Keeping Creativity & Innovation Going in Knowledge Organizations

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Abstract

As knowledge organizations succeed and grow, they operate by subordinating innovation to products and markets. Their new strategy is guided by the goal to capitalize on the strengths of their successful product(s) or to attain certain market positions. This is how they evolve from knowledge organizations to traditional organizations and are set on a path to slow growth. To allow for continuing growth, we will model a possible life cycle and operating characteristics by drawing examples from various knowledge organizations and so provide alternative strategies to keep creativity and innovation humming.
Who has the most knowledge of the job?

The Worker!

- Bring him in and you have it made.
Figure 1: Paradigm Shift in Management Role (Brelade & Harman, 2002)

Industrial Economy Paradigm

- Competitive advantage based on production processes and investment in plant

Information Economy Paradigm

- Competitive advantage based on information and investment in information technology

Knowledge Economy Paradigm

- Competitive advantage based on management of knowledge and investment in people

Equivalisation of access to capital and process technology

Manager as Controller Paradigm

Manager as Coordinator Paradigm

Manager as Facilitator Paradigm

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In Knowledge Economy

● It’s all about building and exploring knowledge
● It’s about exploiting knowledge
● It’s about human capital
● Creativity
● Being a prospector
● Staying ahead of the crowd to win
Manager

- There is so much knowledge in your reach to cash on
- ...Go ahead do it!
- ...It can be managed at your level, not only at other higher levels.
- ...Integrate, synergize, win!!
HOW DO WE DO IT?
Figure 2: The Knowledge Exploration Process
What is Innovation?

- Broadly speaking innovation is an idea, practice or object that is perceived to be new either by an individual or other unit of adoption (Rogers, 2003: 12; Van de Ven, 1986).
- Innovation may also include re-invention, which is modifying or changing an invention to make it adoptable and implementable (Rogers, 2003: 36) to the application at hand.
- Innovation is intentional and designed into the organizational system. It doesn’t just happen.
Productivity vs. Innovation

- Efficiency
  - Emphasis on costs and scales
  - Quality, close tolerances
  - Inwardly focused
  - Stress on customers, processes
  - Continuous improvement

- Innovation
  - Emphasis on the untapped
  - Unique, disruptive substitutes
  - Outwardly focused
  - Stress on new markets, and new technologies
  - Creative destruction
1,356 respondents world-wide by American Management Association and Human Resource Institute, more than two-thirds of the organizations, believe that innovation is highly-to-extremely important to them today, and it will become even more important to them in the next ten years (AMA, 2006: ix).
Tidbit

- Which is the mother of invention?
  - The necessity!

- Which is the mother of innovation?
  - Creativity!
What is Creativity?

- Imaginative solutions to problems primarily product of intrinsic motivation is creativity. It may not always involve discovering something new. Creativity could also be only unique adaptations of known solutions to new problems.
The Three Forms of Creativity

- (1) Creativity may be **brilliant** that involves having unusual thoughts and quick mind;
- (2) or, it may be **personally creative** that involves experiencing issues in novel and original ways, having fresh perceptions and insightful judgments; or,
- (3) it may be **creative** which involves radically changing culture through inventions and discoveries

Figure 3: How Much Creativity

Conceptualization
Design
Prototyping
Testing
Processes
Manufacturing
Marketing
Distribution

Organizational Functions

Creativity Latitude

High
Low

Conceptualization
Distribution
Figure 4: A Comprehensive Model of Discovery in Organizations (Amar & Juneja, 2007)
An employee with knowledge sees reality in an exceptionally broad range.

He sees problems and the hidden possibilities to solve them far beyond the anticipated powers of current conceptions (Polanyi, 1964, p. 124).
What does Innovation Need?

- Increase risk propensity
  - Tolerance for deviance
  - Allowing risk-taking and failure
- Creativity culture
- Entrepreneurial organization
- Concerted effort
- Switch focus from exploitation to exploration
Workers: The Theme of Innovation

- Workers become more creative when their work content and contexts support novelty. Work should also offer them complexity, stimulation, and support.

- The latter is essential because creative ideas vanish unless there are receptive people who are going to record and implement them (Csikszentmihalyi, 1997).
Based on Csikszentmihalyi (1997: 26), Creativity is an outcome of a system that consists of three elements:

- (i) a person who takes the initiative to bring novelty into the current or traditional ways (innovative individual);
- (ii) a team of supervisors, important colleagues, and other experts who encourage, recognize, and validate the innovation effort of the individual (innovation environment), and
- (iii) an innovation supportive culture that contains rules, policy, and traditions encouraging novelty and deviant behavior (innovation-supportive organization).
Recognizing Opportunities for Innovation
Straight Signs

- Longer ship-cycles (Greene, 2005)
- The time spent in meetings and the following up on what comes out of them increases. (“One either meets or one works” (Drucker, 1988).)
- Higher percent of employees arriving at 8 AM and leaving out at 5 PM. (Such workplaces see their roads jam up around the work start and finish times)
- R&D focus on upgrading/enhancing present products and services rather than introducing their revolutionary substitutes. Disruptive innovation is dreaded.
- More emphasis on process
The Signs of Lowered Emphasis on Innovation
The Operations

- Greater payroll cost in production and product servicing
- Fitting in standard or popular organizational structural and operational models
- Longer ship-cycles (Greene, 2005)
More dependencies among shipping products (Greene, 2005)

Less control over one’s product destiny (Greene, 2005)

Strategy shift to integrate successful products with innovation

Market conditions controls release of new products
The Management

- More bureaucracy
  - Higher administrator/staff Labor ratio
  - More rules and regulation
- The time spent in meetings and the following up on what comes out of them increases. (“One either meets or one works” (Drucker, 1988).)
- Higher percent of employees arriving at 8 AM and leaving out at 5 PM. (Such workplaces see their roads jam up around the work start and finish times)
The Finance

- Slow growth in stock price
- Low P/E ratio
- Steadily decreasing numbers of new millionaire-turned employees
The Strategy

- Corporate strategy focuses on exploiting the strength of company's successful products. New innovation that challenges “monopolized” products is condemned.
- Cost minimization, not value maximization
- R&D focus on the upgrading of present products and services rather introduction of their revolutionary substitutes.
The Strategy

- Focus on cost reduction rather than value enhancement; viz. automobile vs. pharmaceuticals industries (Sheehan, 2005)
- More emphasis on process
- Fitting in standard or popular organizational structural and operational models
CONTROL AND RELEASE

The contrasting styles and strategies of Jim McNerney and George Buckley

**McNERNEY**
- Huge. Renowned as a GE über-manager. Was runner-up to Jeff Immelt in the bake-off to succeed Jack Welch.
- Increase profitability at a company that had become a sluggish performer and a disappointment to investors.
- To remake the culture of 3M, instigated one of the most ambitious Six Sigma drives in corporate history.
- Clamped down on profligate spending to goose cash flow and improve operating margins.
- Held R&D spending constant and allocated funds to promising new markets such as pharmaceuticals.
- Instilled a GE-like managerial sensibility.
- From central casting. Former college baseball player is tall, athletic, and charismatic.

**BUCKLEY**
- REPUTATION UPON ARRIVAL
  - Almost nonexistent. Cut his managerial teeth at Emerson Electric and revived boatmaker Brunswick.
- MANDATE
  - Bring back the legendary creative oomph, while preserving the operating efficiencies McNerney won.
- ATTITUDE TOWARD SIX SIGMA
  - Dialed back on Six Sigma regime, especially in the research labs, while preserving it in manufacturing.
- CAPITAL SPENDING
  - Worried about underinvestment, plowed $1.5 billion into 18 new plants or major expansions.
- RESEARCH PRIORITIES
  - Boosted R&D budget. Refocused on “core” research and away from ancillary businesses like pharma.
- CULTURE
  - Reignited the innovation machine by encouraging risk-tasking.
- APPEARANCE
  - From the research lab. Bespectacled and unassuming, has an informal “call me George” demeanor.
Managing Innovation & Productivity
Figure 5: Innovation Process in Organizations (Amar & Juneja, 2007)

Outcomes of Value to Organization

- Services
- Products
- Processes

Innovation

Invention

Creativity

A1: Knowledge
A2: Culture
A3: Social Capital

Drivers D1, D2, D3, D4, D5
Figure 6: Knowledge to Innovation Process
D 1: Personal Growth Driver: Personal growth refers to the organization allowing workers to gain some degree of personal intellectual satisfaction from completing the work (Nohria, Joyce & Roberson, 2003).

D 2: Operational Autonomy Driver: Operational autonomy involves the degree to which managers allow the workers to make their job related decisions and complete their tasks on their own (Kubo & Saka, 2002).

D 3: Task Significance and Achievement Driver: Non-financial rewards promote a sense of satisfaction from producing high quality work (Carter & Scarbrough, 2001) and to assure that the knowledge worker derives satisfaction from the work.
The Drivers of Innovation

- **D 4: Monetary Rewards Driver:** To serve as an effective driver of knowledge workers, monetary rewards should be proportional to the success of the corporation (Amar, 2004; Nohria, Joyce, & Roberson, 2003).

- **D 5: Socialization Driver:** Individual knowledge workers and the specialist teams they create have immense knowledge embedded in them; nevertheless, it can only become a source of value to the organization if it is shared (Nonaka & Takeuchi, 1995).
Propositions:
The Economics

- Market monopolies/leader oligopoly, they become less IO (successful products and/or services)
- Greater emphasis on profit and cost cutting (For gaining competitive advantage or for responding to investor expectations.)
- Trailing Intangibility Index (II)
  - R&D Spending/Capital Spending Ratio (II) starts to trail off
### Buoyant versus Symbiotic Leadership

**The Case of Two CEOs of Hewlett-Packard—Carleton S. “Carly” Fiorina and Mark V. Hurd**  
*(Compiled by Professor A. D. Amar from the reports appearing in the popular press.)*

<table>
<thead>
<tr>
<th>FLAMBOYANT</th>
<th>SYMBIOTIC</th>
</tr>
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<tbody>
<tr>
<td><strong>Visibility</strong></td>
<td><strong>Visibility</strong></td>
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<tr>
<td>(i) Fiorina had her portrait hung in HP lobby between its two founders, William R. Hewlett and David Packard</td>
<td>(i) Hurd refused to have his picture put up.</td>
</tr>
<tr>
<td>(ii) Fiorina traveled in an entourage</td>
<td>(ii) Hurd came to HP Iowa plant driving in a rented Hertz car</td>
</tr>
<tr>
<td>(iii) Emerged as one most recognized celebrity CEO</td>
<td></td>
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<tr>
<td><strong>Communication</strong></td>
<td><strong>Communication</strong></td>
</tr>
<tr>
<td>(i) Fiorina’s public presentations were choreographed like rock stars</td>
<td>(i) Hurd avoided press and mass media</td>
</tr>
<tr>
<td>(ii) Fiorina’s credo was “management is a performance”</td>
<td>(ii) Hurd made standing-room-only talk in the cafeteria using flip charts</td>
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<tr>
<td><strong>Management Style</strong></td>
<td><strong>Management Style</strong></td>
</tr>
<tr>
<td>“Look-at-me” management style</td>
<td>Cranked up earnings through smart cost-cutting moves</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td><strong>Organization</strong></td>
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<tr>
<td>Fiorina resisted sharing operating duties</td>
<td>Split time equally among employees, customers, and investors</td>
</tr>
<tr>
<td>Fiorina will take credit for HP’s comeback even after she was fired from HP.</td>
<td></td>
</tr>
<tr>
<td><strong>Reinforcement</strong></td>
<td><strong>Reinforcement</strong></td>
</tr>
<tr>
<td>Subordinates walked out with her like “bad children going to be punished”</td>
<td>Hurd is likely to challenge than chastise</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td><strong>Outcomes</strong></td>
</tr>
<tr>
<td>(i) Company remained in doldrums.</td>
<td>(i) Took market share in printers and PCs.</td>
</tr>
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<td>(ii) Stock was in a malaise.</td>
<td>(ii) Boosted operating margins from 4% to 6.9%</td>
</tr>
<tr>
<td>(iii) Boardroom in-fights were common; got pushed into courts for external intervention.</td>
<td></td>
</tr>
<tr>
<td><strong>Subordinate Response</strong></td>
<td><strong>Subordinate Response</strong></td>
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<tr>
<td>Colleagues and workers did their jobs.</td>
<td>Colleagues and workers really wanted him to succeed.</td>
</tr>
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References


References

Questions?

Thanks!