Antecedents of Innovation Success at the Firm Level
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- Deutsche Telekom
- Osko-Bock
- WELLA
- DIEHL
Companies with an excellent innovation management outperform other companies on both success dimensions simultaneously.

The market finally decides about successful innovation.

Profitability of Innovations
(e.g. ROI from innovations)

Growth with Innovations
(e.g. sales impact of innovations)

Success factors can be influenced by management.
Core Antecedents of Innovation Success at the Firm Level:

(1) Corporate Culture
(2) Champions of Innovations
(3) Relative Product Advantage
(4) Proficiency of Pre-Development Activities
(5) Customer and Market Orientation
(6) Multidisciplinary Project Teams
(7) Integrated Intellectual Property Management
Corporate Culture and Innovation: The Case of 3M

“Researchers are allowed to devote 15 percent of their time to projects that pique their interest, even those on which management has pulled the plug... If you want to encourage innovation, you have to close your eyes when people are so excited about a project that they refuse to stop”, he said, noting that Thinsulate, a big-selling clothing insulation material, resulted from a project he had officially scuttled (Deutsch, 1999: 16.).
Types of Corporate Culture

Organic Processes
(flexibility, spontaneity)

Adhocracy

Dominant Attributes: Entrepreneurship, creativity, adaptability
Leader Style: Entrepreneur, innovator, risk taker
Bonding: Entrepreneurship, flexibility, risk
Strategic Emphases: Towards Innovation, growth, new resources

Internal Maintenance
(smoothing activities, integration)

Clan

Dominant Attributes: Cohesiveness, participation, teamwork, sense of family
Leader Style: Mentor, facilitator, parent-figure
Bonding: Loyalty, tradition, interpersonal cohesion
Strategic Emphases: Towards developing human resources, commitment, morale

Hierarchy

Dominant Attributes: Order, rules and regulations, uniformity
Leader Style: Coordinator, administrator
Bonding: Rules, policies and procedures
Strategic Emphases: Towards stability, predictability, smooth operations

Mechanistic Processes
(control, order, stability)

External Positioning
(competition, differentiation)

Market

Dominant Attributes: Competitiveness, goal achievement
Leader Style: Decisive, achievement-oriented
Bonding: Goal orientation, production, competition
Strategic Emphases: Towards competitive advantage and market superiority

Source: Cameron/Freeman (1991)
Example: Corporate Culture at XYZ

- Clan: MEAN = 62.16, STDEV = 27.72
- Adhocracy: MEAN = 72.65, STDEV = 40.39
- Market: MEAN = 110.20, STDEV = 46.16
- Hierarchy: MEAN = 155.00, STDEV = 57.20

ḳ Market and Hierarchy orientated
The Impact of Corporate Culture on Financial Innovation Performance

Contingency Factor (Technological Turbulence)

Adhocracy Culture

Hierarchy Culture

No effect

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Financial Innovation Performance

Source: Ernst (2003)
The Role of Leadership in Innovation Management

- Leadership determines the “mindset” for innovation (culture)

- Culture is a core enabler of effective innovation management (secures top management support; reduces interfaces; encourages cross-functional teamwork; encourages “intrapreneurship” etc.)

Assessing and Changing Corporate Culture if necessary (The start of any successful Innovation Management)
Agenda

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The Basic Idea of Champions: Overcoming Barriers to Innovations

“Given the underground resistance to change described earlier, the new idea either finds a champion or dies (Schon, 1963: p. 84).”

- The higher the degree of innovativeness, the higher the degree of resistance.
- Innovation Management always involves “overcoming resistance” (e.g. by champions).
## Different Sources of Power and Championing Roles in Innovation Management

<table>
<thead>
<tr>
<th>Sources of Power</th>
<th>Championing Roles in Innovation Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. expertise, project-specific knowledge</td>
<td>knowledge promoter; technical innovator; technologist; inventor</td>
</tr>
<tr>
<td>2. hierarchical potential</td>
<td>power promoter, chief executive, executive champion</td>
</tr>
<tr>
<td>3. Access to material, resources</td>
<td>business innovator, investor, entrepreneur, sponsor</td>
</tr>
<tr>
<td>4. organizational knowledge and communication intensity</td>
<td>process promoter, product champion, project champion</td>
</tr>
<tr>
<td>5. network knowledge and interaction skills</td>
<td>relationship promoter</td>
</tr>
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The Importance of Executive Champions

- Executive champions have the strongest impact on innovation projects because of their strong hierarchical power base (Chakrabarti and Hauschildt, 1989). They can overcome resistance, they can secure the required resources and they can impact termination decisions (Markham, 2000).

- Executive champions associate more often with highly innovative projects (Day, 1994), which can have, either way, a strong positive or negative impact on organizational performance.

- Prominent examples (Day, 1994):
  - Watson (former CEO of IBM) championed the IBM 360
  - Morita (former CEO of Sony) championed the Walkman
  - Tonaka (former managing director of Canon) championed the move into the plain-paper copier market
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Relative Product Advantage:

The relative product advantage (value proposition) of the innovation over competing products as perceived by the customer is the most important success factor.
Antecedents of Innovation Success at the Firm Level

Relative Product Advantage and Innovation Success

<table>
<thead>
<tr>
<th>Success Rate</th>
<th>Projects with minimal benefit</th>
<th>Projects with moderate benefit</th>
<th>Projects with great benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>18,4% successful</td>
<td>58% successful</td>
<td>98% successful</td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>Projects with minimal benefit</td>
<td>Market share: 32,4%</td>
<td>Market share: 53,5%</td>
</tr>
<tr>
<td>Assessed Rentability*</td>
<td>2,58  5,77  8,42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Met sales expectations**</td>
<td>2,19  4,73  6,96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Met revenue expectations**</td>
<td>2,21  4,63  7,02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Kleinschmidt/Geschka/Cooper (1996)
Relative Product Advantage – Implications for Innovation Management

The relative product advantage (value proposition) of the innovation over competing products as perceived by the customer is the most important success factor. This has the following implications:

- “Me-too” is an unsuccessful business model
- The innovator can be successfully challenged (fast second)
- Identification of the relative product advantage as early as possible in the NPD process
- Determining the relative product advantage requires customer/market feedback
- A superior technology does **not** automatically translate into a successful product (often an engineer’s or scientist’s view)
- Most important aspect of any business plan!
Antecedents of Innovation Success at the Firm Level

Technology vs Innovation – View from the CEOs of Leading High Tech Firms

Source: “View from the Top”, The Economic Times Bangalore, August 17th, 2003
Technology vs Innovation – View from the CEOs of Leading High Tech Firms

Are corporate buyers skeptical about tech these days? It depends on the companies—whether they were oversold. We had a more conservative approach about the Internet. We never told the clients they had to rip out the old stuff. We did not close $100 million deals on what is now shellware. Some corporations aren’t happy with other tech companies. To some extent, these companies have spoiled the market.

How do you overcome this? There is less confidence, less trust. It’s very important for us to behave like a mature industry. So far, we have not. It was not “client first,” it was “us first.” We have to improve customer relations, make the business case, and not promise anymore that we have the Holy Grail. It’s hard work. It’s rebuilding the relationship. It’s what we do.

Are you adapting your software for new technologies, such as radio-equipped tags for inventory? People are just starting to work with it. We’re codeveloping with Procter & Gamble. Ultimately, probably in a year, we’ll sell it as a packaged application.

Source: “View from the Top”, The Economic Times Bangalore, August 17th, 2003
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4. **Proficiency of Pre-Development Activities**
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The quality of planning before the beginning of the actual development stage (idea generation and concept development) is one of the most important success factors of innovations.

The selection of the most promising projects before entering the development phase is especially important (portfolio management: identify the most promising projects as early as possible).
Proficiency of Pre-Development Activities – Implications for Innovation Management

The most important pre-development activities include:

- Initial, rough evaluation of ideas
- Execution of technical and market-oriented feasibility studies
- Thorough commercial evaluation of the innovation project
- Clear description of the product concept, the target market and the relative product advantage of the innovation for the customer

Implications:

- Take time to complete these activities professionally (higher speed to market!)
- Integrate customers/market requirements early in the process
- Spend sufficient resources on these activities (bring in investors early)
- Establish a core multifunctional team as early as possible
- Terminate the project if objectives can’t be reached (lower sunk costs; new opportunity)
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The Impact of Customer Integration on the Success of Innovations

Empirical studies show that the advantage of customer integration increases

- when it is used in the early and the later phases of the innovation process and

- when the customers possess specific characteristics such as those of a “Lead User” and have a high economic attractiveness and

- when a high degree of informal and formal communication between innovation team and „area of usage“ on the customer side

Customer integration must always be aligned with market orientation to avoid niche solutions.
Customer and Market Orientation – Implications for Innovation Management

- Early and continuous integration of customers reduces the market risk
- Integrate customers early (provide ideas and sometimes even solutions)
- Bring in qualified people early who understand the market (and have relationships to important customers) and have good marketing/sales skills
- Find innovative firms/customers (trendsetters) for totally new products in emerging markets (only they perceive the need)
- Reference customers are important signals to the market (also VCs)
- Commitment of significant customers reduces internal resistance
- Align process with customer (foster communication; use tools: e.g. QFD)
- Avoid niche solutions by conducting good market research (e.g. Conjoint) and up-date market information along the entire NPD process (termination)
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Multidisciplinary Project Teams – Implications for Innovation Management

Dedicated and powerful multidisciplinary project teams are an important driver of innovation success (strong project management). The project leader has to have specific skills. Team work quality has an important impact on the success of innovations, especially the higher the degree of innovativeness.

Implications:

- Complementary skills have to come together (team start-ups are more successful than individual ventures; important core functional areas include R&D, marketing/sales, controlling, finance; add further skills if required)
- Success factors of multidisciplinary teams should be taken into account
- Team and team leader need top management support
- Team quality can be measured and used as a controlling tool
- Team-based rewards are a strong motivator (based on outcome)
- The project leader should not be selected only because of his or her technological know how
Characteristics of successful Project Leaders – always from the R&D department?

1. Co-operative leadership
2. Problem-solving ability
3. Technological know-how
4. Experience
5. Ability for interaction
6. Ability to organize
7. Social competence
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Successful Differentiation through Integrated R&D, Patenting and Branding

R&D focuses on the USP with experienced customer value which is protected by patents and which is in the focus of the more efficient branding campaign ("unique branded products").

- **Unique**
  - Unique selling proposition (USP)
  - Experienced customer/user value
  - Bases on core competences
  - Protected by patents and know-how

- **Branded**
  - Market communication
  - Positioning
  - Recall
  - Orientation towards target segments

Source: Kilian Hochrein; W.L. Gore & Ass. (2002)
How to Achieve Successful Integration of Innovation and IP Management

- Integration of patent professionals in the NPD team (e.g. DC)
- Integration of patent-related criteria into the milestone planning during the NPD process (e.g. 3M)
- Early integration of relevant functions (R&D, Marketing, Production and IP; e.g. Gore; 3M ESPE)
- Integrative protection strategies over all IPs (esp. trade marks; e.g. Gore; 3M ESPE)
- IP awareness at multiple levels of the organization
- Awards and incentives
- Job rotation
Companies with Integrated Innovation and IP Management have High Quality (Economically Valuable Patents) Patent Portfolios

Positive Impact on firm performance

Patent Quality

High Potentials

Innovation Leaders

Losers

Activists

Patents per R&D Exp.
Thank you very much for your attention!