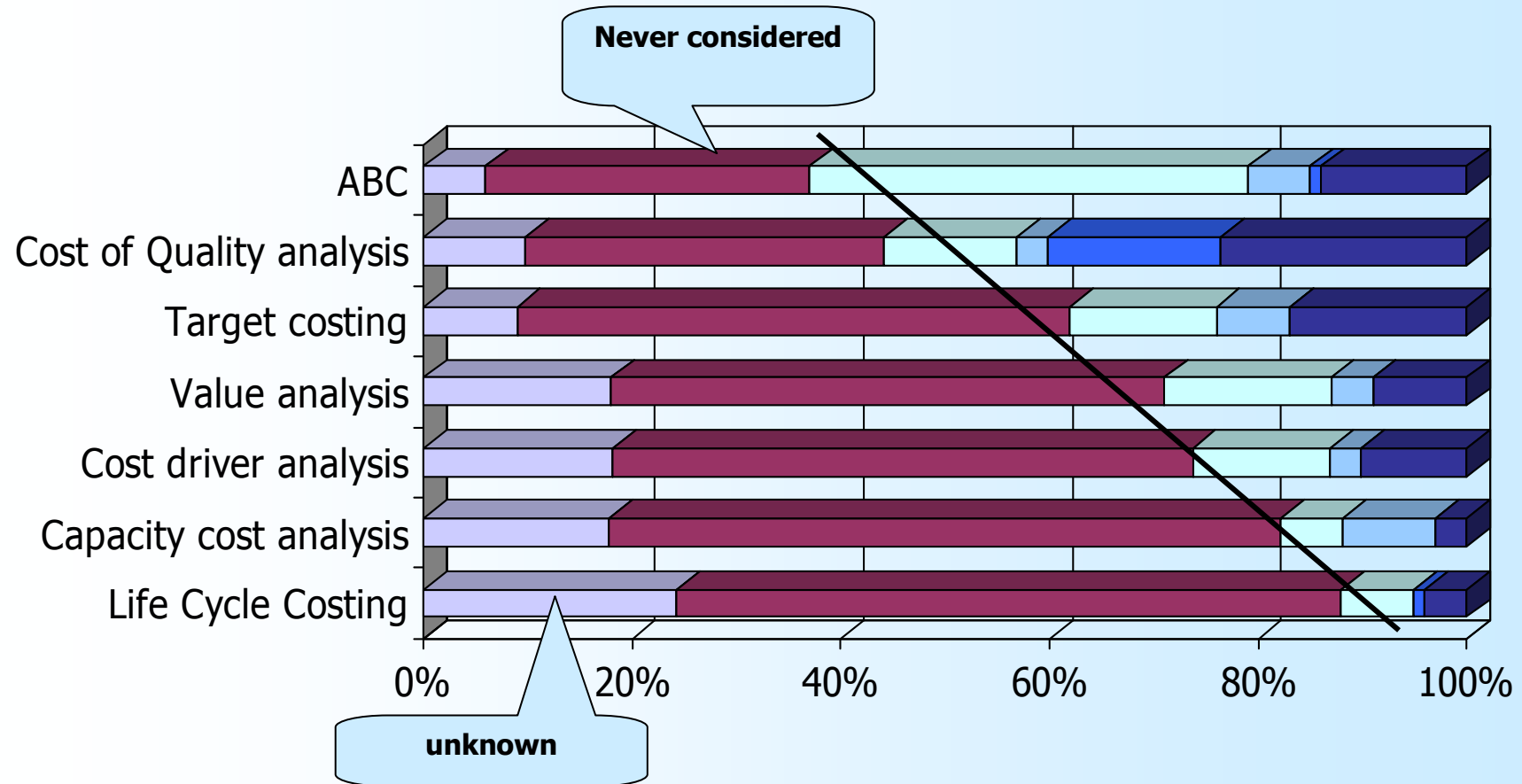
The practice of cost accounting

Advanced Cost Accounting Systems Implementation

(implemented or at the implementation stage)
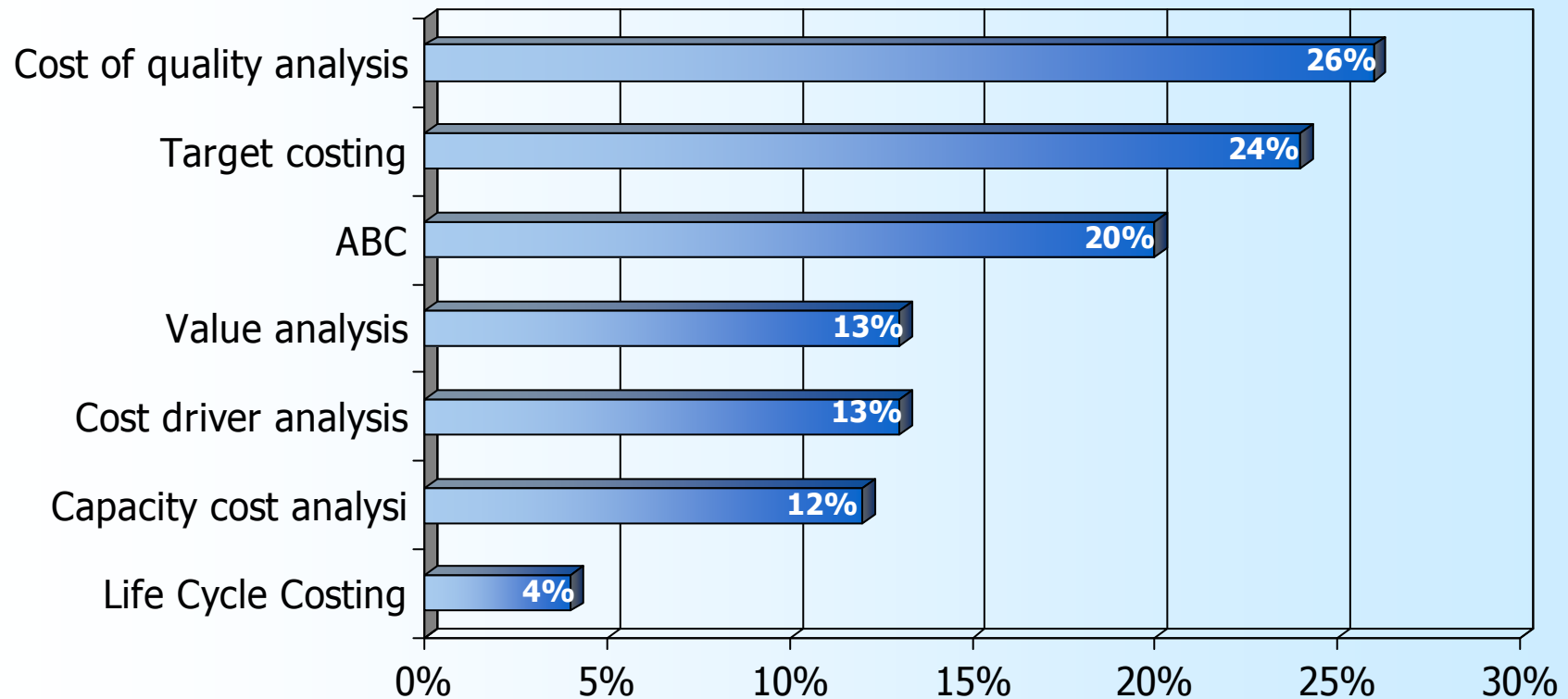
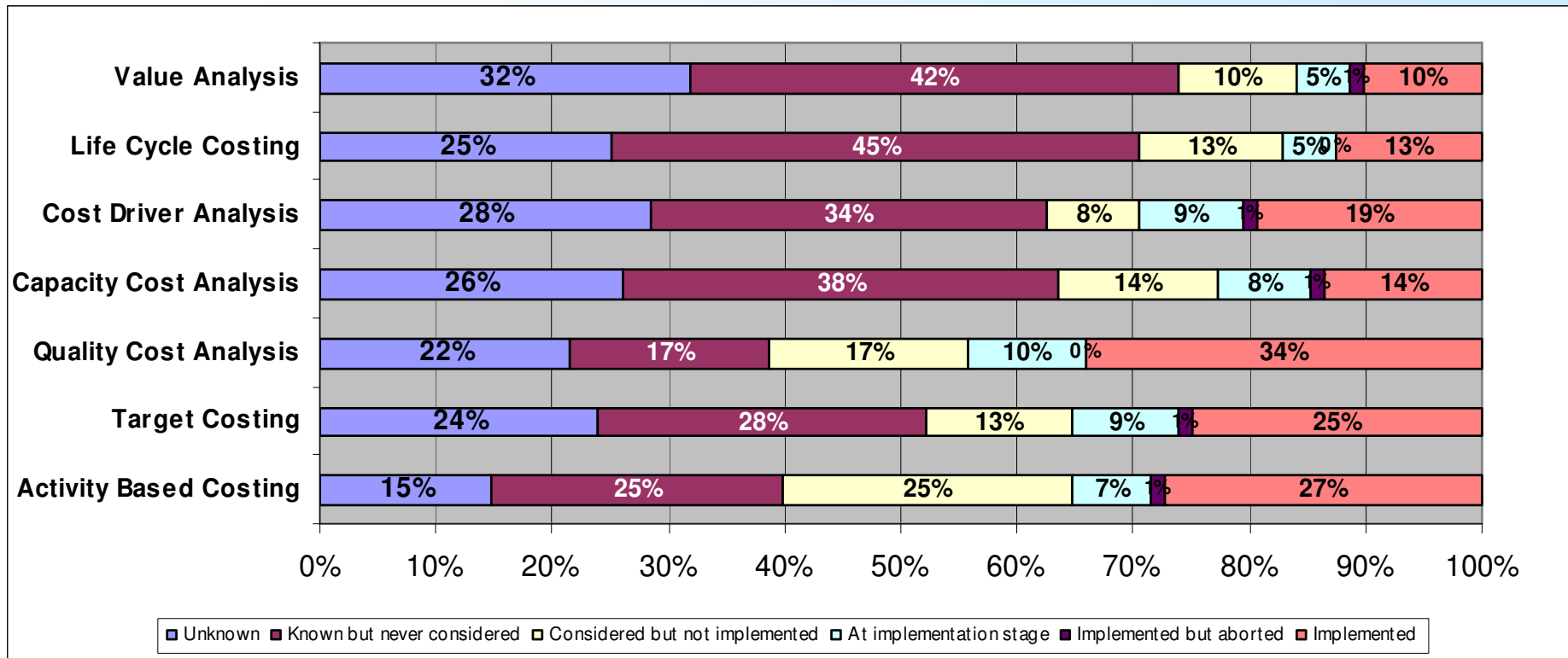# Causes of not implementation

| Cause	Percentage
Other priorities	83%
Lack of technical support	71%
Unknown	60%
Cost and benifit trade-off	59%
Not aligned with managers information needs	46%
Lack of committent by employees	34%
Lack of committment by top managers	27%
Unsatisfactory previous experience	7%

The practice of cost management

The practice of cost management

	Unknown	Known but never considered	Considered but not implemented	At implementation stage	Implemented but aborted	Implemented
Value Analysis	32%	42%	10%	5%	1%	10%
Life Cycle Costing	25%	45%	13%	5%	0%	13%
Cost Driver Analysis	28%	34%	8%	9%	1%	19%
Capacity Cost Analysis	26%	38%	14%	8%	1%	14%
Quality Cost Analysis	22%	17%	17%	10%	0%	34%
Target Costing	24%	28%	13%	9%	1%	25%
Activity Based Costing	15%	25%	25%	7%	1%	27%

- **There is still a gap between theory and practice**
- **Focus is on ABC , TC, COQ**
- **Specific and more innovative techniques are not known or taken into consideration**

The practice of cost management
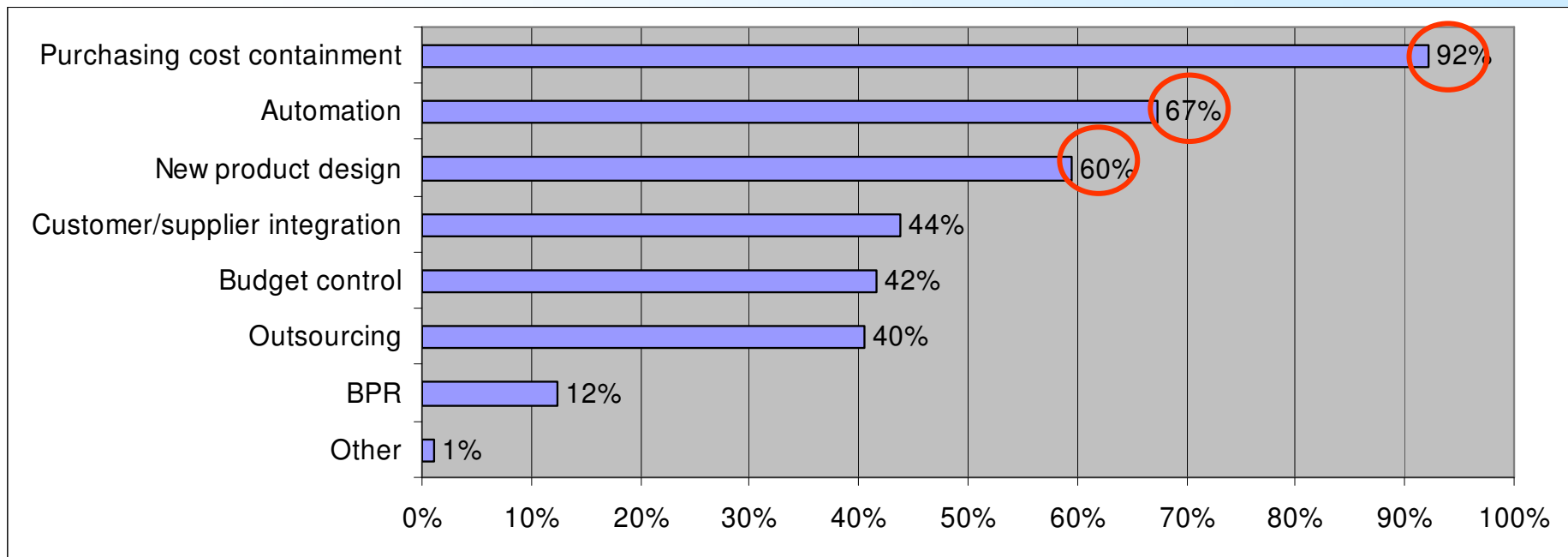
The practice of cost management: the lean management view

- Cost reduction not always works well for companies focus on LM goals

- In lean organizations "design new products and BPR" are more effective than traditional cost management approaches (budget restriction, outsourcing, purchasing cost reduction)

- "innovative" cost management techniques seem to be more appreciated by lean organizations

Application of SCA

- **SCA and competitive strategy**

- **SCA and the customer focused organization**

- **SCA and the business process reengineering**

- **SCA and Lean Management**

- **SCA and the networked organization**

- **SCA and the Knowledge-based strategy**

Strategic Cost Analysis Research "tools"

- **ABC/ABB/ABM**

- **Cost driver Analysis**

- **Process Value Analysis**

- **Profit Potential and Value Multiplier Analysis**

- **LCC/TCO/EVC**

- **Value chain analysis and Network cost management**

- **Benchmarking and competitive cost analysis**

- **Target Cost Management and Value analysis**

- **KPI/PMS/BSC**

- **…**

Is the relevance lost? The importance of Cost Analysis Research

- **Cost information can be a powerful source of competitive advantage as it can improve the effectiveness of (strategic) management decision making process**

- Leveraging cost along the value chain significantly increases profit gains

- The more competitive the marketplace the less well traditional (SCA) companies perform

- Modern Cost management techniques are a potential value driver for traditional companies

- Consequences of using CM techniques need to be further investigated

- Gap continues to persist beetween emerging CM theory and practice

Strategic Cost Analysis: research trends

- Cost management practices

- Cost management practices/initiatives effectiveness

- Post implementation cost management initiatives

- Cost management along the value chain, value system and industrial districts

- ...

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