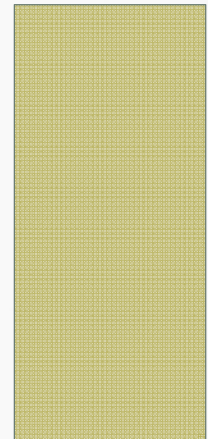


INNOVATION BASICS – IT'S NOT ELEMENTARY

SPQA Forum
Sep 15 2014

JANE KEATHLEY, MS, PMP
KEATHLEY AND COMPANY, LLC



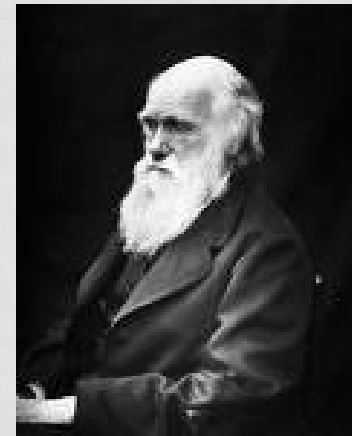
WHAT TO EXPECT

- Topics to cover:
 - What is Innovation?
 - Innovation and Leadership
 - Innovation and Strategy
 - Innovation Systems and Tools
- Group exercises
- Thoughtful discussions
- New friends and colleagues
- Copy of *'The Executive Guide to Innovation: Turning Good Ideas into Great Results'* Keathley et al.; ASQ Quality Press 2014

WE NEED INNOVATION BECAUSE...

The World is Changing

- In the marketplace, Asia is growing
- Global population is growing (7 billion); demographics changing
- Technology is becoming digital
- The environment is changing



It is not the strongest of the species that survive, nor the most intelligent, butthe one most responsive to change.

- Charles Darwin

INNOVATION IMPERATIVE

- Study after study show that successful organizations are those that can innovate
 - Surveys of senior leaders indicate that innovation is high on the list things that 'keep them up at night'
- *The enterprise that does not innovate inevitably ages and declines.*

• *Peter Drucker*

The Conference Board CEO Challenge® 2012

Global Innovation and human capital top challenges for 2012

RANK	IMPORTANCE-ADJUSTED TOP THREE CHALLENGES	SCORE
1	Innovation	1.00
2	Human capital	0.90
3	Global political/ economic risk	0.83
4	Government regulation	0.72
5	Global expansion	0.69



THE CONFERENCE BOARD



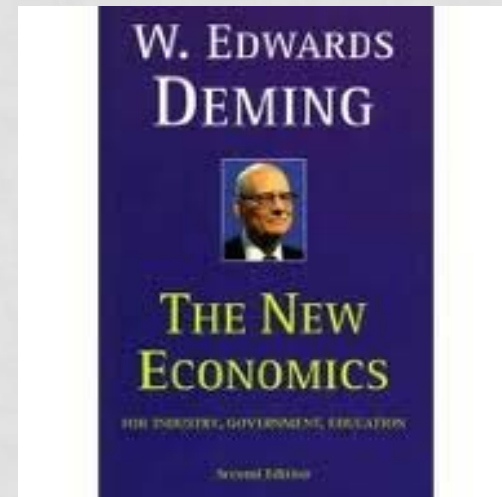
Compliments of Bill Woodall, Virginia Tech

BUSINESS EXPERTS SAY:

- “The challenges of a decade ago were to restructure, lower cost, and raise quality. Today, continued operational improvement is a given.”
 - Michael E. Porter, Harvard
 - ... advantage must come from the ability to create and then commercialize new products and processes, shifting the technology frontier as fast as their rivals can catch up.”
 - Scott Stern, Northwestern
-

W. E. DEMING ON INNOVATION

“The moral of the story is that it is necessary to innovate, to predict needs of the customer, give him more. He that innovates and is lucky will take the market.”



CREATIVE DESTRUCTION

Innovative new products and processes can destroy existing products and companies.

Examples: Buggy whips, typewriters, floppy disks, cassette tapes, photographic film-based products, mechanical watches, record shops, video stores, bookstores, ...

TYPES OF INNOVATION

- Product
- Process
 - Services
 - Operations
- Business model
 - Often has the biggest impact
 - Partnerships

WHAT IS INNOVATION?

- Exercise – divide into groups
- Discuss the 4 definitions provided
- Select the one you think is best
- Report out: your group's selection and why

WHAT IS INNOVATION...

Innovation is the successful conversion of *new* concepts and knowledge into products and processes that deliver *new* customer value in the marketplace

*Innovation and Value Creation Technical Committee
(now IIG), 2009*

INNOVATION IS....

- Innovation is the introduction of something new; a new idea, method, or device.
- Merriam Webster

OR IS IT....?

- 'Innovation is change that creates a new dimension of performance.'
- Peter Drucker

OR MAYBE....?

- “The introduction of transformational change into inherently stable systems from which a user derives meaningful value.”
 - Andrew Marshall

IT'S NOT JUST CREATIVITY

“Creativity does not guarantee actual innovation.” – Peter Drucker

“The trouble with many good ideas is that people have the notion that their work is done, that it is up to somebody else to make it happen.” – Ted Levitt, Harvard Business School

ENSURING SUCCESSFUL INNOVATION

- Commitment from leadership
- Develop organizational culture
- Define innovation process and discipline
- Provide sufficient resources
- Manage it



LEADERSHIP

- Organizational behaviors
- Culture of innovation and intelligent risk
- Team building and performance
- Achievement



LEADERSHIP TRAITS FOR INNOVATION

- Exercise 2
- With your group, discuss the traits and behaviors leaders must exhibit to be successful in leading an innovative organization
- List the top 5 from your group and write on flip chart
- Discuss with room

SYSTEMATIC VS. INNOVATIVE

- Prevailing attitude --these are incompatible and systems defeat innovations
- Experience shows:
 - Not only compatible, but...
 - Systematic approach leads to more effective innovation

BENEFITS OF SYSTEMS APPROACH

A systematic approach:

- Sets expectations for innovation
- Provides a framework
- Establishes and aligns priorities
- Focuses resources

INTEGRATION INTO SYSTEM



- Blended or stand-alone?
- Review incorporation into the organization – is it working?

INNOVATION MANAGEMENT SYSTEM

- Strategic alignment
- Innovation Portfolio
- Decision making policies

STRATEGIC ALIGNMENT

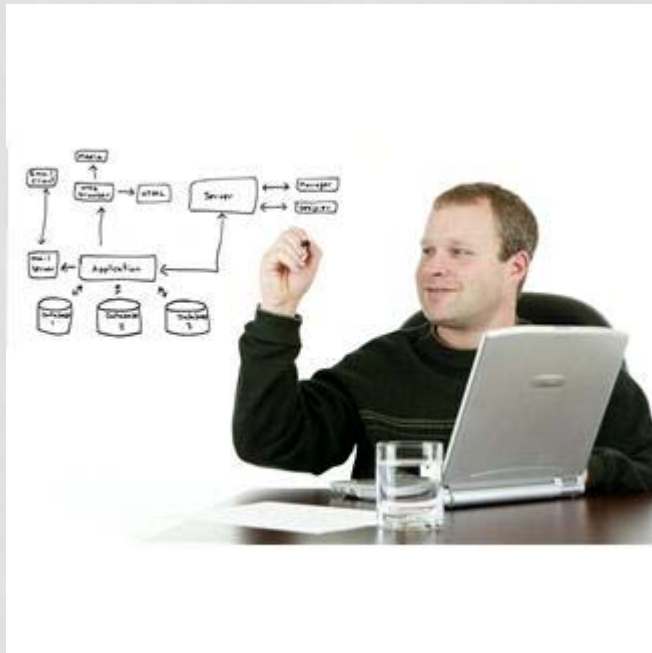
- Integration with strategic planning cycle
- Align innovations and new ventures with strategic goals



Highly innovative companies do not see innovation as an end, but rather as a means to achieving strategic goals.

-Les McKeown

STRATEGY DEVELOPMENT/ DEPLOYMENT



- Identify opportunities / prioritization
- Conduct market and organizational data analyses
- Develop innovative solutions
- Deploy strategic plans

EXERCISE 3: STRATEGY AND INNOVATION

- Read case study
- Discuss with your group the strategy(ies) that led to the organization's success and how it was innovative
- Report out to room

MANAGEMENT ELEMENTS

- Management principles
- Communication skills
- Project management
- Systems management models
- Manage innovation initiatives and associated risks and return



MANAGEMENT EMPHASIS

- Quality focus is quality, efficiency, and cost
- Innovation focus is on increased customer value, efficiency, and speed

TOOLS

- Classic management and quality tools
- Planning tools
- Process management tools
- Creativity tools
- Cost of Quality tools
- Measurements and analyses
- Newer innovation tools



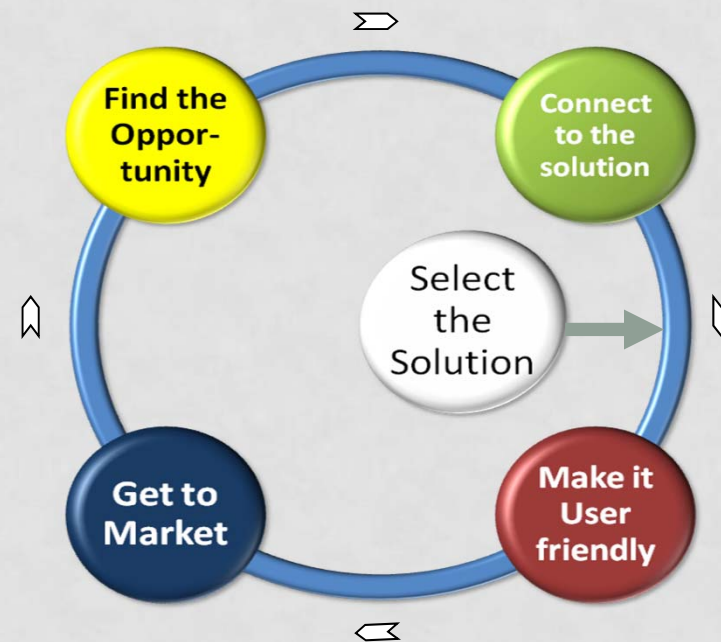
INNOVATION MANAGEMENT METHODOLOGIES

Innovation Generation; Merrill, 2008	Innovation, The Five Disciplines...; Carlson and Wilmot, 2006	Innovation: The New Face of Quality; Gupta, 2009	Service Innovation, Designing Innovative Experiences; Goncalves, 2009
Find the opportunity	Need	Target opportunity	Visioning
Connect to the solution	Approach	Explore idea	Discovering
Select the solution		Develop alternatives	Analyzing
Make it user friendly	Benefits/cost	Optimization	Synthesizing
Execute	Competition	Commercialize	Realizing

INNOVATION PROCESS*

Creating
Knowledge

Executing the
Solution



* Peter Merrill; Innovation Generation, Quality Press, 2008

VALUE FACTOR ANALYSIS

$$\text{Value Factor} = \frac{\text{Customer Benefits}}{\text{Customer Costs}}$$

- Benefits (product quality and convenience) = importance * satisfaction
- Costs = importance * expense
- Provides comparative measure of what is important to the customer

THE VALUE PROPOSITION; NABC METHOD

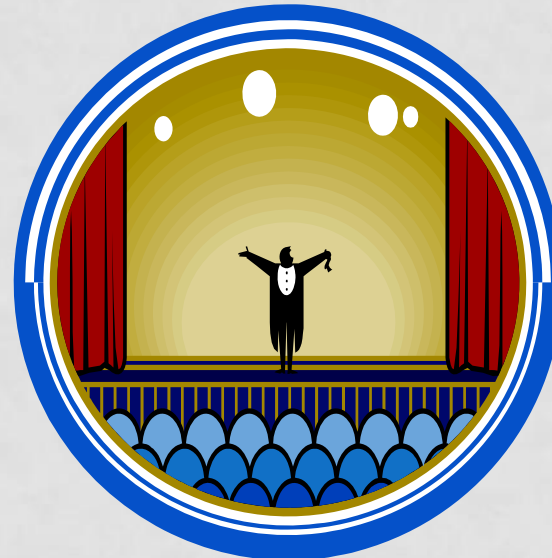
- Need: *What is the customer's unmet need?*
- Approach: *What is your idea?*
- Benefits per Costs: *How will it help the customers? What will it cost?*
- Competition: *What's the risk of not doing it?*

Write it quickly – 3 minutes

Recite it quickly – 30 seconds

SERVICE BLUEPRINTING

- Service innovation tool
- Builds on customer interactions
- Establishes links between on-stage, backstage, and support processes



CREATIVITY TOOLS

- Mind mapping
- TRIZ
- Brainstorming (*see MindTools.com*)
 - SCAMPER
 - Starbursting
 - Round robin
 - Rolestorming
 - Etc.

A BIT ABOUT BRAINSTORMING

- History
- Pros and cons

SCAMPER

- Generate ideas for improving existing and creating new products/processes/services
 - Series of key words designed to make you think about your problem statement in different ways
-

SCAMPER QUESTIONS

Ask questions about your problem statement/ current situation, using these key words:

- Substitute
- Combine
- Adapt
- Modify
- Put to another use
- Eliminate
- Reverse

EXERCISE 4: SCAMPER

- Break into groups
 - Identify team facilitator
 - Use SCAMPER method to identify solutions (at least three) for the given problem statement
 - Select best option to move forward and rationale; summarize on flip chart
 - Discuss use of the tool and how it led to solution ideas – were they innovative?
 - Report back to room
-

INNOVATION- NOW MORE THAN EVER

- Organizational innovation is a strategic imperative
- Requires leadership, strategy, idea generation, structured processes, and skilled workers
- Takes organization forward, ahead of competition

- *The Innovation Imperative in Manufacturing,*
Boston Consulting Group

THANK YOU

*"The Stone Age
didn't end because
they ran out of
stones"*

-Sheikh Yamani

