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A worldwide benchmarking study of KM, IC and their impact on organizational performance

Prof. Aino Kianto
School of Business and Management
Lappeenranta University of Technology
Finland
aino.kianto@lut.fi

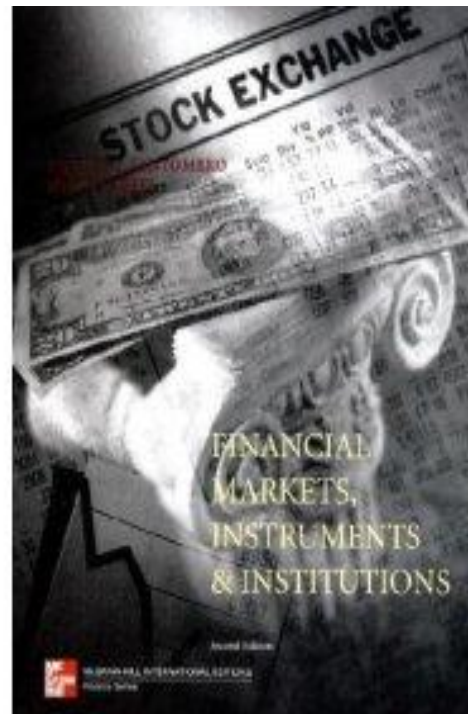
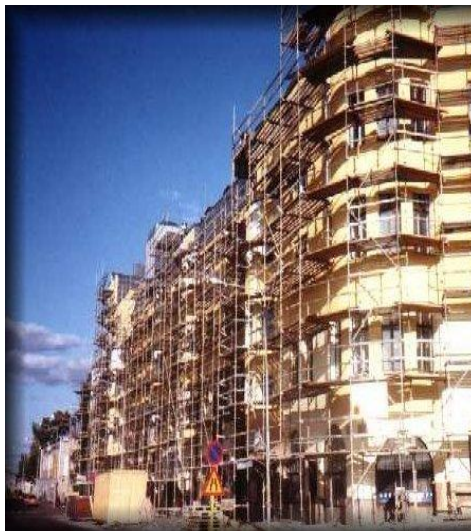
Knowledge is capital



Financial capital
Stocks, shares,
investment instruments

Intellectual capital
Individuals, organizations,
networks

Physical capital
Factories, buildings,
machines



Communication First

Japanese >>

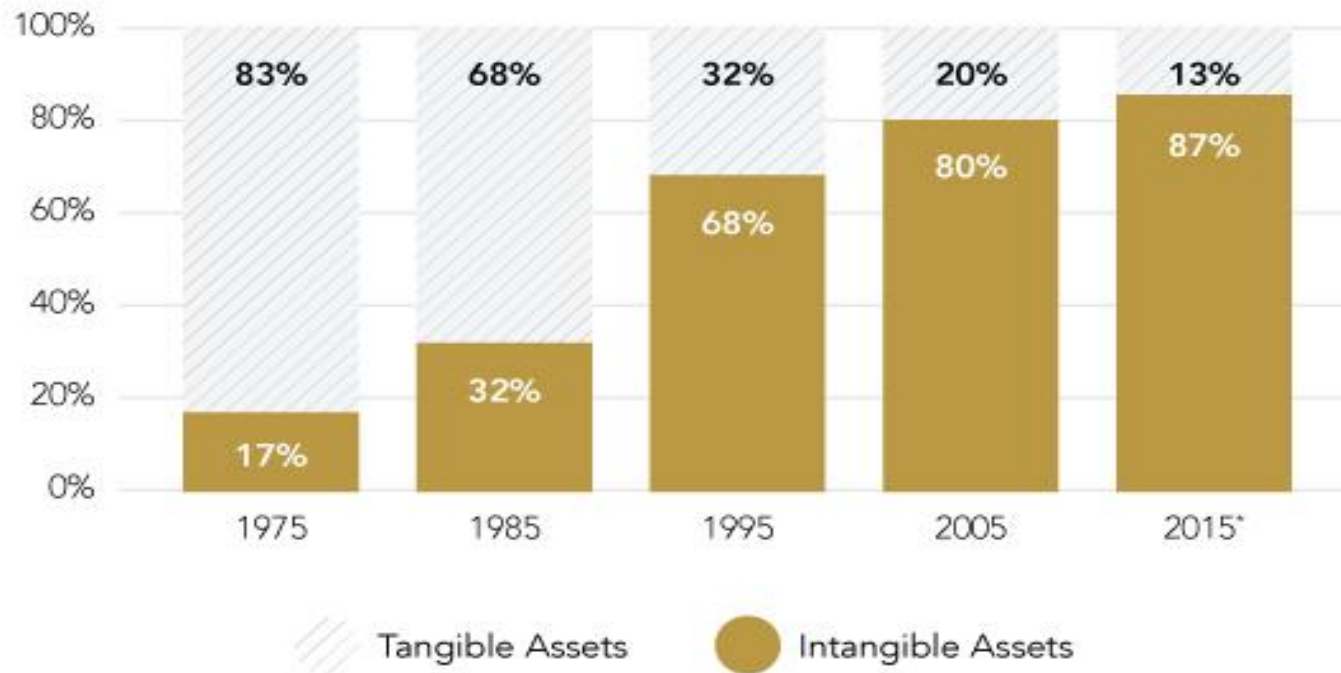
English >>

Chinese >>

Economic value is increasingly intangible



COMPONENTS of S&P 500 MARKET VALUE



SOURCE: OCEAN TOMO, LLC

Knowledge economy



- Knowledge is the key factor of production
- Intangibles create a significant share of value added
- Knowledge content of goods, services and processes is high
- Knowledge is an important product in itself
- Economic laws have changed
 - Ownership of knowledge is problematic
 - Intangibles can be used for multiple purposes simultaneously
 - Investments are risky
- Nature of workforce has changed: knowledge workers
- Novel forms of organizing

Knowledge management



- Knowledge Management = a novel perspective on organizational governance in the knowledge economy
- New economy which is based on knowledge requires novel management methods and practices
- While knowledge has always been "managed", KM as a conscious effort begun in the early 1990s
- Problem-based with strong practical applications
- Knowledge management provides models and tools for advancing organizational capability for creating value from knowledge and competence
- Cross-disciplinary
- Cuts across organizational functions and silos

Knowledge and organizational performance



- Knowledge-based value creation is based on intellectual capital assets and the ability to manage knowledge =
intellectual capital * knowledge management

Intellectual capital

- Firm's knowledge and skills, its external relationships and other immaterial assets
- What the organization owns
- Static, current situation

Knowledge Management practices

- Intentional and systematic processes, methods and practices that enhance the growth and utilization of IC
- What the organization does
- Dynamic, practices

Worldwide Benchmarking study of KM and IC



- **More than 800 organizations examined globally so far**
- **Survey research strategy**
- **Project leader: Lappeenranta University of Technology, Finland**
 - Prof. Aino Kianto, Prof. Paavo Ritala, Dr. Mika Vanhala, Dr. Henri Hussinki
 - **Partners:**
 - The Hong Kong Polytechnic University, Hong Kong
 - University of Rome 3, Italy
 - Deusto Business School, University of Deusto, Spain
 - St.Petersburg University Graduate School of Management, Russia
 - Educons University, Serbia
 - Research on-going in Brazil and Portugal, planned in Taiwan, Singapore and Pakistan

Research contexts



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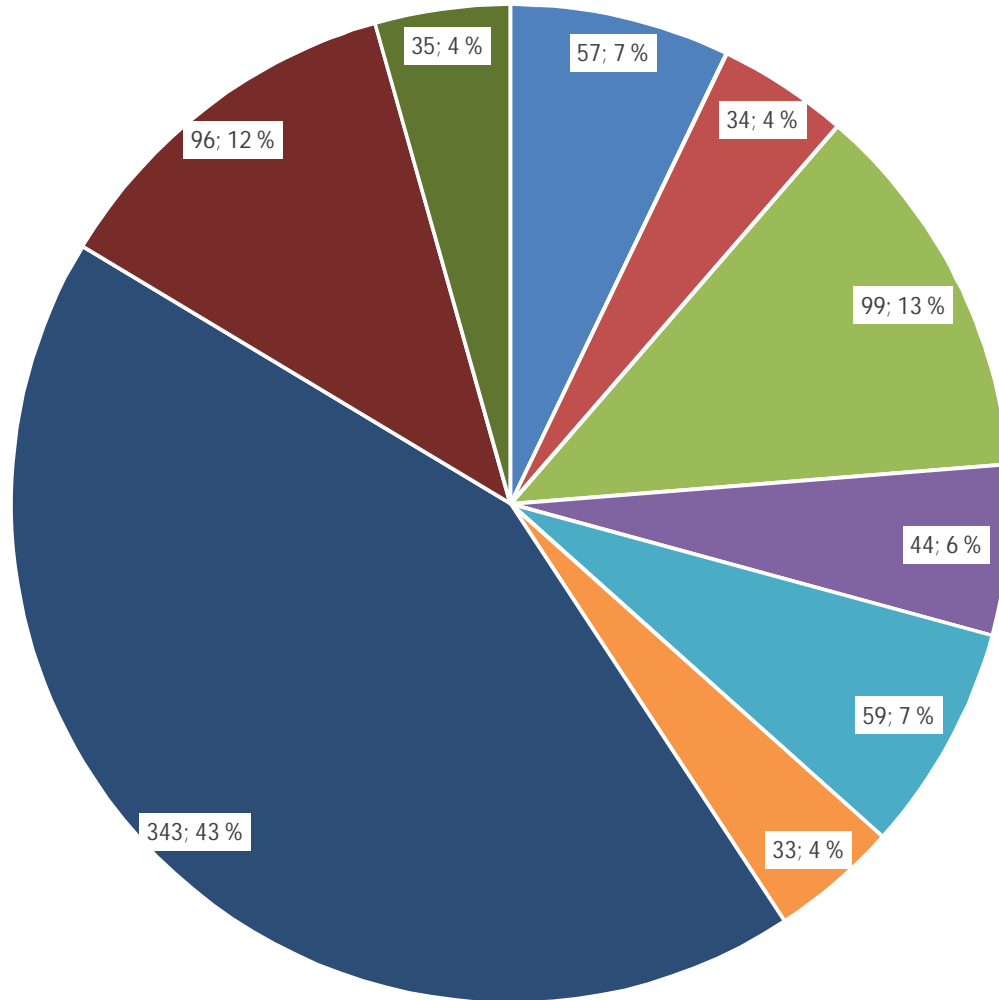


Descriptives



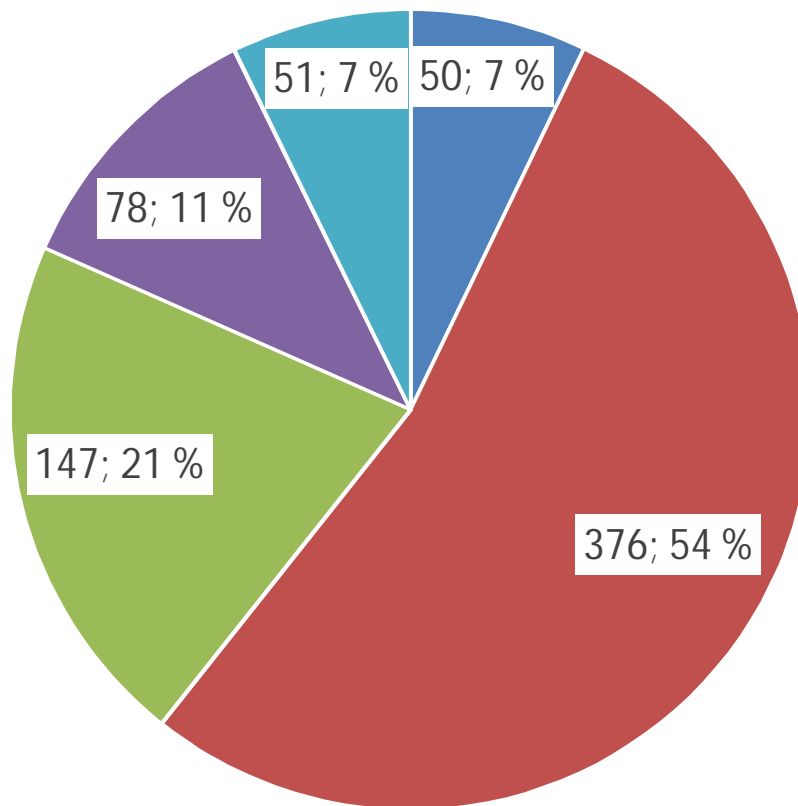
	Finland	Spain	China	Serbia	Russia	Italy
N	259	180	96	80	87	102
Age (mean)	28.5	31	23.02	21.24	18.99	28.9
Sales 1000 eur (mean)	156775	92018	not available	97667	627205	819755
Personnel (mean)	446	337	6873	762	7037	2411
Personnel (%):						
100-249	53.7	65.7	28.2	34.7	22.4	47.5
250-499	23	22.5	11.8	26.7	20	18.8
500-999	10.7	8.4	24.7	18.7	7.1	12.9
1000+	9.4	3.4	35.3	20	50.6	20.8

Industry distribution



- PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES
- ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES
- INFORMATION AND COMMUNICATION
- TRANSPORTATION AND STORAGE
- SERVICES
- CONSTRUCTION
- MANUFACTURING
- WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES
- OTHER

Respondent status



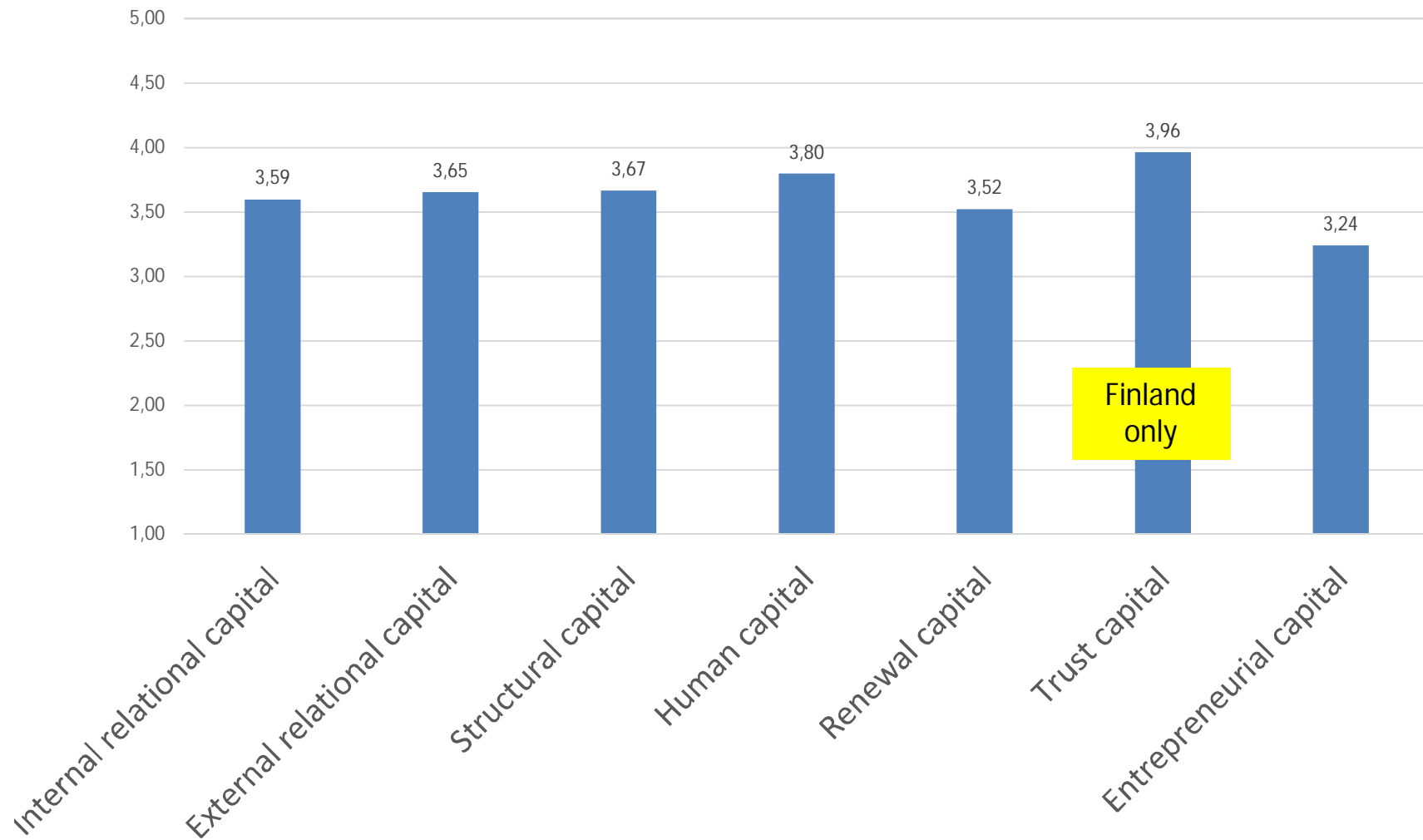
- Managing director
- Manager or director responsible for human resources administration
- Other manager or director
- Expert or clerical employee
- Other

Intellectual capital assets



- **Human capital** (employee skills, motivation, expertise)
- **Structural capital** (organization's information systems, tools, facilities, databases, documents)
- **Internal relational capital** (collaboration and mutual understanding within the organization)
- **External relational capital** (collaboration and mutual understanding with key external parties)
- **Renewal capital** (organizational creativity, learning and possession of up-to-date knowledge)
- **Trust capital** (the climate of trust existing in intra- and inter-organizational relationships)
- **Entrepreneurial capital** (risk-taking, initiative and identification of new opportunities by the organization)

Intellectual capital



Lowest IC Item Scores – Finland vs. China



- Finland
 - Our employees take deliberate risks related to new ideas ENTCAP
 - Risk-taking is regarded as a positive personal quality in our company. ENTCAP
 - Our employees have the courage to make bold and difficult decisions. ENTCAP
 - Different units and functions within our company – such as R&D, marketing and production – understand each other well INTREL
 - Existing documents and solutions are easily accessible STRUCAP
- China
 - Our employees have the courage to make bold and difficult decisions ENTCAP
 - Our employees show initiative ENTCAP
 - Our employees are excellent at identifying new business opportunities ENTCAP
 - Different units and functions within our company – such as R&D, marketing and production – understand each other well INTREL
 - Our company has efficient and relevant information systems to support business operations STRUCAP

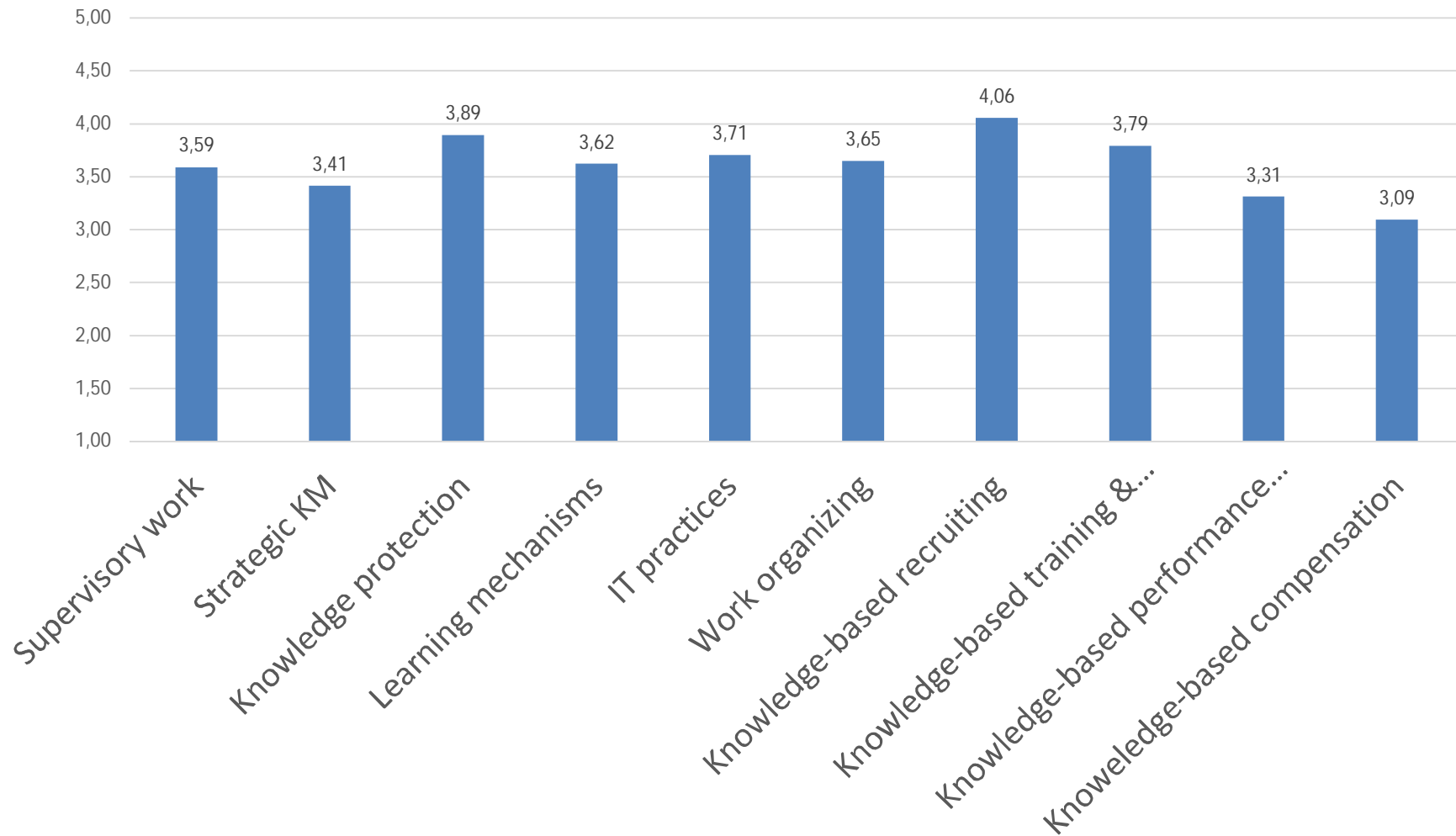
Knowledge management practices



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- **Strategic KM practices** (the strategic planning and implementation activities related to the knowledge-based assets in the firm)
- **KM leadership** (supervisory behaviors that support a knowledge-friendly culture, e.g. tolerance of mistakes, encouragement of active questioning)
- **Knowledge protection** (protecting strategic knowledge by formal and informal means)
- **Human Resources Management practices** (recruitment & selection, training & development, performance appraisal, compensation)
- **Learning mechanisms** (means by which knowledge and skills are collected, shared and utilized, e.g. mentoring)
- **ICT practices** (utilization of information technology for information search, analysis and distribution)
- **Organization of work** (division of decision-making authority, enabling employee interaction, integration of heterogenous expertise)

Knowledge management practices

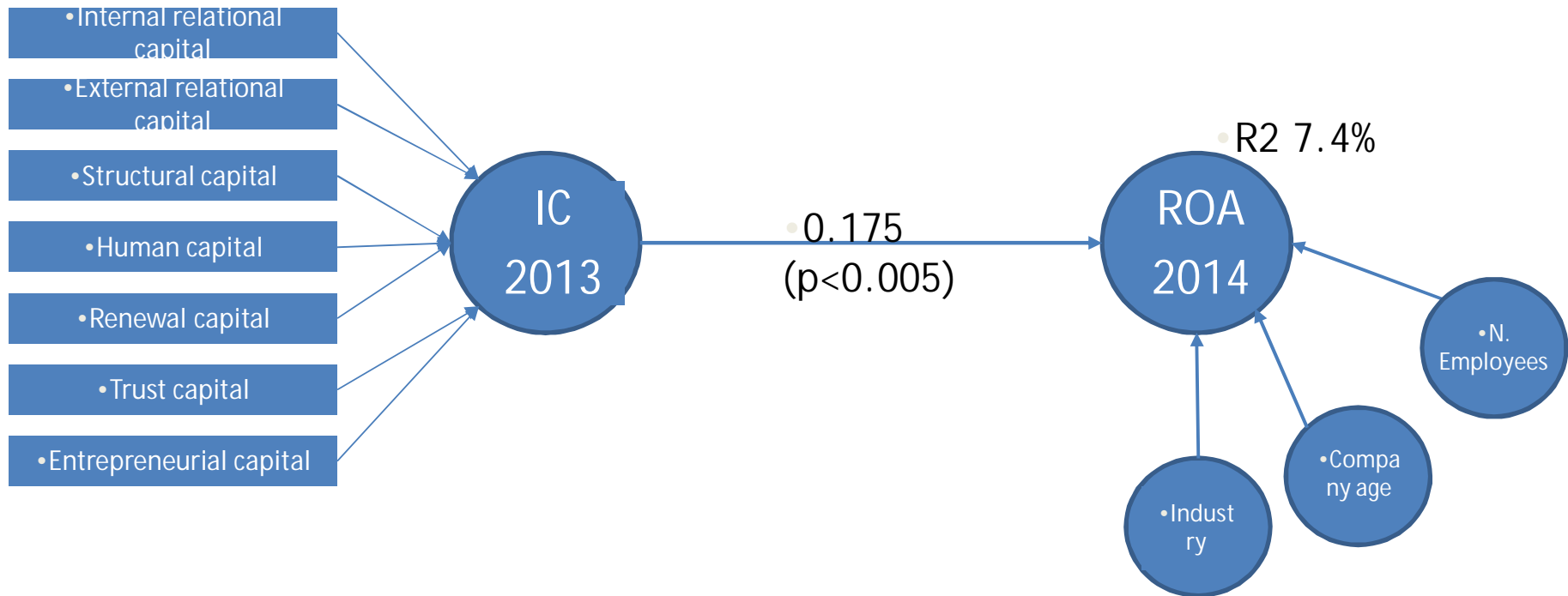


Lowest KMP Item Scores



- Finland
 - Our company rewards employees for sharing knowledge. HRMCOMP
 - The creation of new knowledge is one of our criteria for work performance assessment. HRMPAPP
 - Our company rewards employees for creating new knowledge. HRMCOMP
- China
 - Our company rewards employees for sharing knowledge. HRMCOMP
 - Our employees have an opportunity to participate in decision-making in the company. WORKORG
 - In our company, work duties are defined in a manner that allows for independent decision-making. WORKORG
- Russia
 - Our company rewards employees for sharing knowledge. HRMCOMP
 - Our knowledge and competence management strategy is communicated to employees clearly and comprehensively. STRATKM
 - Supervisors encourage employees to question existing knowledge. KMLEAD
- Italy & Spain
 - Our company rewards employees for sharing knowledge. HRMCOMP
 - Our employees have an opportunity to participate in decision-making in the company. WORKORG
 - In our company, the responsibility for strategic knowledge management has been clearly assigned to a specific person. STRATKM

Impact of IC on financial performance (Finnish firms)



Impact of KMPs on innovation (Finnish firms)



Variable	Mean	SD	1
1. Innovation performance	3.29	0.52	
2. Supervisory work	3.46	0.59	.315**
3. Knowledge protection	3.96	0.80	.174*
4. Strategic KM	3.40	0.74	.351**
5. Knowledge-based recruiting	4.18	0.55	.189**
6. Knowledge-based training & development	3.93	0.74	.267**
7. Knowledge-based performance appraisal	2.99	0.81	.171*
8. Knowledge-based compensation	2.73	0.96	.271**
9. Learning mechanisms	3.39	0.78	.182**
10. IT practices	3.57	0.59	.302**
11. Work organization	3.78	0.55	.273**

Table 1 Correlation matrix for the research model

Notes: **. Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level

However, on further inspection, the impact of IC/KMP on performance...



- Varies across countries
 - E.g. in Finland, external relational capital is the key booster of innovation performance, while in Russia and Spain it is structural capital
- Varies between industries
 - E.g. in low-tech firms, renewal capital is the key antecedent of innovation, while in high-tech firms it is entrepreneurial capital
- Varies as a function of performance variable
 - E.g. innovation performance increased by strategic KM and compensation, while market performance by KM leadership and training&development
 - External relational capital is more important for product/service innovation, while structural capital for managerial innovation
- Can even be negative!
 - E.g. Knowledge-based recruiting and learning mechanisms can decrease innovation performance
 - Knowledge-based performance appraisals and compensation have negative interaction effects on radical innovation performance

Worldwide KM/IC Benchmarking Study - Benefits for organizations



- Benchmarking of the organization's KM against the database of 800+ European organizations
- Targeted feedback on the key strengths and weaknesses of the organization's ability to manage knowledge
- Gaining a holistic understanding of value generating KM practices
- Helps to build a KM strategy and make investment decisions
- Provides a communication tool
- Assessment tool which can be adopted for further external and internal benchmarking and for examination fo longitudinal development over time

The Hong Kong 2018 edition of the Benchmarking study



- The aim is to learn ***what kind of tools and practices leading companies implement for managing knowledge*** and thereby to increase understanding of the best practices for managing knowledge
- The focus of the HK Edition is on specific target organizations that have been identified as leading KM organizations in Hong Kong
- Participation in this research is by invitation only
- The research project is funded by Foundation for Economic Education and by Emil Aaltonen Foundation in Finland. There is no fee to the participating organizations.

Conclusion



- In the current knowledge economy, a significant portion of value creation is based on knowledge
- Knowledge-based value creation is due to
 - Intellectual capital
 - Knowledge management practices
- Knowledge-based value drivers can be reliably assessed and systematically developed

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TRAILBLAZER

Show the way.
Never follow.

