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# INTRODUCTION TO INNOVATION

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# WHAT IS INNOVATION?

## A pair of hands, palms up, holds a glowing, spherical cluster of various icons and objects. The icons include a laptop, a smartphone, a bicycle, a lightbulb, a globe, a tree, a hot air balloon, a bar chart, a clock, a camera, a book, a paper airplane, a car, a dog, a cat, a flower, a leaf, a coin, a key, a magnifying glass, a speech bubble, a mail envelope, a calendar, a notepad, a pencil, a ruler, a compass, a protractor, a set square, a pair of scissors, a hammer, a wrench, a screwdriver, a saw, a drill, a paint can, a brush, a palette, a camera, a microphone, a speaker, a television, a radio, a telephone, a fax machine, a printer, a scanner, a copier, a shredder, a stapler, a hole punch, a paperclip, a rubber band, a string, a needle, a thread, a spool, a reel, a film strip, a camera, a microphone, a speaker, a television, a radio, a telephone, a fax machine, a printer, a scanner, a copier, a shredder, a stapler, a hole punch, a paperclip, a rubber band, a string, a needle, a thread, a spool, a reel, a film strip. The background is dark, and the hands are illuminated by the light from the sphere.

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# INNOVATION IS...

- INNOVATION INVOLVES THE **WHOLE PROCESS** FROM OPPORTUNITY IDENTIFICATION, IDEATION OR INVENTION TO DEVELOPMENT, PROTOTYPING, PRODUCTION MARKETING AND SALES, WHILE ENTREPRENEURSHIP ONLY NEEDS TO INVOLVE COMMERCIALIZATION (SCHUMPETER).

# DEFINITIONS OF INNOVATION

- **INNOVATION** IS A NEW WAY OF DOING THINGS, WHICH IS COMMERCIALIZED. THE PROCESS OF INNOVATION CAN NOT BE SEPARATED FROM A FIRM'S STRATEGIC AND COMPETITIVE CONTEXT (PORTER)

- **INNOVATION** IS ADOPTION OF IDEAS THAT ARE NEW TO THE ADOPTING ORGANIZATION

- **INNOVATION** = INVENTION + EXPLOITATION (ETTLIE)

# WHAT IS INNOVATION?

- TODAY IT IS ALSO SAID TO INVOLVE THE **CAPACITY/ABILITY TO ADAPT QUICKLY** BY ADOPTING NEW INNOVATIONS (PRODUCTS, PROCESSES, STRATEGIES, ORGANIZATION, ETC)



- TRADITIONALLY THE FOCUS HAS BEEN ON NEW PRODUCTS OR PROCESSES, BUT RECENTLY NEW **BUSINESS MODELS** HAVE COME INTO FOCUS, I.E. THE WAY A FIRM DELIVERS VALUE AND SECURES PROFITS.

# WHAT IS INNOVATION?

- SCHUMPETER ARGUED THAT INNOVATION COMES ABOUT THROUGH NEW **COMBINATIONS** MADE BY AN ENTREPRENEUR, RESULTING IN
  - A NEW PRODUCT,
  - A NEW PROCESS,
  - OPENING OF NEW MARKET,
  - NEW WAY OF ORGANIZING THE BUSINESS
  - NEW SOURCES OF SUPPLY



# MECHANISMS OF INNOVATION

- NOVELTY IN PRODUCT OR SERVICE (OFFERING SOMETHING NO ONE ELSE DOES)
- NOVELTY IN PROCESS (OFFERING IT IN A NEW WAY)
- COMPLEXITY (OFFER SOMETHING WHICH OTHERS FIND DIFFICULT TO MASTER)
- TIMING (FIRST MOVER ADVANTAGE, FAST FOLLOWER)
- ADD/EXTEND COMPETITIVE FACTORS (E.G. FROM PRICE TO QUALITY OR CHOICE)
- ROBUST DESIGN (CONTRIBUTE A PLATFORM ON WHICH OTHER VARIATIONS CAN BUILD)
- RECONFIGURING THE PARTS (BUILDING MORE EFFECTIVE BUSINESS NETWORKS)
- ...



# DIMENSIONS OF INNOVATION



- EXTENT OF CHANGE (RADICAL—INCREMENTAL)
- MODALITY OF CHANGE (PRODUCT—PROCESS)
- COMPLEXITY OF CHANGE (COMPONENT—ARCHITECTURE)
- MATERIALITY OF CHANGE (PHYSICAL—INTANGIBLE)
- CAPABILITIES AND CHANGE (ENHANCES OR DESTROYS MARKET/TECHNOLOGICAL CAPABILITIES)
- RELATEDNESS OF CHANGE (REPLACES A FIRM'S EXISTING PRODUCT OR EXTENDS IT)
- APPROPRIABILITY/IMITABILITY (DIFFICULT OR HARD TO HANG ON TO)
- CYCLE OF INNOVATION (TIME BETWEEN DISCONTINUITIES)

# DRIVERS OF INNOVATION?

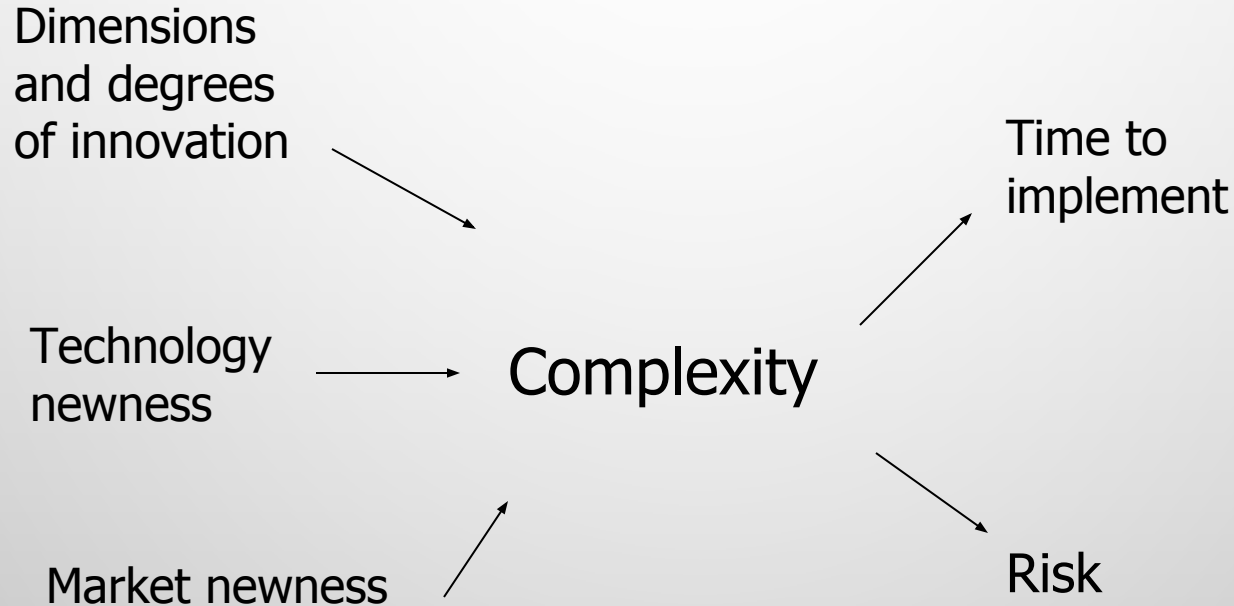


# DRIVERS



- FINANCIAL PRESSURES TO REDUCE COSTS, INCREASE EFFICIENCY, DO MORE WITH LESS, ETC
- INCREASED COMPETITION
- SHORTER PRODUCT LIFE CYCLES
- VALUE MIGRATION
- STRICTER REGULATION
- INDUSTRY AND COMMUNITY NEEDS FOR SUSTAINABLE DEVELOPMENT
- INCREASED DEMAND FOR ACCOUNTABILITY
- DEMOGRAPHIC, SOCIAL AND MARKET CHANGES
- RISING CUSTOMER EXPECTATIONS REGARDING SERVICE AND QUALITY
- CHANGING ECONOMY
- GREATER AVAILABILITY OF POTENTIALLY USEFUL TECHNOLOGIES COUPLED WITH A NEED TO EXCEED THE COMPETITION IN THESE TECHNOLOGIES

# ASSESSING INNOVATION COMPLEXITY





# EXAMPLES OF ANALYSIS

Imitability	High	No profits	Short-term profits
	Low	Low profits	Long-term profits
		Low	High

Core or  
relatedness to  
existing business  
and competences

# CLASSICAL MODELS OF INNOVATION

- *SCIENCE PUSH* APPROACHES SUGGEST THAT INNOVATION PROCEEDS LINEARLY:

SCIENTIFIC DISCOVERY □ INVENTION □ MANUFACTURING □  
MARKETING

- *DEMAND PULL* APPROACHES ARGUED THAT INNOVATION ORIGINATES WITH UNMET CUSTOMER NEED:

CUSTOMER SUGGESTIONS □ INVENTION □  
MANUFACTURING



# PRACTICE

# DISCUSSION

**The Role of Innovation in our country development.**

**The ways of increasing/enhancing Innovation.**



- To get started the discussion on the topic, you will first need to define a problem that can be solved. By carefully and accurately defining this problem, you should be able to generate more-relevant ideas during the discussion.
- Much of the success of this process is going to come down to how well you define your problem, so take as much time as necessary on that step before getting started.





**THANK YOU FOR YOUR ATTENTION!**