

# **Developing Innovation and Creativity for Business Advantage**

## **Week – 3 (Part 1) 1) Open and Closed Innovation**

**Amare Desta**

[PhD, MEd, MSc, LCGI, BSc (Hons)]

**Professor of Information & Knowledge Management**

**Senior lecturer & DBA (Doctor of Business Administration) Manager**

# Recap

- Week 1 – Introduction to innovation
- Week 2 – Concepts & techniques of innovation & creativity
- Week 2 – (Part 1) Creativity, Innovation, and Entrepreneurship
- Week 2 – (Part 2) Problem solving and Disruptive + Sustainable Innovations
- This week – we will look “Open & Close Innovation) and Development and Product Life-Cycle Strategies

# CW Expectations:

With reference to the case study “**Developing a new product for the teeth whitening market**” write a report about **5000 words** that addresses:

1. Stockholm Gases’ approach to innovation
2. Taking one member of the management team, explain their role in the teeth whitening project, considering their individual and organisational knowledge and experience
3. Explain one open model and one closed model of innovation and analyse how they could be applied to the teeth whitening project. Explain, with justifications, which model you would recommend should the project go ahead
4. Make a recommendation to the Board about whether Munich Gases should invest £10million in this new product project

# Closed Innovation: Organisations

- Hire bright people
- Put them in special conditions
- Free from market pressures
- Pipeline of ideas to products
- Delivered to passive waiting consumers

# Closed Innovation: Assumptions

- Knowledge is created, codified, sent and received
- Authors of inventions can define their use
- Intellectual property should be protected to create incentives
- Consumption is passive - a yes/no choice
- Innovation comes from within, self-reflective process

# Closed Innovation: Applications

- The R & D Lab: Thomas J Watson, Bell Labs
- Specialist creative activities in companies
- Professional disciplines of architecture and design
- Elite university education
- The Pipeline view of the world

# Closed Innovation: Policy

- R & D subsidies traditionally defined
- Invest in “knowledge base”
- Promote elite university education
- Intellectual property regimes
- Speed up flow down pipeline and ease of transfer into business

# Closed Innovation: Reforms

- Not a fixed model
- Overlapping or simultaneous rather than sequential
- Cross functional teams in organisations
- Use consumer insights earlier in development
- Market oriented R & D

# Closed Innovation: Breaking Down?

- Rise and spread of new sources of ideas and know-how
- Able to connect more easily outside large organisations
- Changing role of consumption and propagation as innovation in use
- Old assumptions and organisational forms of innovation outmoded

# Open Innovation: Generation

- Multiplying sources of ideas
- Technology costs down
- Combining ideas in networks easier
- Skilled labour more mobile, independent
- Outsourcing: distribution of labour leading to distribution of knowledge
- End of knowledge monopolies

# Open Innovation: Propagation

- Consumers are innovators
- Radical innovations: the users work out what innovation is for
- Disruptive innovation: passionate users innovate, producers follow
- New markets and business models start in marginal markets
- Service innovation requires users to rewrite scripts
- Leisure economy: Pro-Am users and serious leisure

# Open Innovation: Advantages

- Increase diversity of parallel experiments: faster learning
- Public platforms, shared development, lower cost
- Better at dealing with technological and market uncertainty
- New roles for users and co-producers: efficient, adaptive, responsible
- Communities build momentum, scale behind products

# Open Innovation: Applications

- Open source communities
- Networked companies/platform innovators
- Clusters and networks in regions
- Cities and countries as open innovation systems
- Not networks, not emergent and self organising
- Structured communities of co-creation: achieve complex tasks

# Open Innovation: Assumptions

- Innovation essential social and dynamic
- Authorship joint, complex and evolutionary
- Knowledge created by interaction
- Innovation as a mass activity

# Communities of Co-Creation: Principles

- Community has to start with something, who provides the kernel/core?
- Communities are structured: membership, decision making.
- Motivation is not selfless but problem solving, learning
- Provide people with easy to use tools, allow decentralised initiative
- Governance to manage conflict, uphold values, set direction

# Communities of Co-Creation: Principles

- Speed of feedback, allows pragmatic trial and error
- Designed to be incomplete, and so to evolve
- Good ideas drive out bad according to clear yardsticks
- Distribution of labour, not division of labour
- Ownership blurred between community and host organisation
- Open leadership by simple rules

# Open Innovation: Limits

- Who gets the kernel going? How is that funded?
- Good for mass incremental innovation but what about big leaps?
- What about people who excluded?
- What if product cannot be modularised?
- What if speed of feedback much slower?

# Open and Closed Innovation: The Future?

- Continued reform of the closed model: networked, platform innovators
- Closed innovators learning from open model
- Wider application of the open model from software
- Hybrid mixes of the open and closed models