

Digital Platforms in China: an Institutional Perspective

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**Safe and Ethical Cyberspace, digital assets and risks:
*How to assess the intangible impacts of a growing phenomenon?***

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Digital Economy in China

- Scale of digital economy in China (2017)
 - 27.2 trillion CNY (4.25 trillion USD)
 - 32.9% of GDP



e-commerce

- Tmall "Double 11"

14th & 15th June 2018



mobile payment

The World Conference on Intellectual Capital for Communities
- 14th Edition -



bike sharing

Leading Platform Companies: “BAT”

- Baidu
 - search engine +
 - music/video services, travel services, ...
- Alibaba
 - e-commerce +
 - payment, cloud computing, finance services, e-healthcare, ...
- Tencent
 - social networking +
 - payment, online games, music/video services, finance services, ...

Two-sided Platforms as an Institutional Phenomenon

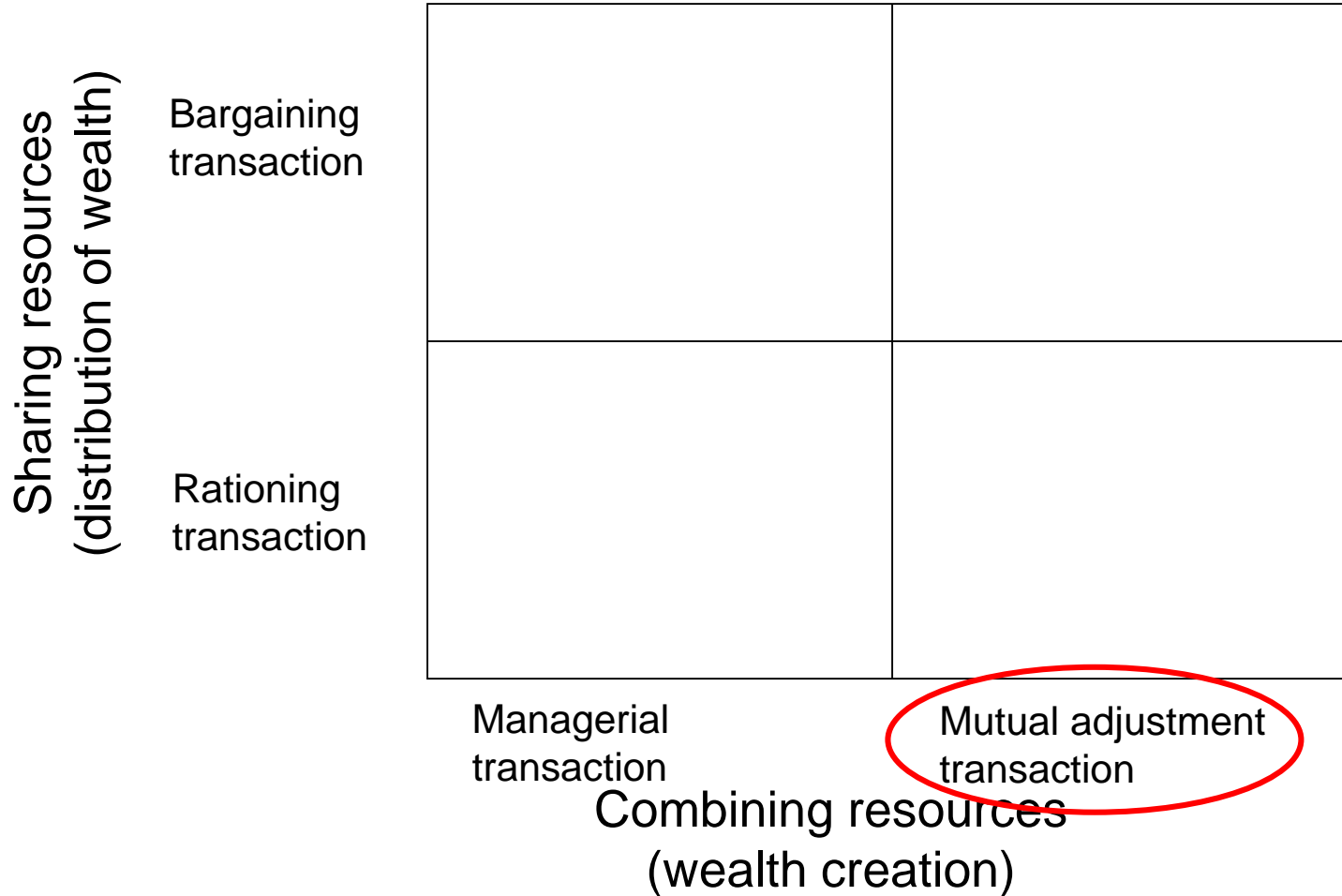
- John R. Commons' framework (1931 and 1990)
- Institution: “ *... collective action in control, liberation and expansion of individual action*”
- Two economic problems: distribution and creation of wealth
- Basic unit of analysis: transactions

Three Types of Transactions

- Relationship between people: equal or hierarchical?
- Relationship to economic problem: distribution or creation of wealth?
- **Bargaining** transaction: equals / distribution of wealth
- **Managerial** transaction: hierarchical / creation of wealth
- **Rationing** transaction: hierarchical / distribution of wealth

=> equal / creation of wealth?

Extending Common's Classification System



Application to Organizational Forms

Sharing resources	Bargaining transaction	Managed market: Exchanges	Clusters
	Rationing transaction	Hierarchical firms	Hybrids
		Managerial transaction	Mutual adjustment transaction
		Combining resources	

Classifying Two-sided Platforms

Sharing resources	Bargaining transaction	Online trading platforms	Virtual clusters (commerce in social networking)
	Rationing transaction	Online service delivery platforms	Industry-wide information infrastructures
		Managerial transaction	Mutual adjustment transaction
		Combining resources	

Understanding the Platforms in China

Sharing resources	Bargaining transaction	<p>Online trading platforms</p> <ul style="list-style-type: none"> • e.g., Taobao.com • Well facilitated 	<p>Virtual clusters (commerce in social networking)</p> <ul style="list-style-type: none"> • e.g., WeChat Commerce • Emerging
	Rationing transaction	<p>Online service delivery platforms</p> <ul style="list-style-type: none"> • e.g., Didi Chuxing (taxi and ride-sharing) • Well facilitated 	<p>Industry-wide information infrastructures</p> <ul style="list-style-type: none"> • underdeveloped in many industries
		Managerial transaction	Mutual adjustment transaction

Combining resources

Industry-wide Information Infrastructure: a Case

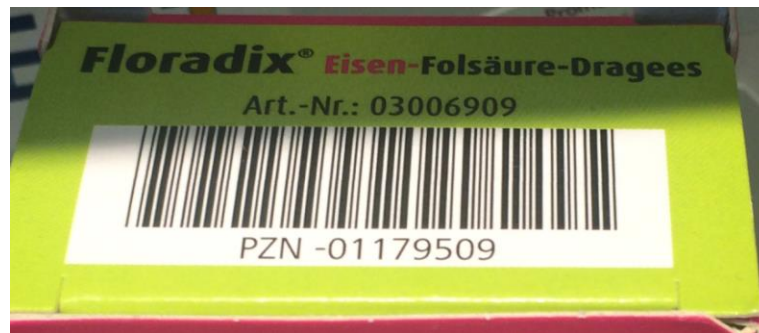
- Drug codes: a predicament in the pharmaceutical distribution industry
 - 20,000+ hospitals and 900,000+ clinics in China
 - 13,000+ distributors
 - 280,000+ pharmacies
 - 4,600+ manufacturers
 - companies use their own drug codes in their information systems, resulting in formidable obstacles for information exchange

Drug Codes

Intellectual Capital
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In the Knowledge
Economy



US: NDC code



Germany: PZN code



France: CIP/ACL code

- China: no unified code

The “e-supervision” Code in China

- Started from 2005
- Enforced by the government (CFDA, China Food and Drug Administration)
- Code for every sales-package item
- January 2015, CFDA mandated the use of a drug tracing system based on the e-supervision code
- January 2016, a pharmacy chain sued CFDA and refused to use the e-supervision code
- February 2016, CFDA abolished the e-supervision code
- The tracing system was transferred to Alibaba, but many companies still refused to use it

The Industry's Attempts to Establish a “Code-Mapping” Platform

- 1st attempt: establish the code mapping platform as a public service
 - Endorsement of the Ministry of Commerce
 - Failed eventually when the ministry was re-organized and the main sponsor was moved to another position
- 2nd attempt: establish the code mapping platform as an industry platform
 - Endorsement of the pharmaceutical association
 - Eventually failed when it became clear that the association is not in a position to nudge companies towards participation
- 3rd attempt: establish the code mapping platform as a private service
 - Enrolment of five large distributors
 - Eventually failed when only one distributor was willing to actually invest money into the company

Our Interpretation

- There is an “institutional void” in China’s pharmaceutical distribution industry
 - neither a top-down nor a bottom-up development process worked
 - the institutional structures needed to support a combined approach, as it is practiced in Germany, are not available in China

Conclusion: Understanding the Platforms in China

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		Managerial transaction	Mutual adjustment transaction

Combining resources