Knowledge Is What It Is All About!

“The basic economic resource is no longer capital, nor natural resources, nor labor. It is and will be knowledge.”

Peter Drucker – (1994 Post-Capitalistic Society)
“A future challenge is to embrace strategy that includes knowledge as a strategic asset. Knowledge and its management are emerging as a requirement for sustainable competitive advantage.”

Sporleder & Peterson, 2003 - paraphrased
The New Challenge

Previously, we – and many still do – focused on the visible:
Work and information flows, transformations, and how people worked with their hands.
Now, to be competitive, we must focus on how people work with their minds and how knowledge and understanding are created, exchanged, utilized, renewed, preserved and flow.

These are the new challenges.

Statement by the president of a large manufacturing organization
1. Intellectual Capital (IC) and Knowledge
IC and Competence Start with People

Personal Competence

Enterprise Competence

Enterprise Intellectual Capital

City/Region Competence

City/Region Intellectual Capital

Societal Competence

Societal Intellectual Capital
The Intellectual Capital Perspective

Intellectual capital in all its forms is the major enabler of enterprise performance.

To be competent and competitive, IC must be widely distributed and applied throughout the enterprise.

Effective and systematic KM is needed to provide the required IC.
Examples of Industry & Business IC

*Intellectual Capital Is Embedded in*

- Market positions, strategies, and tactical practices
- Proprietary patents and technologies
- Customer and supplier relations
- Unique products and services
- Management and strategy capabilities
- Culture and relations with employees
- Crafts and professional worker competence
- Management practices and philosophy
Work Knowledge Covers a Wide Domain!

Metastrategic Knowing

- Metastrategic Knowledge
  - About Strategies to Address Task Goals

Metaskinship Knowing

- Metaskinship Knowledge
  - About Task Goals

Metacognitive Knowing

- Metacognitive Metaknowledge
  - Metaknowledge about Declarative Knowledge

Procedural Metaknowledge

- "Know How" i.e., Knowing Strategies for How to Proceed

Metaknowledge

- "Know What" - i.e., Knowing What Is Known

Strategic & Methodological Knowledge

Task Specific (Craft & Professional) Knowledge

- General Schemata
  - Understand Principles for How Best to Support Company's Strategy and Intensions

- Script Knowledge
  - Know Broadly How and with Whom to Deal When Proposing Design Improvements

- Operational Models
  - Know in Detail How and When to Handle Design Issues

- Skills & Routine Knowledge
  - Know How to Deal with Coworkers and Superiors in Daily Matters

Example: Mechanical Engineer in Manufacturing Company
Pursue Systematic Situation Management!

Personal Intellectual Capital
(Action-Oriented Operational and Governance IC Assets)

Mental Reference Models - Concepts - Understandings - Judgments - Principles - Facts

Environmental Scanning

Information Gathering

Proactive Alertness

Target Situation

Information on Focus

Sensemaking

Specific Information

Understanding of Situation

Guidance & Corrective Adjustment

Situation Awareness

Feedback

Governance Competence and Perspectives

Actions That Change Situation

Decision-Making and Problem-Solving

Decision: Selected Action-Option

Action Space and Innovation Capability

Monitoring

Feedback

Guidance & Corrective Adjustment

Execution Capability

Implementation

Effective Action

Implemented Action

Focus Areas

Monitoring

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2.

Knowledge Work and Knowledge Workers
Work Complexity Categories

1. Basic Routine Work
2. Near Routine Work
3. Regular Complicated Work
4. Uncommon Complicated Work
5. Complex Work
6. Chaotic Work Challenges
7. “Black Swan” Event Management
Work: More Productive and Complex

Jobs by Category in USA - Years 2004 and 2014

Work Complexity Categories

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Knowledge Worker Categories

1. Unskilled Workers
2. Beginners – Novices
3. Advanced Beginners – Apprentices
4. Competent Performers – Journeymen
5. Proficient Performers – Craftsmen
6. Expert Performers – Masters
7. Elite Performers – Grand Masters
3. Knowledge Management (KM)
Employ KM to:

- Strengthen competitiveness by enhancing implementation of strategic goals and to create new strategic options
- Increase personal expertise to facilitate better situation management everywhere
- Improve infrastructure and IC assets to make the enterprises more effective
- Increase individual people’s capabilities to build competent workforce, improve their lives and support broader functions
We All Know That:

KM is the systematic and deliberate Strategic, tactical, and operational initiatives to

1. build, 2. renew, 3. deploy, and 4. apply
knowledge and other IC assets
to maximize
the enterprise’s knowledge-related
effectiveness and success through
innovative and competitive decisions and actions.
Examples

Strategic Considerations

- Determine KM & IC Roles & Requirements to Support Enterprise Strategy

Create New Intellectual Capital

- Plan & Fund HR, R&D & Other Areas to Create & Improve Enterprise Intellectual Capital

Tactical Initiatives & Plans

- Develop & Build Capabilities and Infrastructure
  - Create & Provide Technological KM Capabilities

Conduct Daily Regular Operations

- Facilitate & Monitor Use of Best Knowledge & Institute New Operational Practices

Operational Activities

- Acquire and Codify Knowledge
- Build, Deploy & Support "KM Systems"
- Build, Supply and Support KM-Related IT Infrastructure

- Conduct Work Utilizing Available IT Infrastructure & KM Systems
- Conduct Work Using Best Available Knowledge & Learn Continuously
- Employ Operating Practices like Communities of Practice & Collaborative Teams

- Conduct R&D & Other IC-Creating Activities
- Train, Educate
- Promote, Hire & Manage Personnel at All Levels
- Work Closely with Customers and Suppliers & Other Stakeholders
KM Means Change!

Widespread Knowledge-Leveraging Mentality is cornerstone for ‘doing business differently’!

Competitive enterprise performance results from conscientious application of superior intellectual capital.

Superior IC is built by constant innovation and wise KM investments and trade-offs.

High performance comes from effective practices, arrangement of work, organization structure, infrastructure, and systems and procedures.
To Reach Performance Takes Time!

KM Initiative → Operational Excellence
   Initial Activity
   Operational Focus Benefits & Effects

Product & Services Leadership
   Intermediate Benefits and Effects
   Product & Service Focus Improved Deliverables

Customer Intimacy
   Bottom-Line Effects
   Customer & Market Focus External Benefits & Reaction

Enterprise Viability
   Competitiveness & Profits

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Knowledge Diagnostics Is Multi-Dimensional!

Understand Diagnostics Methodologies

Understand Nature of Intellectual Work under Varying Conditions


Understand Applicability of Different Knowledge-Related Initiatives and Solutions

Knowledge Diagnostics
Critical Knowledge Functions (CKFs)

1. Types of knowledge, expertise, or skill required to perform tasks effectively.

2. Business use – the purpose – of knowledge to perform the business function.

3. Constraints, vulnerabilities, or unrealized opportunities resulting from insufficient knowledge or conditions that prevent knowledge to be utilized fully.

4. Alternatives for managing (i.e., improving or correcting) the CKF.

5. Business value of providing better IC assets.
Common KM Misunderstandings

We Must Remember That:

- People Remember Stories and Concepts
- People's Decisions Are Nonconscious
- People Have Different Cognitive Styles
- Ignoring Primary Modes of Cognitive Processes Leads to Ineffective Preparation and Support of People
- Management and Operating Practices Which Do Not Support People's Capabilities and Natural Behaviors Impairs Work
- Stress Impairs Retrieval from Long-Term Memory
- People Tend to Pursue Role Model Behaviors
- Complex Work Requires More Knowledge than a Single Person Normally Possesses
- Excessive Focus on Information Makes Us Manage Knowledge Inappropriately
- Information and Knowledge Are Fundamentally Different

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4.
Competitiveness, IC and KM
IC and Business Goals

Business goals are reached by effective actions by people at every level.

Proactive organizations use targeted KM to:

- Build personal competence.
- Embed knowledge in structural IC.
- Provide KM infrastructure and long-lead knowledge-related initiatives.
- Make everyone understand business goals and how to achieve them
  - and how expertise helps every one!
KM-Related Competitive Strategies

Customer Intimacy

Rely on Consistently Good Expertise and Other IC Assets to Improve Customer Relationships

Product and Services Leadership

Use Deliberate and Systematic KM to Create and Market Competitive Products and Services

Operational Excellence

Build Competitive Knowledge to Innovate and Improve Operations – to Enhance Productivity, Quality, Costs, and Working Conditions
Customer Intimacy Strategy

Examples of Potential KM Efforts

- Formulate Customer-Focused strategy and use KM to ascertain that everyone understands their role in its implementation
- Learn about the Customer's world and adapt that understanding to shape Products and Services
- Share understanding of customers and customer's customer broadly within the enterprise
- Innovate to create products and services that make it possible for customers to create value-added for their customers

Examples of Resulting Effects on Customer Intimacy

- Customers perceive high and increased value of the enterprise's products and services
- Customers perceive that dealing with the enterprise provides a foundation for continued success
- Customers are satisfied that the enterprise understands them and that it meets their needs
- Customers perceive that the enterprise's products and services help to create value for the customer's customers

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A Customer Intimacy Example

- Management philosophy and strategy: Provide customers with IC to manage their own affairs and portfolios

- Strategy requires customer representatives to have extensive IC: facts, understanding, knowledge of choices, methodologies, and world in general

- Company is broadly supportive of IC development and provides incentives and recognition

- Corporate leaders are convinced that widely distributed and excellent IC is best strategy

- Chairman and CEO delegates authority to responsible VPs and supervisors – but learn themselves to detect opportunities to change strategies when needed
Product & Services Leadership Example

- Senior management leads by example and communicates extensively
- IC must be widespread to support everyone’s performance
- Everyone is encouraged to be innovative and share their ideas and solutions
- LLL is supported with in-house courses, seminars, and on-line materials and help with university courses
- IC creators and knowledge sharing are recognized and rewarded
- Taskforces create new marketing and product ideas
- Employees are trusted with sensitive IC
An Operational Excellence Example

- Wide recognition that “Knowledge Is Power!” for the enterprise when shared and used effectively
- Management’s visible and deliberate practices provide positive motivation of voluntary knowledge sharing as a natural approach to work
- Philosophy that all employees must be provided with competence to act independently, intelligently and quickly – and at the same time collaboration is widely encouraged
- Use outside experts whenever possible without “Not Invented Here” syndromes
- Results: Lowest cost provider, Highest quality provider, Most successful competitor in industry
5.
The Broader Perspective
KM and Society
Innovation v. KI for 137 Countries

Source: World Economic Forum
Success in the Knowledge Economy

- Attractive Cost, Quality and Features of Competitive Goods and Services
- Continued IC Growth and Innovation
- Dependable Business Environment - e.g., Business-Friendly Government, Effective Financial System, Lack of Corruption, and “Tolerable Administration of Justice”*
- Acceptable International Relationships
- Stable and Acceptable Domestic Conditions

* From Adam Smith
Prosperity and Knowledge

Legatum 2009 Country Prosperity Rank vs. World Bank Knowledge Index

Knowledge Index

Prosperity Is Better than KI Indicates

Prosperity Is Worse than KI Indicates

R² = 0.8195

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Competitiveness and Democracy

2008 Competitiveness Score vs. 2008 Democracy Index for 129 Countries

Sources: The Economist 2008 and World Economic Forum 2008
Aspects of Effective KM

Management Mindset and Practice – Knowledgeable people perform well and act responsibly when given the opportunity and it also is in their best interest. Remember: Managers’ Behaviors Are Role Models!

Deliberate and Systematic KM – Strategic, tactical, and operational KM must provide enterprise-wide IC, acceptance and knowledge-oriented culture.

Motivation and Personal Focus – People must understand what quality work means for customers, the enterprise, and particularly, for themselves.

Permission – People need trust, authority, decision rights, and safe environment – with Consistent Accountability.
World Bank Knowledge Index (KI)

Basic Scorecard (KAM 2009) Basic Snapshot of the Knowledge Economy Readiness

Three key variables serve as proxies for each Knowledge Economy pillar:
  • Economic Incentive and Institutional Regime,
  • Education, Innovation, and
  • Information & Communications Technology (ICT),

  (plus two variables for the overall economic and social performance).

Knowledge Index (KI) is the simple average of the normalized country scores on
the key variables in three pillars – education, innovation and ICT.

Knowledge Economy Index (KEI) measures performance on all four pillars.
The scorecards demonstrate comparative performance - the variables are
normalized on a scale from 0 to 10 relevant to four possible Comparison groups –
all countries, region and income groups.

If a country performs worse over time on a certain normalized variable, this may
be because it:
  • actually has lost ground in absolute terms, or
  • improved slower than the comparative group.