FEI – SPI (Survey, Probe and Intervention of Effective Practices)

FEI - SPI Team
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January 19, 2004 status
Agenda

- Project Goals
- Background
- Methodology
- Time Line
- Funding
- Next Steps
FEI SPI Project Goals

- To discover and optimize effective practices in the FEI using the NCD model as the construct

- Develop a assessment tool and metrics companies can use to evaluate the FEI
  - Similar to the ProBE questionnaire based audit developed by Cooper et. al. for the NPD portion
ProBE

- Compares an individual company’s approach and results to the average business and against the top 20 percent performers.

- Up to 16 key people of an organization evaluate the company’s NPD approach and fill out the questionnaire.

- Over 100 characteristics of the company’s product program and its performance are measured.

- Highlights the strength of the organization, pinpoints weaknesses, identifies areas of disagreements amongst the company evaluators.

- Base to develop better approaches for the future.

www.prod-dev.com
Background

Results of these studies have lead to an understanding of best practices in NPD

- Numerous Surveys on Best Practices in the NPD portion have been done (the classics!)

Background

Results of the studies proposed herein will lead to a fundamental understanding of the most effective practices used in the FEI.

- **NO** similar studies have been done in the FEI.
Background

Industry Focus

❖ Focus on Chemical, Food and Beverage, Medical Devices and Petroleum Industry

❖ Why?
  ▣ Cannot compare FEI across all segments

Total Industries in IRI (185)
Agenda

- Project Goals
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Methodology

I. Additional FEI Case Studies
II. Survey Development
III. Determining Current Practices (Large Sample Survey)
IV. Improving on Current Practices
V. Assessment Tool Development
VI. Implement practices and measure outcomes at participating companies
Methodology

1. Additional FEI Case Studies

- **Objective:**
  - Understand key methodologies, practices and culture at 4-5 companies who were not part of the NCD effort

- **Purpose**
  - To be as inclusive as possible
Methodology

II. Survey Development

- Develop validated survey which includes outcome measures for the FEI and each of the elements
- Validate survey and outcomes with 10 IRI companies and 10 academics

Critical to identify outcome measures which can measure the effectiveness of the FEI and each of the elements

The survey effort will be of little value without effective outcome measures for the FEI
Methodology

III. Determining Current Practices
- Large Sample Survey

sız Administer Survey to at least 100 companies in the targeted segments
  ý To be filled out by at least 5 people in SBU including CEO, CTO and 3 program directors
  Need to have multiple people from each SBU filling out survey

ział Target a return greater than 80%
ız Analyze the results
ız Identify best practice companies
  ýTop 20% companies
Methodology

IV. Improving on Current Practices

- **Activity:**
  - Visit 10-12 “best” practice companies identified in the large sample survey and matched pair in the 50% octal

- **Objective:**
  - Go beyond the large sample survey to obtain concrete and specific examples of activities at “best” performers

- **Outcome:**
  - Understanding of new and optimum methodologies to be used in the FEI.

This effort will allow us to go beyond the survey and better understand the actual practices and methodologies which have resulted in success
Methodology

V. Assessment Tool Development

- **Assessment Tool**
  - A questionnaire of FEI activities, practices, methodology and tools and problems determined from “20%” best performers

- **Objective of Tool**
  - Highlight companies strengths and weaknesses in the FEI
Methodology

VI. Implement practices and measure outcomes at participating companies

❖ **Objective**
   - Assess the impact of using the assessment tool at participating companies

❖ **Evaluate Results**
   - Evaluate the results and monitor how the companies correct the weakness and areas of deficiencies

❖ **Monitor**
   - Reapply the assessment tool and FEI outcome measures on a yearly basis
Agenda

- Project Goals
- Background
- Methodology
  + Time Line
  + Funding
  + Next Steps
Time Line

I. Add Case Studies
II. Survey Development
III. Survey Practices
IV. Case Studies
V. Tool Develop
VI. Implement Practices

2003 2004 2005 2006

Will be trying to compress schedule
Funding

- **Supported as one of the activities of Consortium for Corporate Entrepreneurship (www.ceconsortium.org)**
  - Ethicon and ExxonMobil

- **NSF Grant**
  - Approved $295,080 3 year grant
  - Industry Partners:
    - Cabot, Ethicon, ExxonMobil, Rich Products and LORD Corporation each committed $15K ($5K/year) if grant gets funded
  - NSF recommended the addition of an “Organizational” Theorist to the team
Organizational Structure

Outcome measures

- **Overall FEI Outcomes** (Bramante, Hartz and Purden)
- **Unit of Analysis and Company Demographics** (Koen)
- **Influencing Factors** (Koen)
- **Engine** (Pruden and Hartz)
  - Senior Management, Strategy, Culture and Champions
- **Opportunity Identification and Analysis** (Incorvia and Tollett)
- **Idea Generation, Enrichment and Selection** (Kugler and Stiratt)
- **Concept Definition and Selection** (Boyce and Seibert)
  - Risk Management, Technology Stage Gate

Using NCD model to help frame the hypotheses
Aug 12 – FEI SPI Meeting

Meeting Accomplishments
- Began working as a team
  - High energy group with desire to do the project on a shorter time frame
- Better clarified goals and deliverables
- Struggled with length of eventual survey and what we wished to obtain
- Gained consensus on 1,000 ft view
  - Need to measure FEI outcomes, NPD outcomes and relate to level of innovativeness
  - Accept that there is a lag between FEI and NPD
- Agreed to move forward in all sections and have 1st draft of survey for Engine and NPD outcomes

Meeting Attendees: Scott Boyce* (Rohm and Haas), Griff Bludworth (Crompton), Cindi Hartz* (Dow Corning), Linda Harley (Stevens), Michael Incorvia* (International Flavors & Fragrances), Elko Kleinschmidt* (McMaster University), Kirk Limbach (BOC), Peter Koen* (Stevens), Drew Kugler* (WelchAllyn), Jessica Maier (IRI), Ann Mooney* (Stevens), Lorrette Pruden* (Inventive Strategies), Jeff Stirrat* (Ethicon) and Brenda L. Tollett* (The Valvoline Company)  “*” indicates person is on FEI-SPI Team
and a Revised NCD Model
Oct 28 – 29 Meeting

Meeting Accomplishments

- FEI Outcome Measures Developed
- Hypotheses Rated
- Human Factors segment for NCD model proposed, but consensus not obtained
- IRI value proposition developed subsequent to meeting

Meeting Attendees: Christina Bramante* (Cabot), Scott Boyce* (Rohm and Haas), Cindi Hartz* (Dow Corning), Linda Harley (Stevens), Michael Incorvia* (International Flavors & Fragrances), Elko Kleinschmidt* (McMaster University), Peter Koen* (Stevens), Drew Kugler* (WelchAllyn), Lorrette Pruden* (Inventive Strategies), Becky Seibert (Crompton)*, Jeff Stirrat* (Ethicon) and Brenda L. Tollett* (The Valvoline Company)  “*” indicates person is on FEI-SPI Team
Oct 28 – 29 Meeting

FEI Outcome Measures

- Competitive Advantage
- Portfolio Mix
- Financial
- Efficiency/Effectiveness
- Opportunities

Issue: Actual Sales $ or % of funding at the SBU level will not be attainable