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CAMBODIA

Measuring Competitiveness & Labor Productivity in Cambodia's Garment Industry

Implemented with support from
USAID/Cambodia & USAID's Trade
Capacity Building project by



Competitiveness & Labor Productivity

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Why This Work?

- Outgrowth of survey of activities underway in the garment sector undertaken June 2004
 - World Bank: Investment climate
 - Asian Development Bank: Sector strategy
 - ILO: Labor standards compliance
 - FIAS: Buyer attitudes
- Where can USAID make a meaningful contribution?

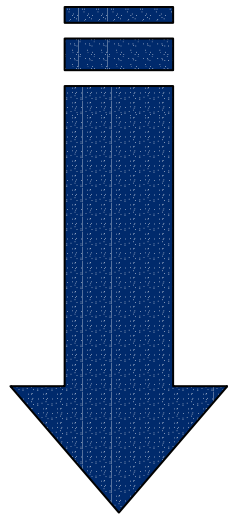
Questions Facing Garment Industry

- How to survive in the post-quota era?
- In addition to compliance with international labor standards, how else to improve competitiveness?
- Is there scope to improve factory performance?
- What tools are available and how to facilitate their adoption?

Changes Underway in Int'l Trade

- January 2005 elimination of global textile & clothing quotas
- Duty reduction or elimination via multiplying free trade agreements & preferential trade arrangements
 - Israel, Canada, Mexico, Jordan, Chile, Singapore, Australia, Morocco,... CAFTA-DR?
 - Caribbean, Andean, African regional trade preferences
 - ...*Trade Act of 2005?*

Results of Post-Quota Pressures



\$\$ Global Prices \$\$



Buyer Uncertainties

- Imposition by U.S. & EU of safeguards on Chinese imports
- China's possible exchange rate revaluation
- Rising costs & mounting infrastructure pressures in China

Cambodia's Garment Industry,

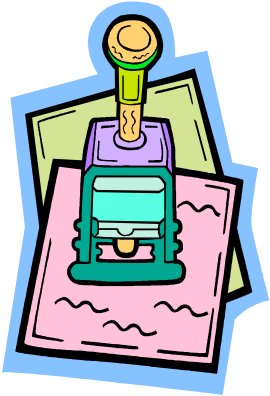
June 2005

- Global market pressures exacerbated by high costs of doing business in Cambodia
- Due in part to factors *outside of the* production plant, e.g. complex procedures, adverse investment climate
 - Costs of corruption & administrative regulations amount to as much as 7% of total sales value

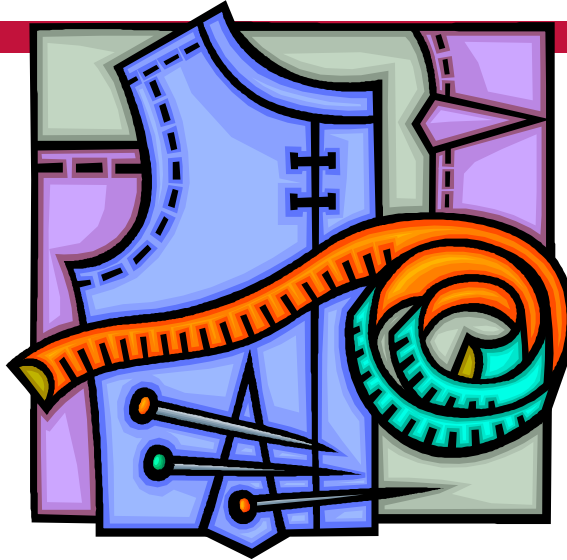
Why Worry About Competitiveness?

- As the “sourcing wars” intensify, companies need to be competitive
 - Cost, quality, social responsibility, value-chain integration
- What is “competitiveness”?
 - At the company level: profitability
 - At the national or sectoral level: the ability to create new jobs & raise the standard of living for your people

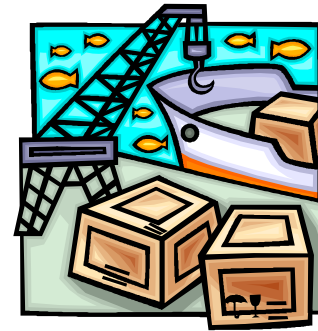
Factors Affecting Competitiveness



Paperwork



Labor Productivity



Shipping



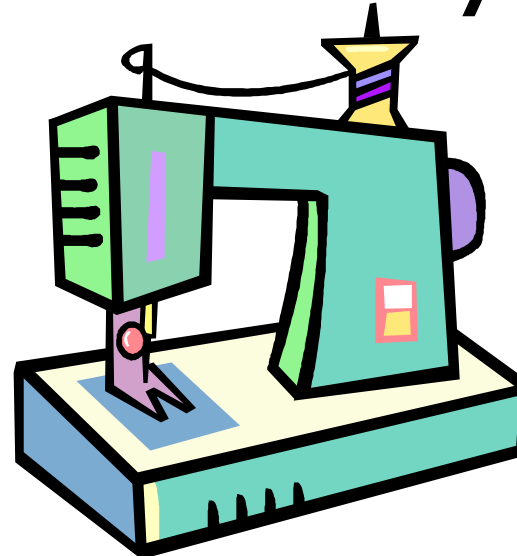
Trade Agreements



Inspections



Labor Relations



Buyers

Why Focus on Labor Productivity?

Vicious spiral

- Squeezing wages
- Restricting benefits
- Skimping on working environment
- Concessions from labor
- Strikes, instability, deterrence of foreign investors



versus

Virtuous cycle

- Increasing labor productivity $\Rightarrow$
- Increasing skills & wages $\Rightarrow$
- Increasing demand for labor in other sectors $\Rightarrow$
- Labor & management as partners
- Increasing living standards



Survey Overview

Mr. Chea Samnang

Researcher

Economic Institute of Cambodia



Sample Selection

- Survey population
 - GMAC membership (238 factories)
 - All factories invited to participate in survey
 - Participants receive tailored benchmarking analyses for their factories
- Survey sample
 - 82 factories visited (over one-third of industry)
 - 70 questionnaires returned
 - 66 received from visited factories
 - 4 received from non-visited factories

Data Collection

- Collected qualitative and quantitative data
 - Survey questionnaire
 - Interviews
 - On-site visits
- Teams included technical expert + economist
 - Explained questionnaire
 - Visited entire factory during work hours

Survey/Industry Comparisons: Size

Number of Workers	General Factory Population		Survey Respondents	
	Number	Percent	Number	Percent
<500	62	29%	12	17%
500–1,000	82	38%	29	41%
1,000–2,000	43	20%	22	31%
2,000–5,000	22	10%	6	9%
> 5,000	6	3%	1	1%
Total	215	100%	70	100%

Survey/Industry Comparisons: Nationality

Nationality	General Factory Population		Survey Respondents	
	Number	Percent	Number	Percent
Cambodia	13	5%	10	14%
China and Hong Kong	66	28%	21	30%
Taiwan	41	17%	23	33%
Korea	12	5%	6	9%
Other	59	25%	9	13%
Joint Venture	47	20%	1	1%
Total	238	100%	70	100%

Survey/Industry Comparisons: Products

Product Category (Quota Code)	General Factory Population		Survey Respondents	
	Number	Percent	Number	Percent
U.S Quota Categories				
Cotton knit shirts (338/9)	43	18%	14	16%
Cotton nightwear (351)	35	15%	16	19%
MMF knit shirts (638/9)	78	33%	31	36%
Cotton trousers (347/8)	81	34%	31	36%
EU Quota Categories				
Knit T-shirts (4)	43	18%	12	14%
Woven trousers and shorts (6)	52	22%	16	19%
Jerseys, jumpers, pullovers, sweaters (5)	82	34%	27	32%

Sample Characteristics: Personnel

	Gender		Nationality	
	Female	Male	Khmer	Foreigner
Management	61%	39%	80%	20%
Worker	91%	9%	99%	1%
Total Staff	90%	10%	98%	2%

Sample Characteristics: Indirect Personnel

Categories	% Total	% Foreigner
Designers	1%	98%
Product developers	<1%	98%
Director	1%	97%
Planning	1%	84%
GM, Prod managers	1%	81%
Work-study engineers	<1%	56%
Supervisors	10%	54%
IT	1%	47%
Sample makers, QC	10%	40%
Other	74%	
<i>Total Indirect</i>	100%	40%

Sample Characteristics: Factory Investment Plans

Factory Intentions to Invest

Plan to Invest?	Number	Percent
Yes	37	54%
No	28	41%
Not clear	3	4%
Total	68	100%

Factory Investment Objectives

Objective	Number	Percent
Equipment	33	89%
New space	25	68%
Recruitment	30	81%
IT system	27	73%

Productivity Benchmarking

Mr. Jan Urlings
Executive Vice President
Werner International



Presentation Overview

- **Benchmarking Analysis**
 - Symptoms & possible causes of low productivity
 - Benchmark parameters
 - Benchmark ratings
 - Characteristics & Distribution of Quartiles
 - Typical company in Cambodia
 - Factor benchmarking within Cambodia
- **International Benchmarking Comparisons**
 - Labor costs in the garment industry
 - Overall benchmarking scores
 - Factor-specific benchmarking
- **Approach to Productivity Improvement**
 - Supplier requirements
 - Improvement potential
 - Company-level priorities & action program
 - Sector-level strategy
 - Benefits of improved productivity

Benchmarking Analysis

- What ?
 - Identify outstanding practices from around the world
 - Measure Cambodian performance against these
- Why ?
 - Assist Cambodian companies in measuring potential for improvement in their factories
 - Define ‘best practice’ targets in specific companies
 - **Company specific** implementation
 - Taking account of **actual situation** (products, workers, ...)
 - **Without major investments**

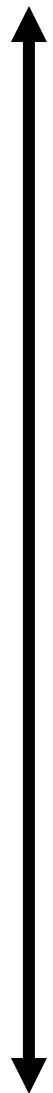
Symptoms & Possible Causes of Low Productivity

- **Materials:** Large amounts of waste, excessive usage
 - Insufficient utilization, low quality workmanship, materials not in most convenient form
- **Labor:** Low performance, excessive lost time, setting up time, poor work methods
 - Lack of incentives, weak skills, poor organization, poor line balancing
- **Machine capacity:** Breakdowns, low output, high costs
 - Poor or lacking maintenance, long set up times, low running speeds
- **Logistics:** Excessive handling
 - Poor layout, poor location of departments, handling of small units, poor handling equipment

Benchmarking Parameters

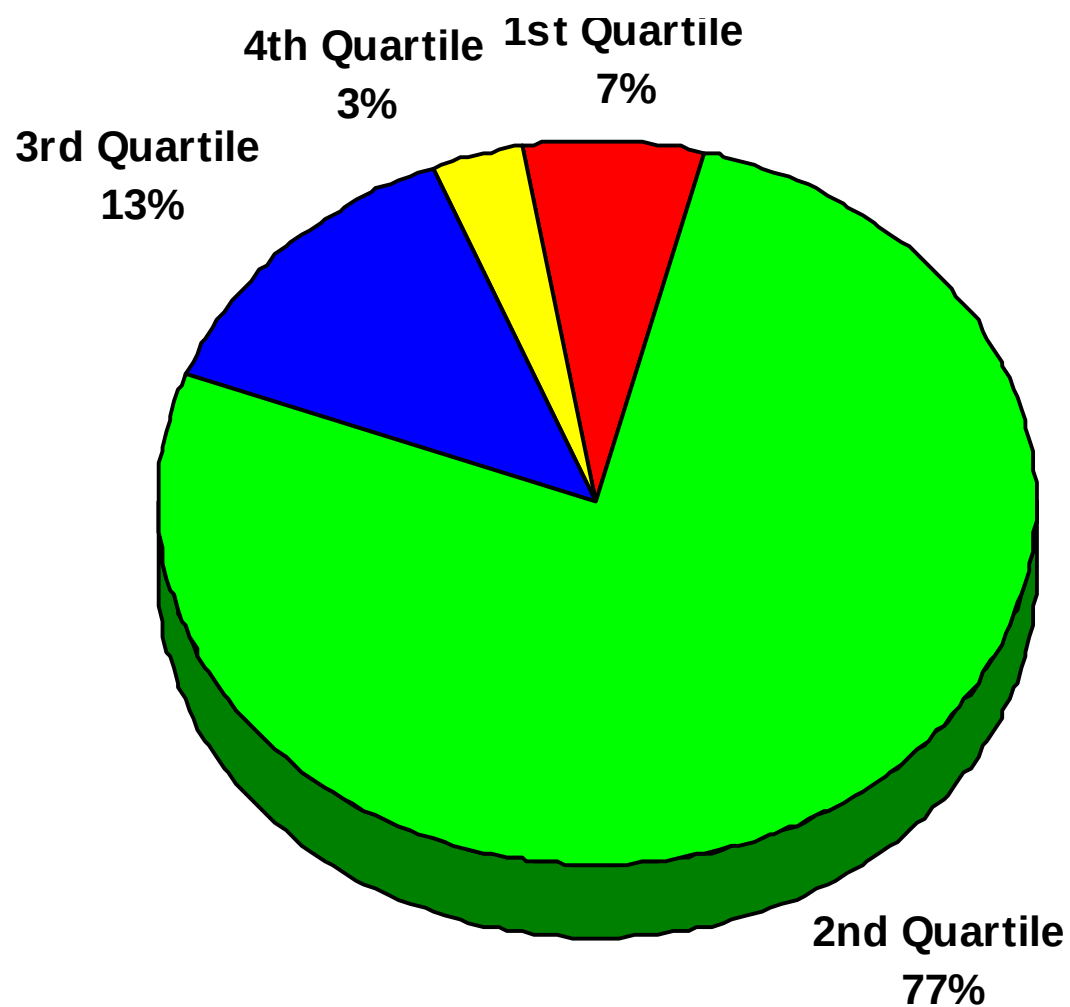
- Diversity of clients
- Organization chart
- Indirect-to-direct personnel
- Training
- Production planning
- Use of standards
- Plant layout
- Line balancing
- Product specifications
- Fabric consumption & waste control
- Quality
- Maintenance & investments
- Electronic data processing equipment

Benchmarking Ratings

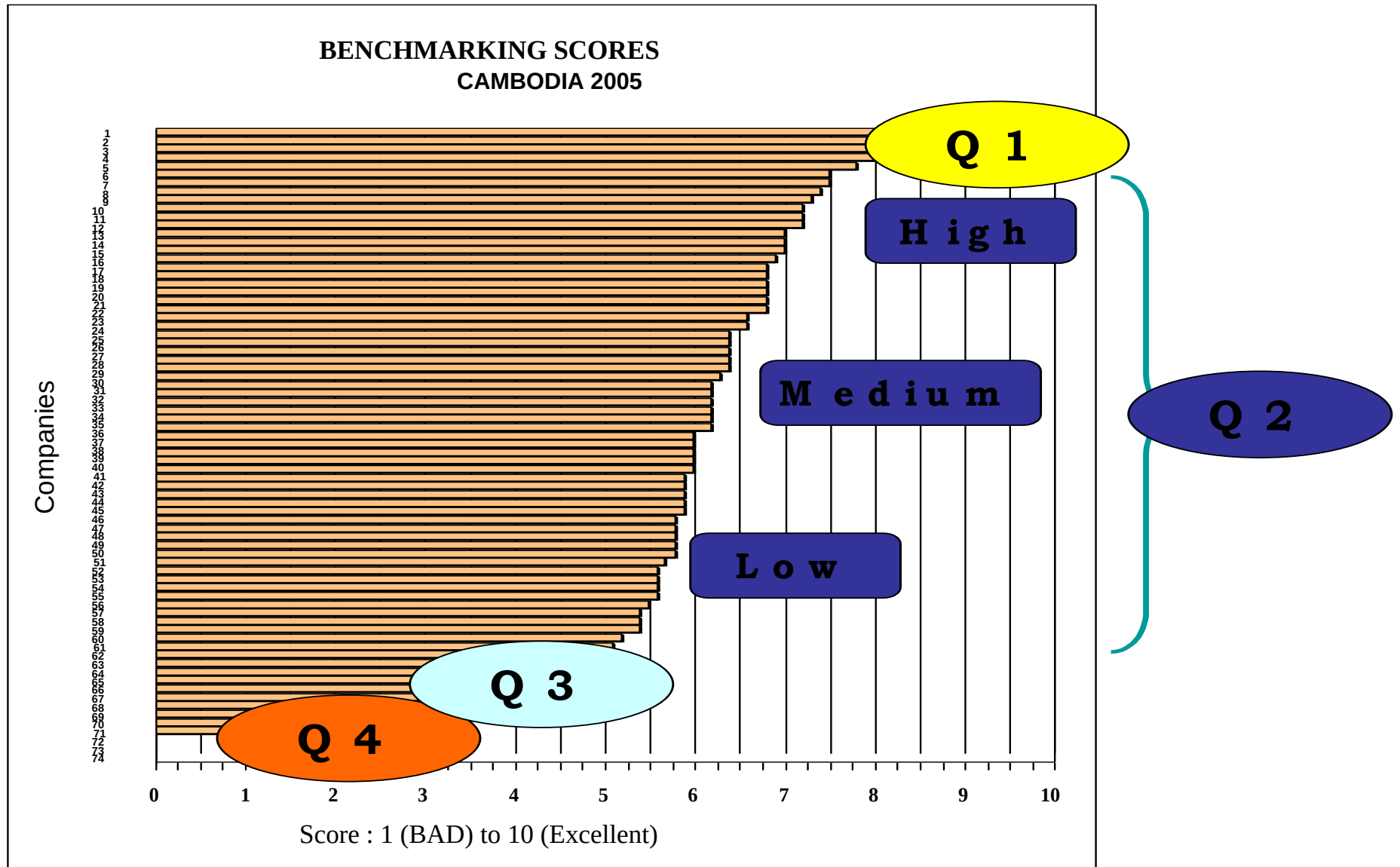


Benchmark Value	Quartile		Description
5	I st Quartile (superior)		World Class Manufacturer
4.5			
4	2 nd Quartile		Medium Performance
3.5			
3			
2.5	3 rd Quartile		
2			
1.5			
1	4 th Quartile (inferior)		Weak Performance
0.5			

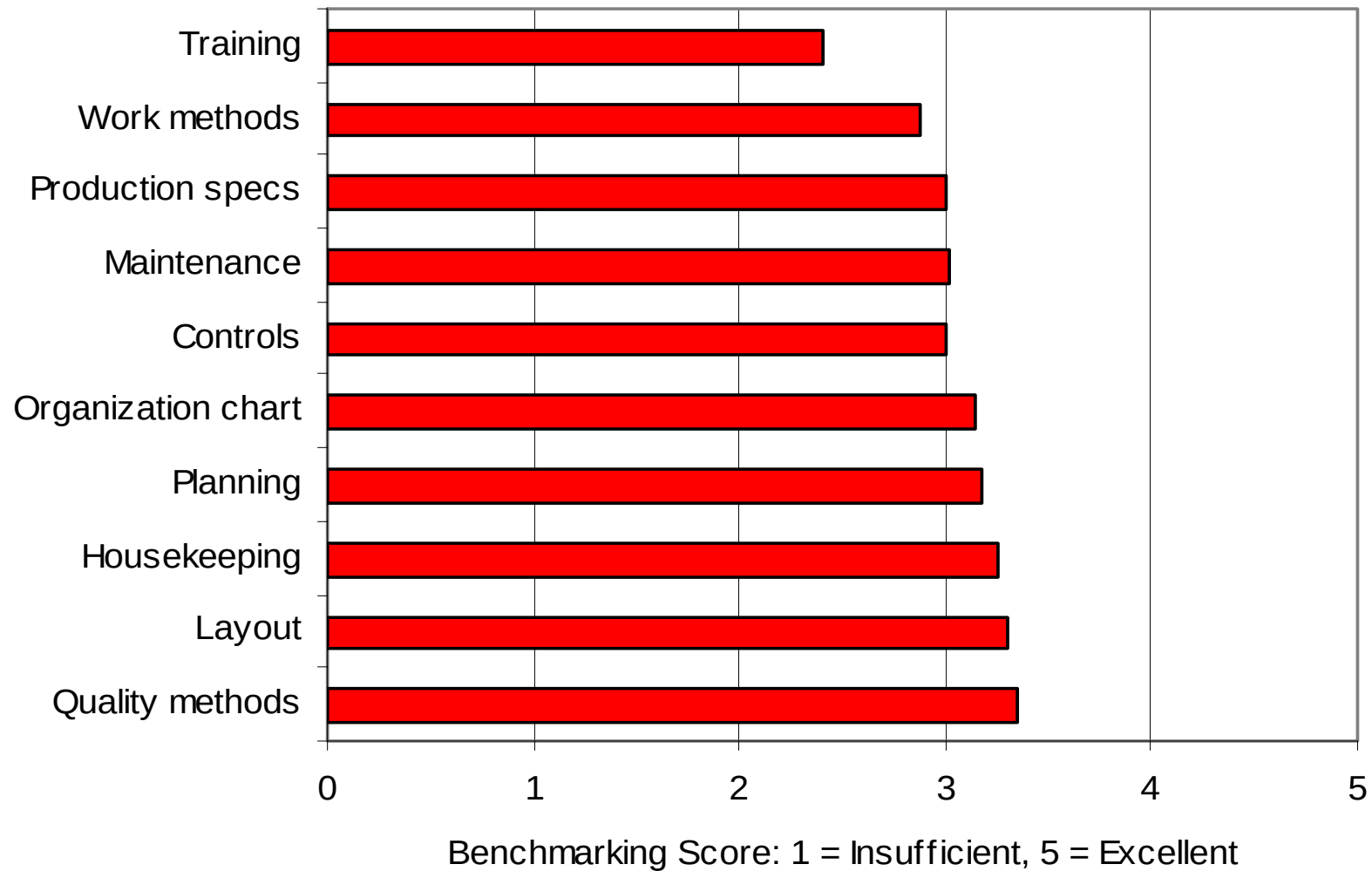
Quartile Benchmarking for Cambodia



Distribution of Benchmarking Scores



Factor Benchmarking in Cambodia



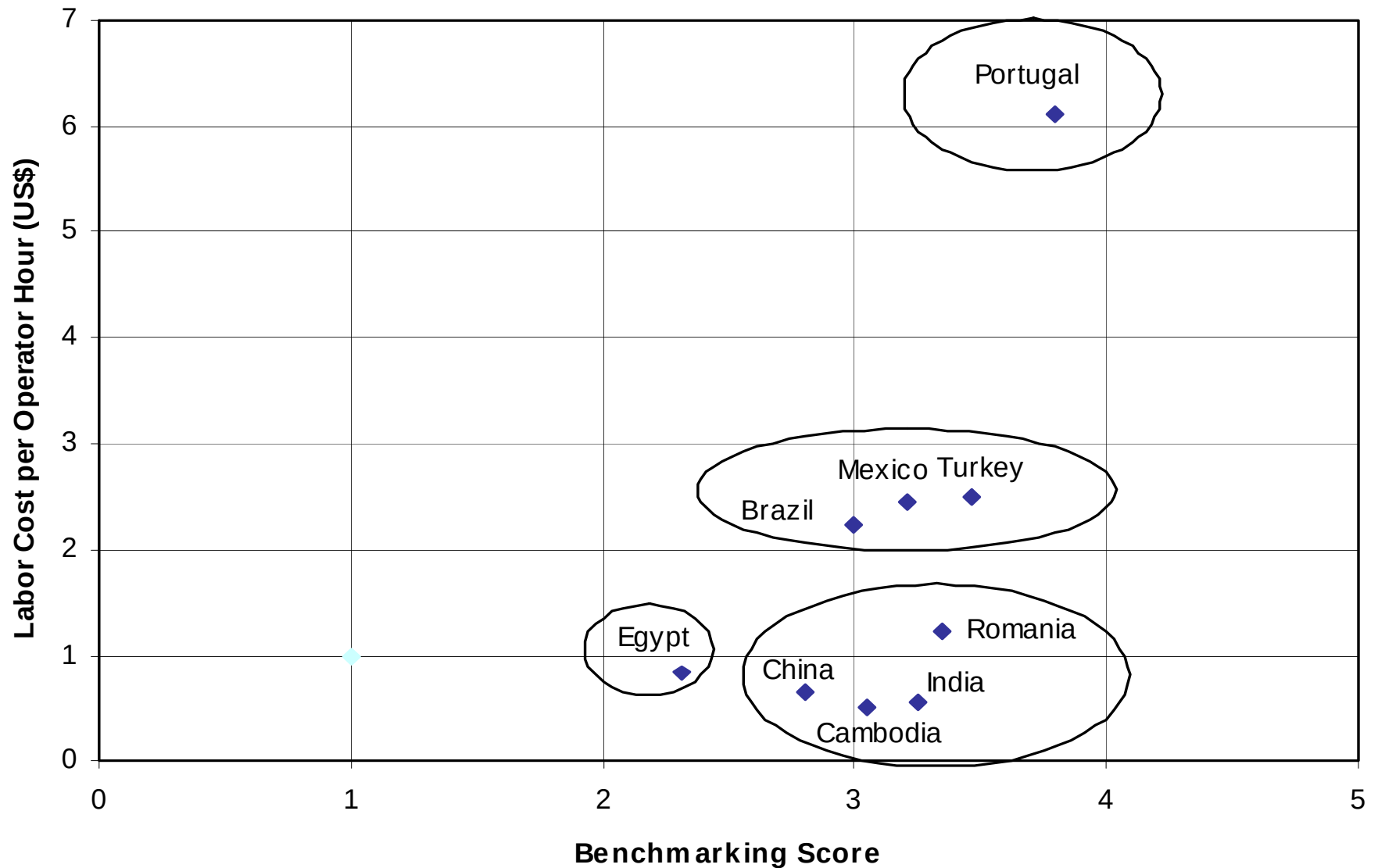
Characteristics of Quartiles in Cambodia

Characteristic	1st	2nd	3rd	4th
Clients	Single	Multi	Agents	Subcontract
Organization chart	Complete	Simple	Simple	Unclear
Training program	Buyer's policy	No	No	No
Planning	Complete	From head office	From agent	No
Work methods	Effective	Not systematic	Not systematic	No
Quality method	Very high	End of line	End of line	Very basic
Time study	Rarely applied	Not applied	Not applied	Not applied
Plant efficiency	80% and +	70-80%	50-70%	< 50%

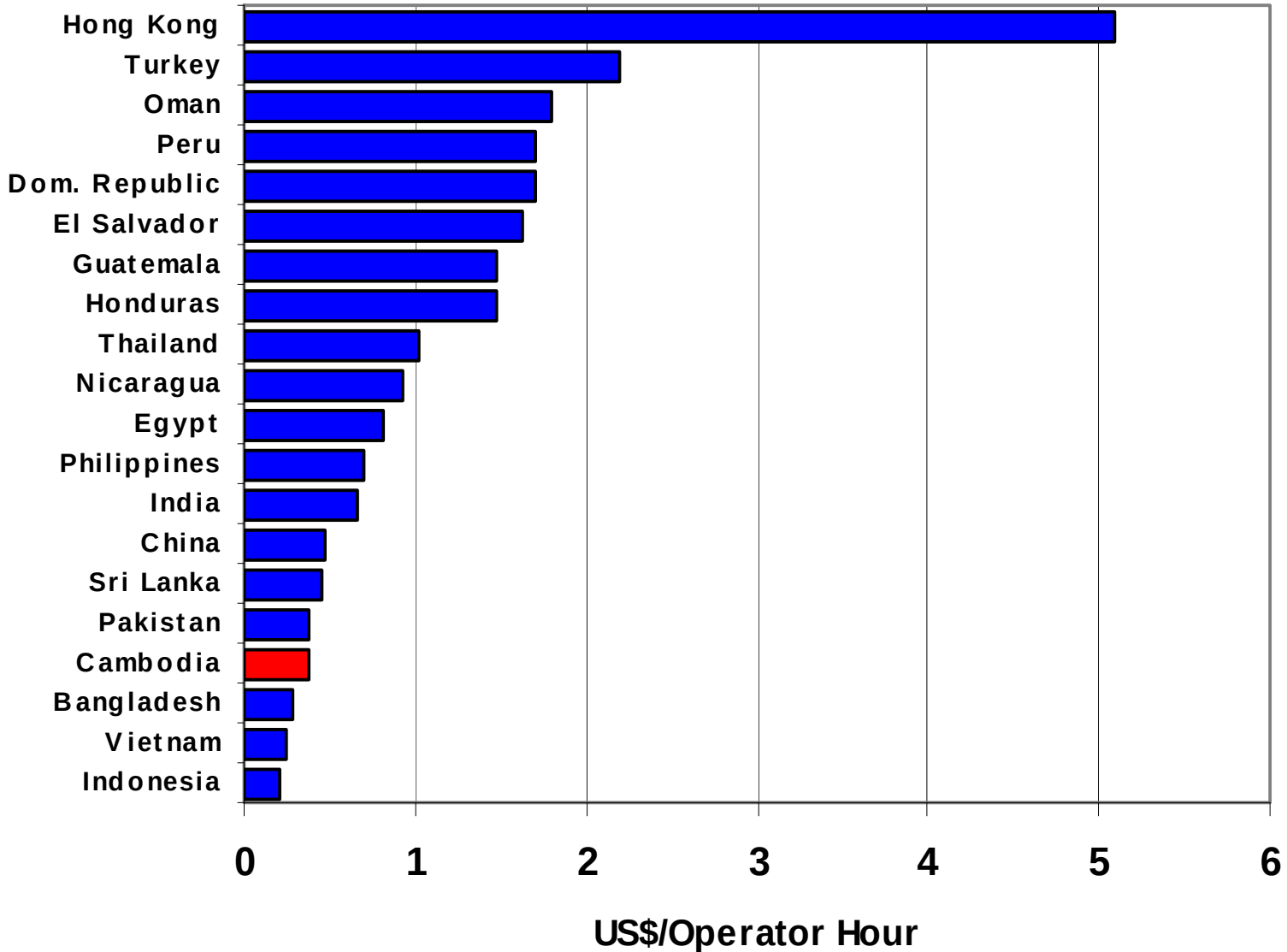
Typical Company in Cambodia

- Good workforce, low labor cost
- Good safety, work environment and housekeeping
- Layout is reasonably good
- Reasonable quality management
- Machines at low levels of efficiency
- Ratio of indirect-to-direct labor is too high
- Range of products is very basic, with little added value
- Machine maintenance is low
- Poor line balancing
- Weak work methods & process controls
- Training is extremely weak, especially at mid-management

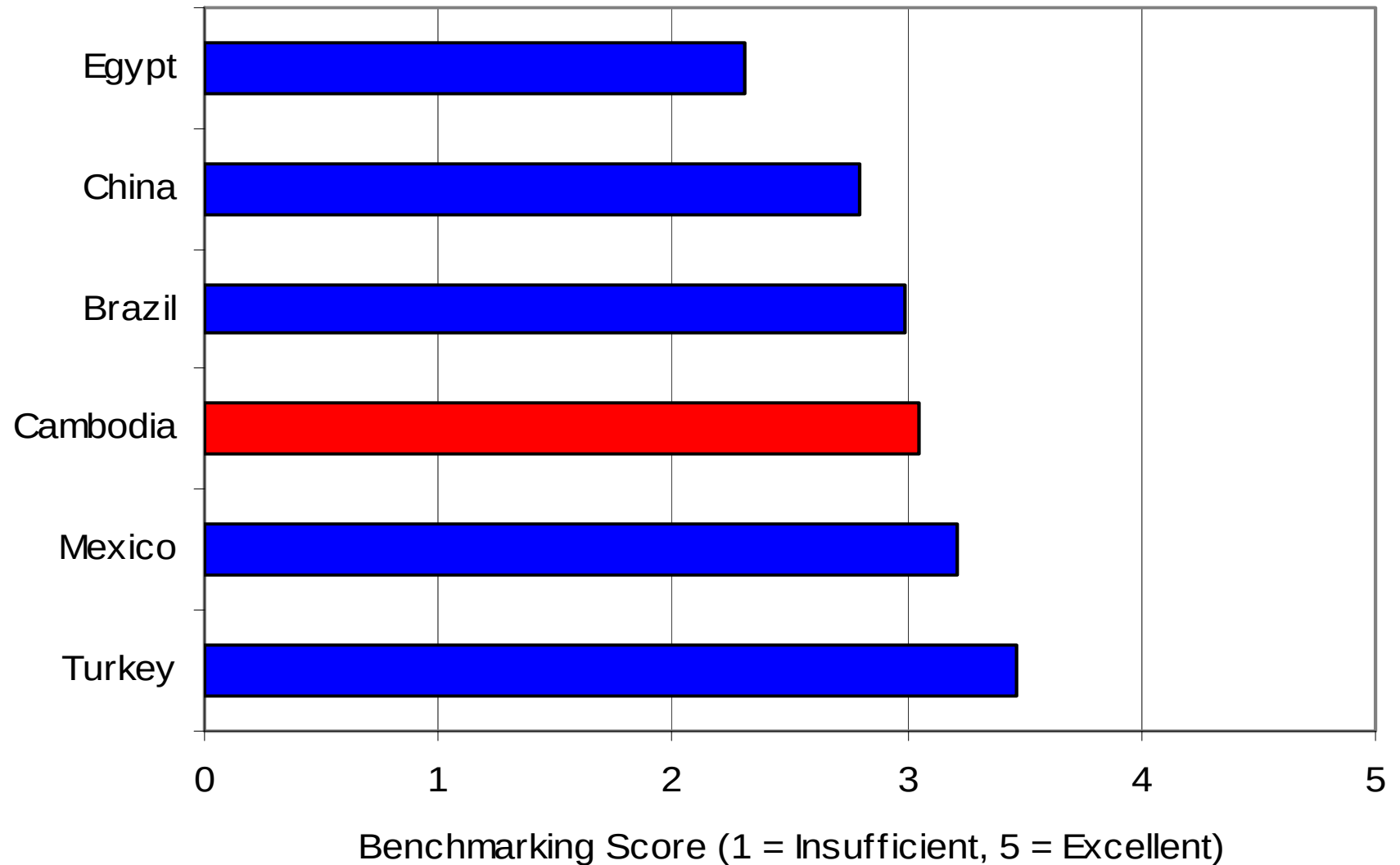
International Benchmarking Comparisons



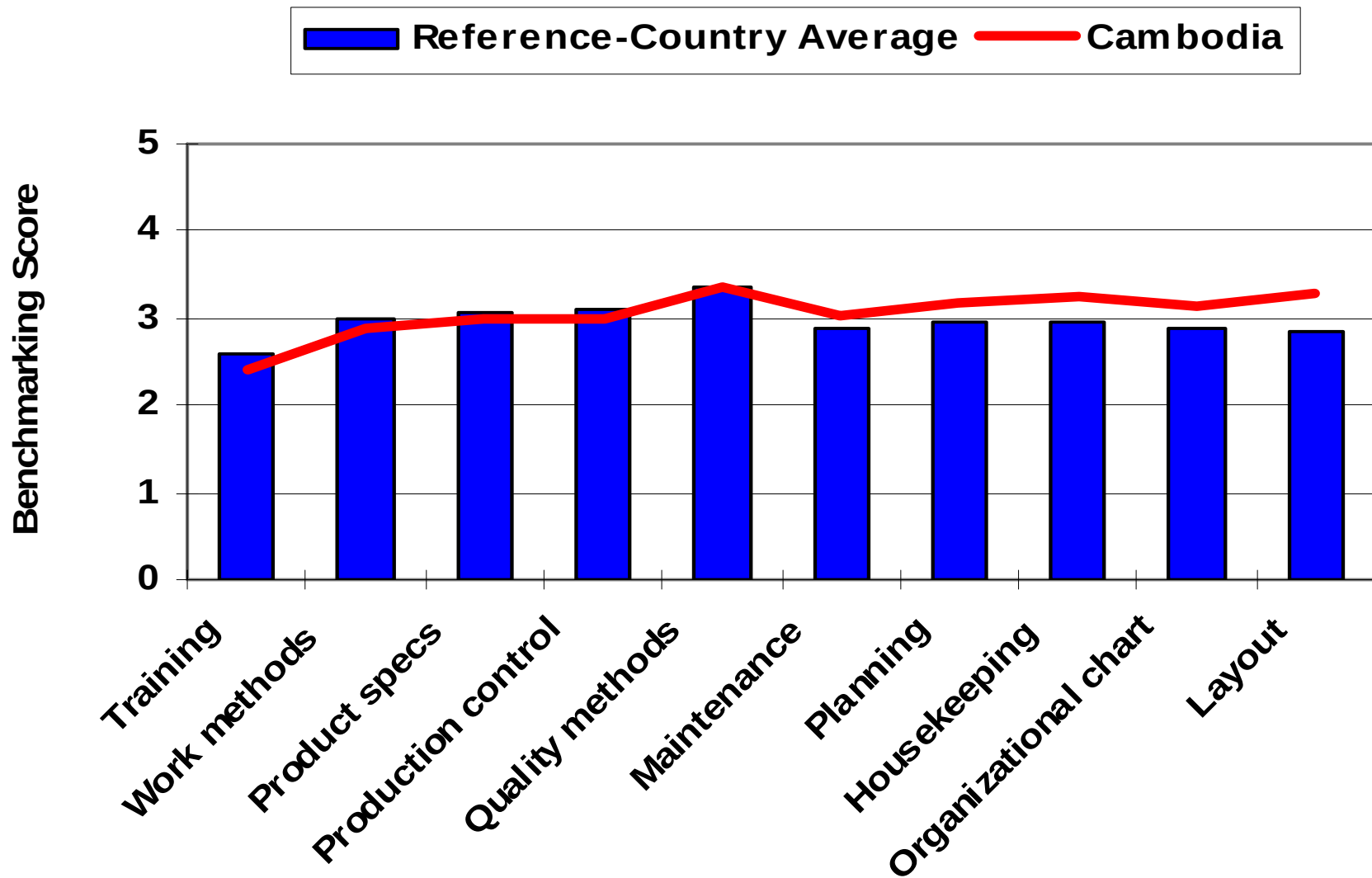
Labor Costs in the Garment Industry



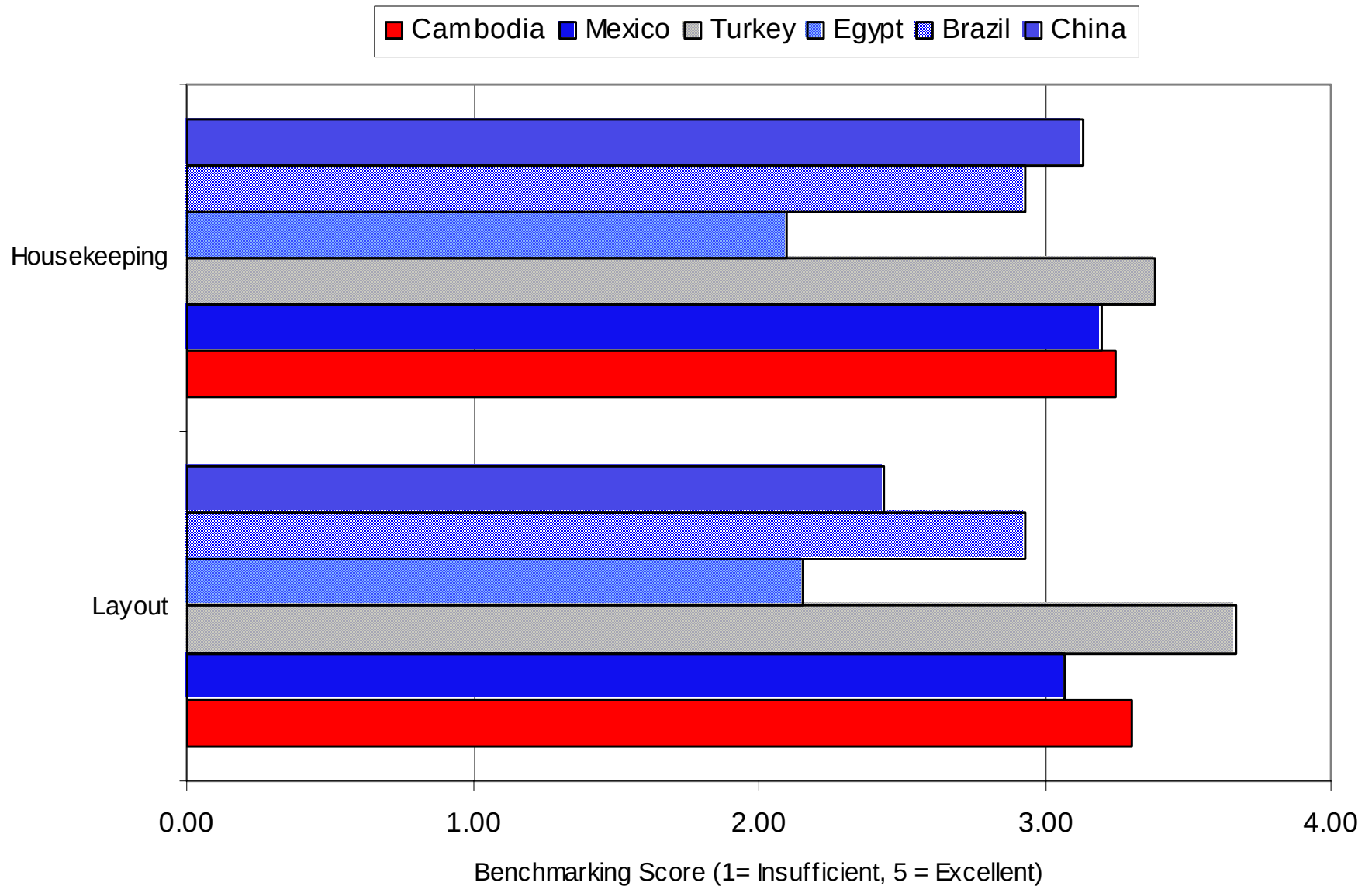
Overall Benchmarking Scores



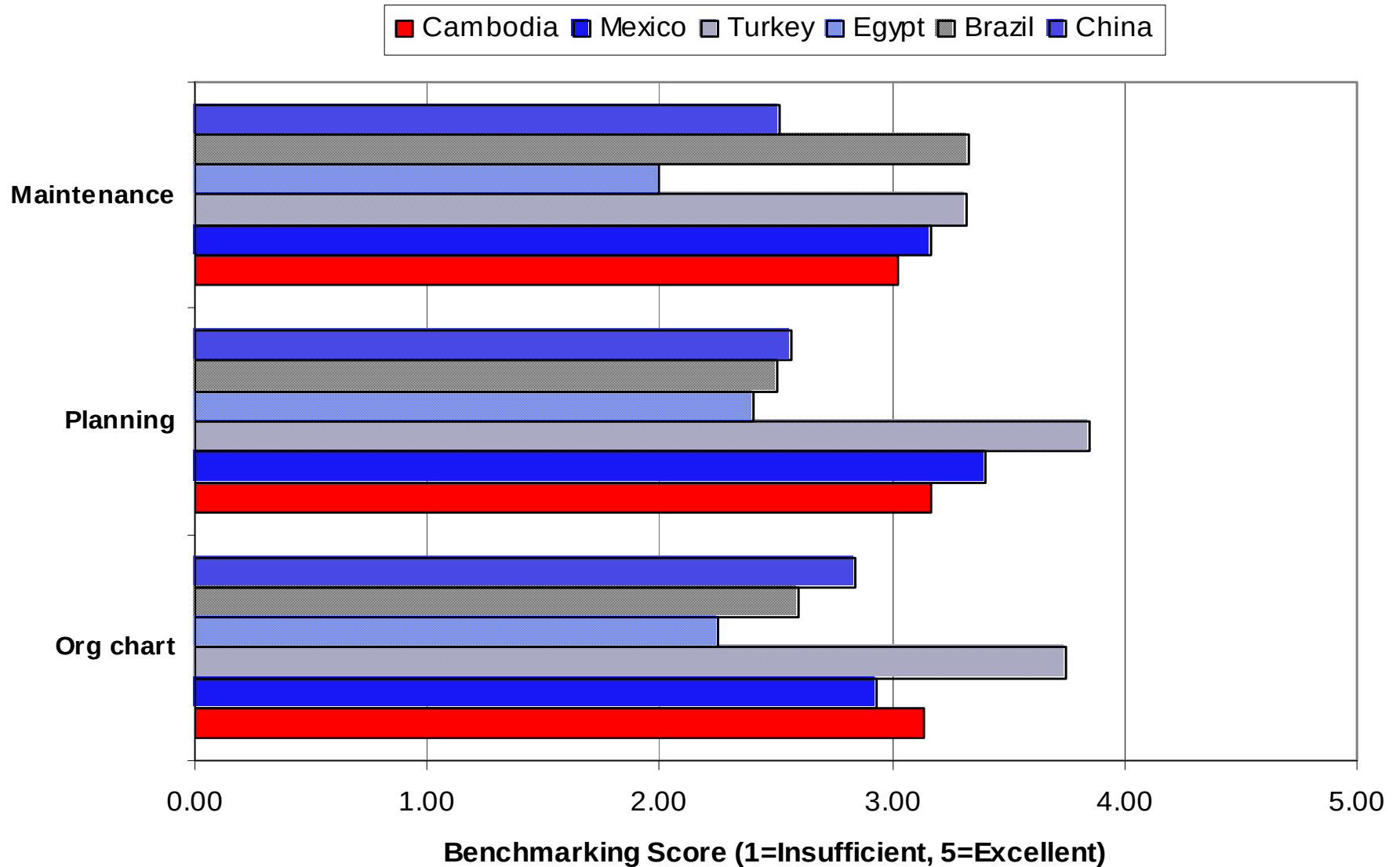
Factor-Specific Benchmarking



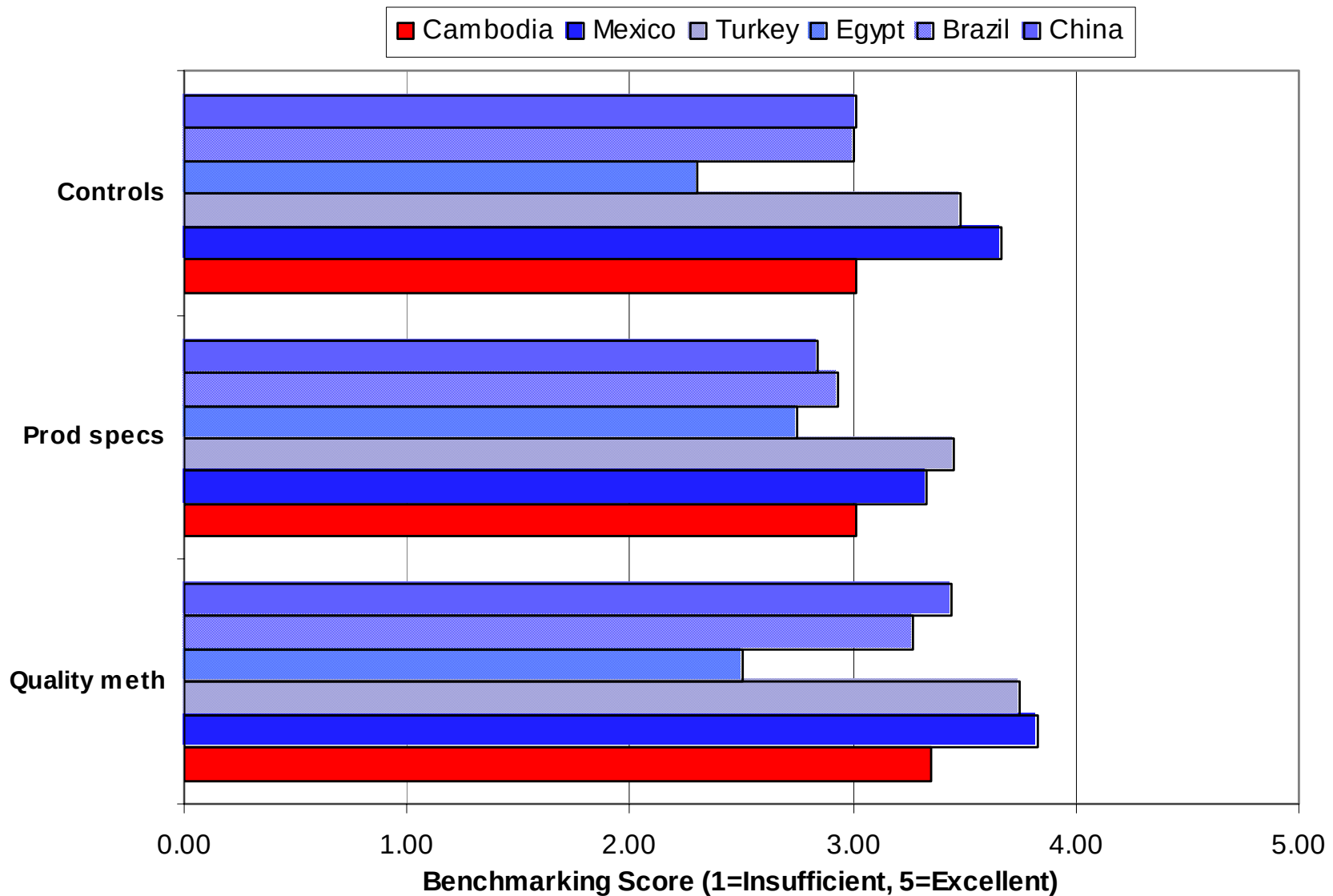
Cambodia Better Than Average (I)



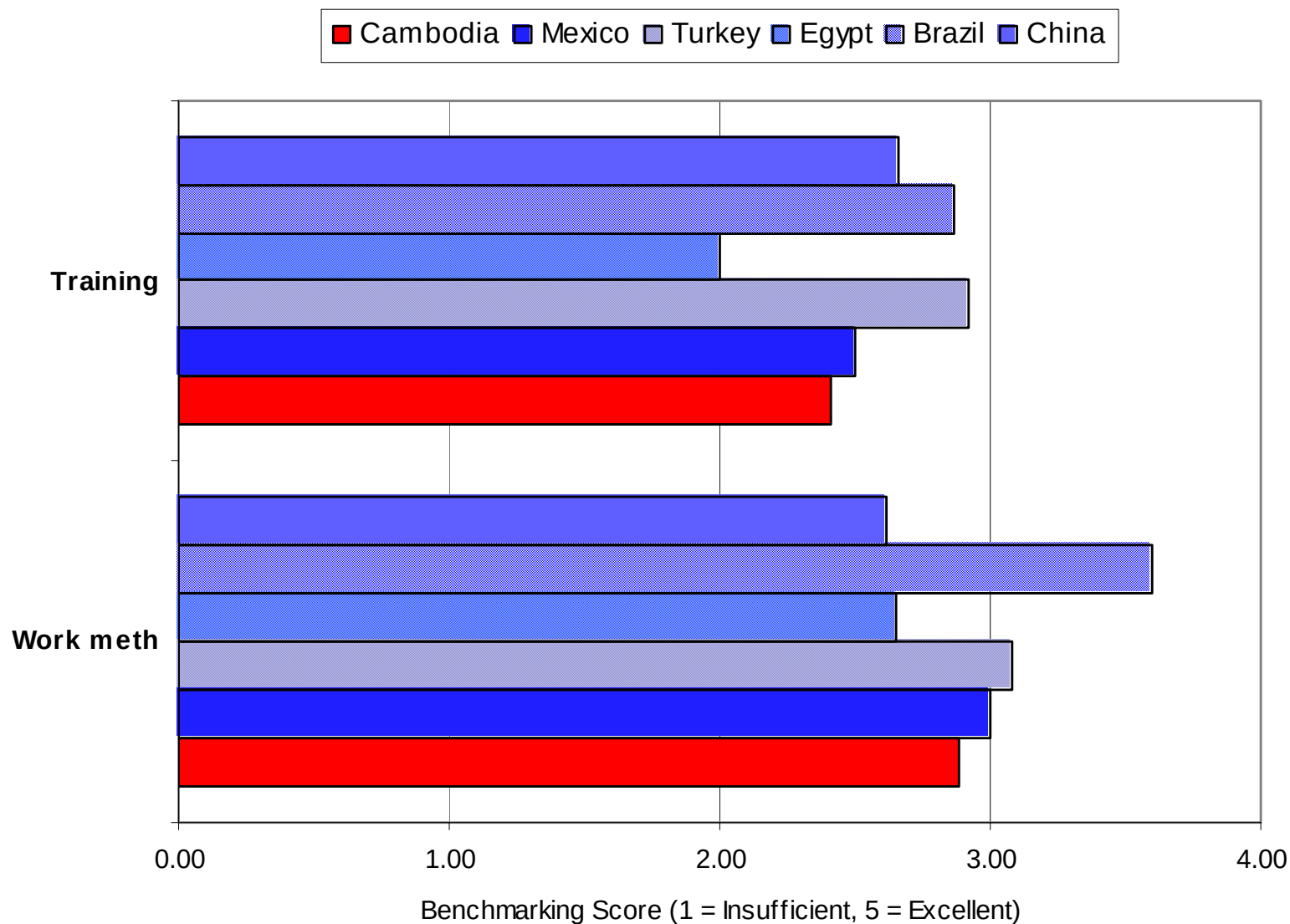
Cambodia Better Than Average (2)



Cambodia Lags Behind Average (I)



Cambodia Lags Behind Average (2)



Approach to Productivity Improvement

Supplier Requirements

Value

- Competitive pricing
- High productivity
- Efficient component sourcing
- Return on investment

Product

- Consistent high quality
- Disciplined QA
- Short throughput time
- Product mfg know-how

Service

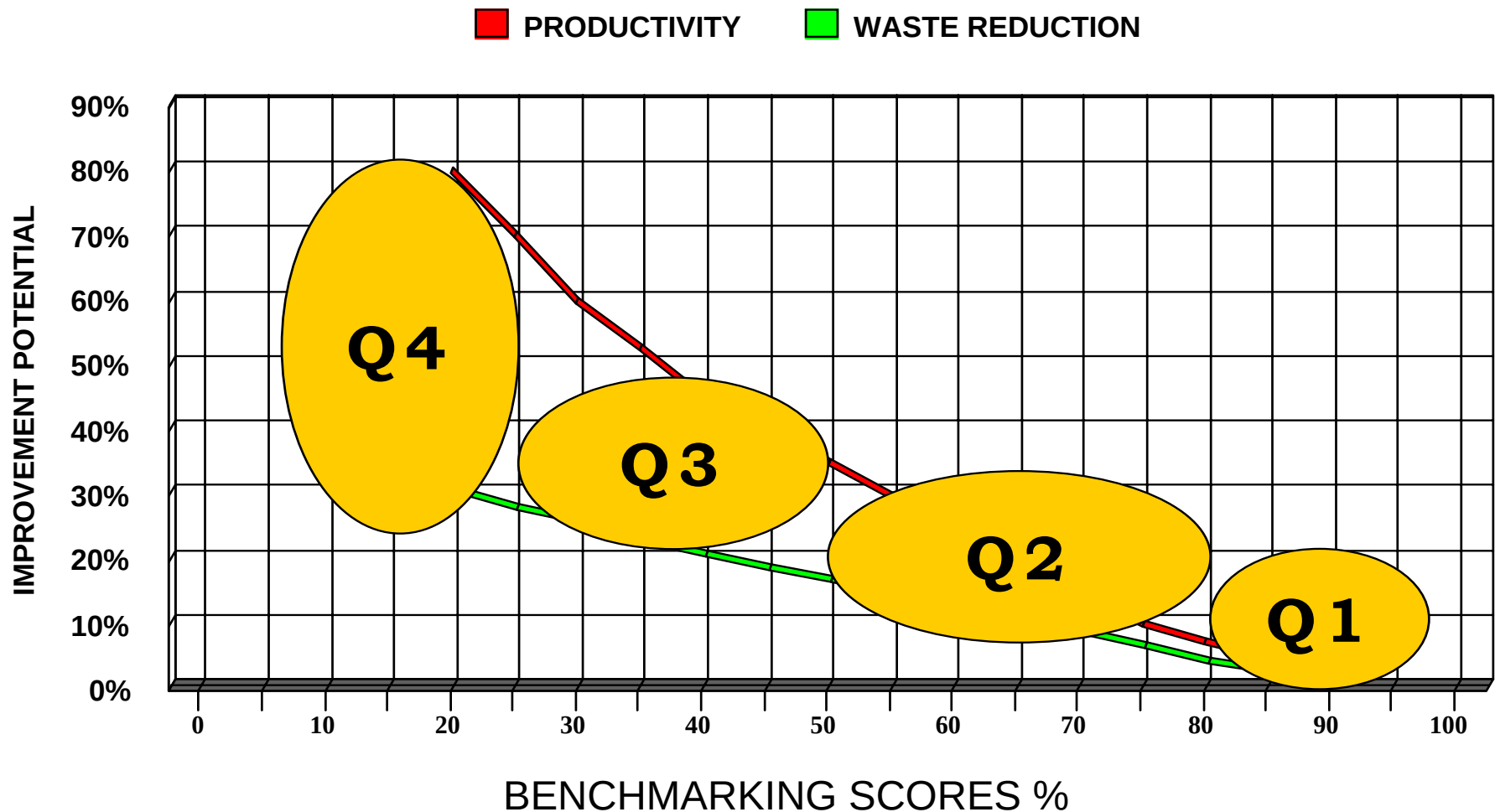
- Communication
- Timely & accurate shipments
- Short lead time
- Problem resolution
- High image

Productivity Improvement Potential

- ***Cambodia's garment factories have tremendous potential to increase productivity; productivity improvements of 15–20% can be achieved***
- Highest priority = systematic program to introduce modern management concepts, particularly at the middle management level, including
 - Production engineering
 - Work study
 - Systems and controls

Possible Paths to Improvement

IMPROVEMENT POTENTIAL



Company-Level Priorities

- Training and professional development to implement such a program are needed in most of the companies surveyed
 - Particularly important to train Cambodian middle management and supervisors
- Need to address weaknesses in
 - Production controls & engineering
 - Work organization

Company-Level Action Program

- Preparation of **technical specification** sheets
- Training & implementation of **time study**
- Preparation of **balance calculations** for line, operator, & client orders
- Introduction of **target setting** for operators, lines, dates
- **Middle mgmt training** to analyze controls & act on them
- Introduction of **efficient operator selection**
- Sewing floor **supervisor training**
- Individual **hourly operator/production control**
- Preparation of **training instructors for operators**
- Operation **cycle control**
- Changing and training for **layouts**
- Systems for control of **materials, time, energy**
- **Waste reduction system** in cutting

Sector-Level Strategy

- In-house capacity to implement suggested changes is lacking
- Recommend consideration of a Garment Sector Productivity Center in Cambodia to train Cambodian middle management, supervisors
- Would provide
 - Range of specialized technical & training services
 - Training of staff at enterprise level
 - Technical assistance to garment companies
 - Local capacity to provide consulting services

Benefits of Improved Productivity

- Increased
 - Volume of outputs
 - Skilled middle management and operators
- Improved
 - Housekeeping
 - Quality of products
 - Customer service
 - Safety
 - Flexibility of workforce
- Reduction in
 - Volume of rework
 - Volume of complaints, rejects
 - Lead times, number of late deliveries
 - Number of machine breakdowns, machine downtime
 - Absenteeism, employee turnover
 - Overtime
 - Space cost per unit value of product

⇒ **Higher profits**

Thank You

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