A NEW MODEL OF HUMAN NEEDS FOR MOTIVATING INNOVATION

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OUTLINE

❖ Innovation: A Simple Definition, a Dynamic Process, and Major Insights
❖ Major Participants: An Investment Perspective
❖ Goal of Innovation Management
❖ Major Elements of Innovation Management: Creativity, Marketing, and Organization
❖ Heart of Innovation Management: A New Perspective on Human Needs & Motivations
❖ A Key Question
Innovation: Idea Implemented with Impact.
Implementation

Idea

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INNOVATION

Impact

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\begin{array}{c}
1 \rightarrow \infty \\
\end{array}
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- Magnitude
- Duration
THE SIMPLE DEFINITION APPLIES TO A WIDE RANGE OF INNOVATIONS

Examples:

- Technologies: nuclear fission, semiconductor
- Products: light bulb, iPhone
- Services: labor intensive, technology intensive
- Social: social network, micro-lending
- Management practices: standardization, quality control
- Theoretical concepts: evolution, relativity
- Ideological principles: democracy, Marxism
- Philosophical tenets: Confucianism, Buddhism
INSIGHTS FROM THE SIMPLE DEFINITION

❖ Innovation is *not a static idea* but a *dynamic process* involving implementation to produce impact.

❖ We are *ALL Innovators* with differences in *Impact*.

❖ For an innovation to have significant impact, idea is important, but *implementation is critical* as well as *complex and difficult*, because it will involve the collaboration and coordination of many participants in the process over a long period of time, a fact generally *sensed*, but often not fully appreciated.
INNOVATION PROCESS: An Interactive System with Common Key Elements

Generate Creative Idea & Build Core Team

Seek/Provide Initial Support

Expand Innovation and Organization

Assess Impacts and Re-evaluate Needs as Basis for Re-innovation

Formulate and Implement Business Strategies

Manage Operations: Production, Marketing & Sales
The key participants of the innovation process: *Idea Generator, Core Team, Supporter, and Adopter.*

**Diagram:**
- **Idea Generator**
- **Core Team General Staff**
- **Supporter:** Investor/Mentor, Supplier, Regulator
- **Distributor Final Adopter**

Connections:
- Support
- Value
- Intrapreneur with Organizational Support
- Adoption
KEY INSIGHTS FROM THE INNOVATION PROCESS

❖ **Entrepreneurship is innovation** with external support and independent organization formation.

❖ **Research and technology development is another special form of innovation** generally within an existing organization.

❖ All workers in an organization can be **internal entrepreneurs or intrapreneurs** by following the same innovation process.

❖ **Motivating and managing workers to be intrapreneurs by creating an innovative culture** is essential for an organization to be continually innovative and competitive.
A participant in the innovation process makes resource (time, money, effort, etc.) investment decisions based on Perceived Expected Net Values & Risks. Modern Portfolio Theory can be used to identify the optimal innovation.
DIFFERENT VALUE-RISK BALANCES

- Dependent on *individual value and risk preferences*, these optimal innovations can be *different* not only among participants, but also within a participant class.

- For example, the optimal innovation for an *Idea Generator*, who is:
  - an *Entrepreneur*, generally has high value/high risk.
  - an *Intrapreneur*, tends to have medium risk/medium value.
  - a *Non-trepreneur*, largely will have low risk/low value.
INVESTMENT PERSPECTIVE FOR INNOVATION SUPPORTER

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<tr>
<th>Perceived Expected Net Value</th>
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<table>
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- **Basic Research, Defense R&D**
- **Leading Corporations**
- **High-Tech Venture Capitalists**
- **Advanced Economies**
- **Applied Research**
- **Large Corporations**
- **Business/Equity Investors**
- **Newly Industrialized Economies**
- **Incremental Improvements**
- **Small/Medium Businesses, OEMs**
- **Fixed Income Investors**
- **Developing Economies**
INVESTMENT PERSPECTIVE FOR INNOVATION ADOPTER

Perceived Expected Net Value

- Low
- Mid
- High

Perceived Expected Risk

- Low
- Mid
- High

Early Adopter

Late Follower

Non-adopter
Innovation Management: In addition to traditional management functions, like organization, operations, marketing, strategy, etc., it emphasizes effective implementation to achieve impact through:

- Productive creativity for idea generation
- Impactful marketing for participant synergy
- Adaptive organization for meeting evolving challenges

Statistics indicate that the commercialization rate of patented ideas in the U.S. has been less than 0.2%; An important goal of Innovation Management is to increase this rate.

The Goal of Innovation Management is to motivate all participants through their needs to create values from the impact of effective implementation of an idea.
**KEY ELEMENTS OF INNOVATION MANAGEMENT**

- **Productive Creativity:**
  - Focus on the needs as the value bases of all participants
  - Efficient Thinking: Systematic development of tools

- **Impactful Marketing:**
  - Focus on the needs as the value bases of all participants.
  - Communication and persuasion: Channel, message, and delivery.

- **Adaptive Organization:**
  - Focus on the needs of as the value bases of all stakeholders
  - Sustained innovative culture
  - Responsiveness to evolving organizational challenges
Participants in the innovation process all seek to fulfill their individual needs, which is the basis for value creation.

Basic needs can be simply viewed as seeking real or perceived pleasure from stimulation and/or growth, and avoiding real or perceived pain from fear and suffering.

Pleasure is related to the value and pain is related to the risks of making an investment of their limited resources (time, money, effort, etc.) to an innovation.
TRADITIONAL VIEW OF HUMAN NEEDS

- **Physiological**: breathing, food, water, sex, sleep, homeostasis, excretion
- **Safety**: security of body, of employment, of resources, of morality, of the family, of health, of property
- **Love/Belonging**: friendship, family, sexual intimacy
- **Esteem**: self-esteem, confidence, achievement, respect of others, respect by others
- **Self-actualization**: morality, creativity, spontaneity, problem solving, lack of prejudice, acceptance of facts
A NEW PERSPECTIVE OF HUMAN NEEDS

- Meaning
- Stimulation
- Emotional Security
- Physical Security
- Physical Oriented
- Psychological Oriented

High Resource Availability
Low Resource Availability
MODEL OF INDIVIDUAL NEEDS

Psychological
- Harmony
- Ego Protection and Submission
- Affinity and Affection
- Avoidance of Unknown

Growth Oriented
- Meaning
- Spirituality
- Morality
- Empathy and love for others
- Self Esteem

Security Oriented
- Intellectual & creative pursuits
- Entertainment and Recreation
- Tasty food and Sex

Physical
- Comfort and convenience
- Financial Viability
- Physical health and Safety
- Subsistence

Increasing Physical, Intellectual, and mental Resource Availability
APPLICATION TO ORGANIZATIONAL NEEDS

- Social Responsibility
- Financial Survival
- Market Dominance
- Organizational Expansion
- Increasing Financial and Intellectual Resources and Social Consortium
APPLICATION TO SOCIETAL NEEDS

- Social Equity and Harmony
- Economic Stability and Growth
- Political Security and Dominance
- Quality of Life and Innovation

Increasing Financial, Educational and Social Resources
APPLICATION TO INNOVATION ADOPTION
Creative Idea Generation based on Need Segmentation to Motivate Innovation Adoption

Inspired by Arnold Mitchells, Psychographic Segmentation, SRI International 1968
A KEY QUESTION

How to identify the specific needs of different individual participants and develop effective targeted motivating incentives?

One possible answer:
Further relate the needs of individual participants to different personality types.