Regulation conversion at telemedicine of UK and Korea in digital transformation; -The way to growing up new industry with open innovation dynamics

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Research Question

- What should the government do to motivate new industry such as telemedicine? Deregulation or regulation conversion ?
- How ?

Which is the role of the government to motivate the growth up of industries including converted new industries and emerging new industries in the 4th industrial revolution? In other words, we want to answer to the following research question.

Research Scope and method

- Concept model building for regulation conversion in structure and process
- Literature review and thinking experiment
 - Fascinating of concept model
- Focus group intensive interview with doctors of UK and Korea
- Participant observation and meta analysis
 - Validation of concept model for regulation conversion

- Survey with semi-structured questionnaire on UK, and Korea (potential) customer of telemedicine, and for-payment hospital

Literature review

- Deregulation
- Hayek(1943), Stigler(1971), Posner(1971, 1974),

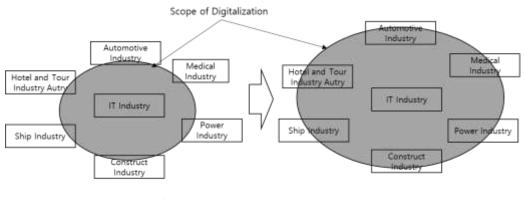
Peltzman(1976), Becker(1983), Peltzman et al.(1989), Choi(2012)

- Permission-less innovation
- Thierer(2014,2016), Chesbrough, and Alstyne(2015),

Hemphill(2020), Dostson(2015), Yun et al.(2019), Thierer et al.(2017)

- New institutional theory
- North(1990), Acemoglu et al.(2008), Ranchordas et al.(2013), North et al.(1986)
 - Institutional void
- Puffer et al. (2010), Mair et al. (2009), Stephan et al. (2015)
 - Mission capitalism; Mazzucato (2021)
 - For-profit hospital, and Telemedicine
- Sharyn (2001), Gain(2007), Giuler (2002), Shanberry(2002).

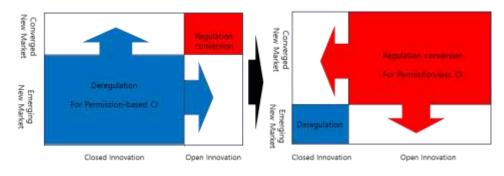
Change of economic environment with Digitalization



1st IT revolution(20th Century)

2nd IT revolution(4th Industrial Revolution)

Figure. Change of economic environment in the 4th industrial revolution



From Deregulation to Regulation conversion

Before the 4th industrial revolution with closed innovation paradigm

In the 4th industrial revolution with open innovation paradigm

Comparing; The structure of regulation conversion, and deregulation

- Policy cost payer of RC; modern market agent
- deregulation; customer + potential market agent

- Policy benefit receiver of RC; new market agent + customer
- deregulation; modern market agent
 - Policy customer of RC; Not manifest -potential new market customer
- deregulation; Manifest-modern market customer
 - Policy effect of RC; Converted New market emerging and growing with the decrease of modern market.
- deregulation; Modern Market short-term growth with new market emerging delay