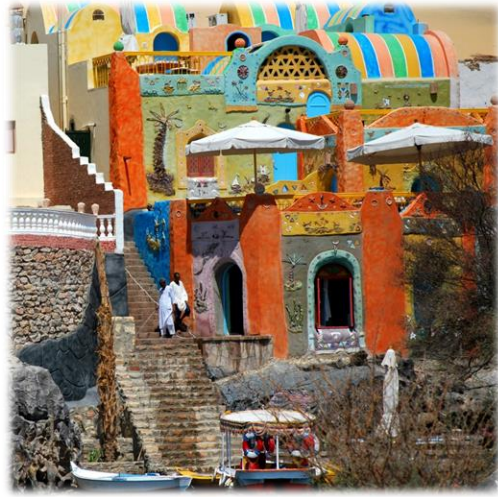


Critical Factors in Managing Technology

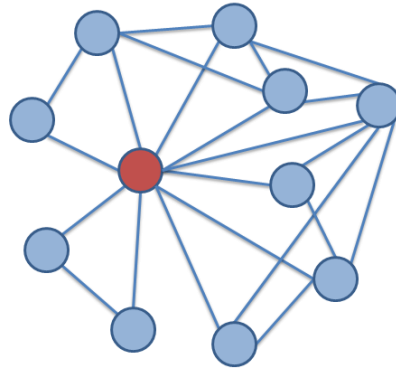


Define ...

- Discovery
- Invention
- Innovation
- Creativity

Why Innovation?

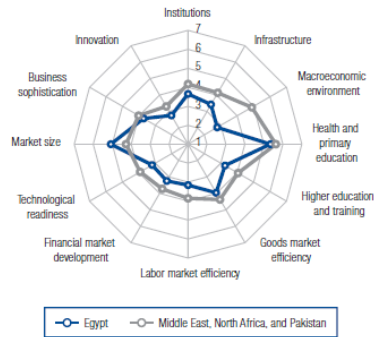
- To be Competitive and Rich on the:
 - Individual Level
 - Firm Level
 - Country Level



Egypt's Competitiveness Status

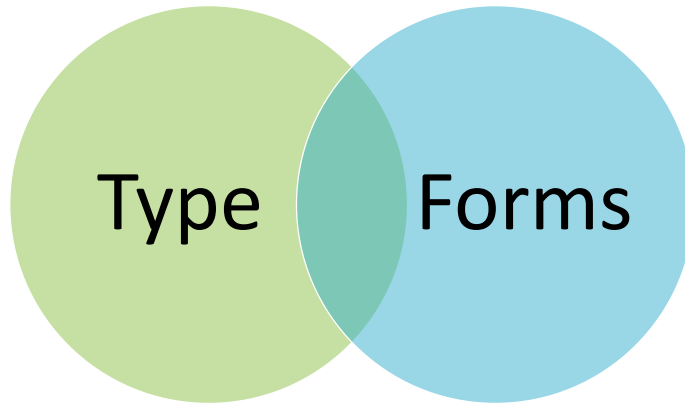
Global Competitiveness Index

	Rank (out of 140)	Score (1-7)
GCI 2015-2016	116	3.7
GCI 2014-2015 (out of 144).....	119	3.6
GCI 2013-2014 (out of 148).....	118	3.6
GCI 2012-2013 (out of 144).....	107	3.7
Basic requirements (40.0%)	115	3.8
1st pillar: Institutions	87	3.6
2nd pillar: Infrastructure	91	3.4
3rd pillar: Macroeconomic environment	137	2.8
4th pillar: Health and primary education	96	5.3
Efficiency enhancers (50.0%)	100	3.6
5th pillar: Higher education and training	111	3.2
6th pillar: Goods market efficiency.....	115	4.0
7th pillar: Labor market efficiency	137	3.2
8th pillar: Financial market development	119	3.2
9th pillar: Technological readiness	98	3.2
10th pillar: Market size.....	24	5.1
Innovation and sophistication factors (10.0%)	113	3.2
11th pillar: Business sophistication	89	3.7
12th pillar: Innovation	120	2.7

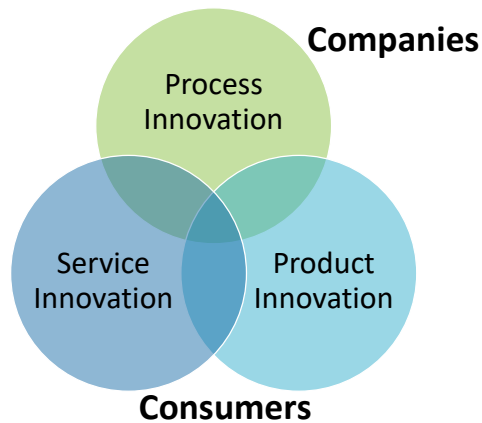


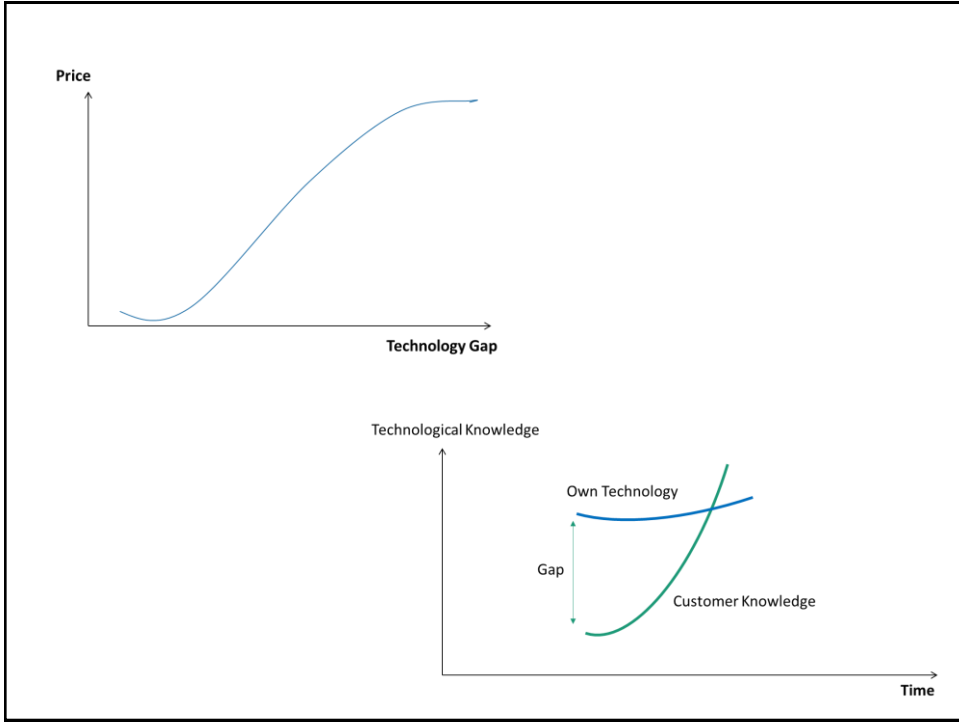
Ref.: The Global Competitiveness Report 2015-2016, World Economic Forum (WEF), 2015

Types and Forms of Innovation

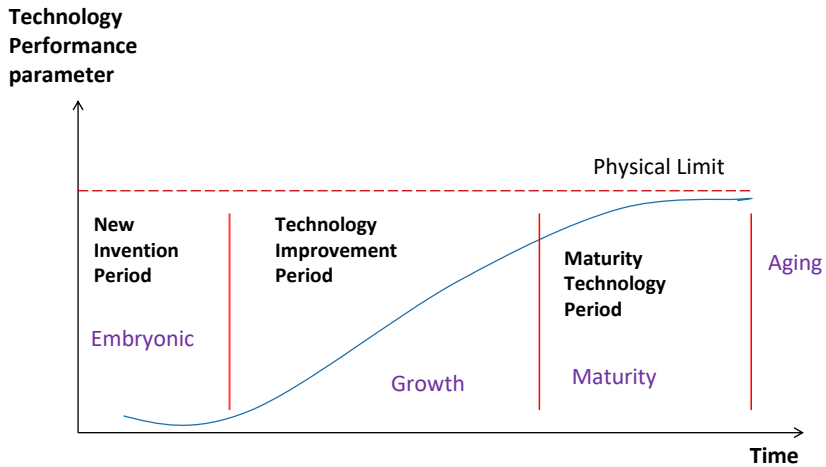


Forms of Innovation

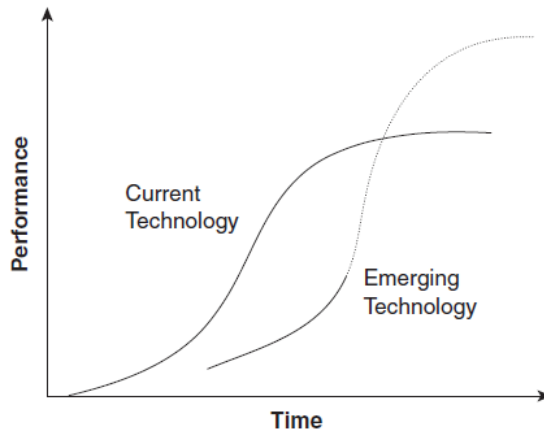




The S-Curve of Technological Progress



The S-Curve of Technological Progress



Remember!

- embryonic
- emerging
- growth
- mature
- commodity
- obsolete

Competing with Technology and Innovations

- Who wins from innovation?
 - First to market
 - Follower firms (imitators)
 - Firms that have related capabilities needed by the innovator
- Advantage of being a Leader in Innovation
 - ...
- Disadvantage of being a Leader in Innovation
 - ...

Outcome from Innovation Process

•Pilkington (Float Glass) •G.D. Searle (NutraSweet) •DuPont (Teflon)	1 •IBM (PC) •Matsushita (VHS format for VCR) •Seiko (Quartz watch)	•RC Cola (Diet Cola) •EMI (Scanner) •Bowmar (calculator) •Xerox ("Star") •DeHavilland (Comet)	2 3 4 •Kodak (Instant photography) •Northrup (F20) •DEC (PC)
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