## **Sourcing and Developing Fintech Solutions: Risks and Opportunities**

Excerpts from

Winning Industry

#### **Professor Charles Fine** MIT Sloan School of Management Control in the Age of & Temporary Advantage President, CEO, & Dean Asia School of Business, Kuala Lumpur http:/asb.edu.my October 2019 charley@mit.edu



## Innovation and Business Success requires <u>Creativity & Disipline</u>

Creativity

# Discipline

## **Lessons for Fintech Sourcing:**

## Technology case study on Computers & Consumer Electronics

## **A Forty Year Retrospective**

# The Strategic Impact of Value Chain Design: (Who let Intel Inside?)

#### 1980: IBM designs a product, a process, & a value chain



The Outcome:

A phenomenally successful product design A disastrous value chain design (for IBM)

## LESSONS FROM A FRUIT FLY: THE PERSONAL COMPUTER

- 1. BEWARE OF *INTEL INSIDE*. (Regardless of your industry)
- 2. TACTICAL MAKE/BUY: IT MAY BE *CHEAPER* OR *FASTER* TO OUTSOURCE VERSUS INSOURCE.
- 3. STRATEGIC SOURCING: VALUE CHAIN DESIGN CAN DETERMINE THE FATE OF COMPANIES AND INDUSTRIES, AND OF PROFIT AND POWER.
- 4. THE LOCUS OF VALUE CHAIN CONTROL CAN SHIFT IN UNPREDICTABLE WAYS.

VALUE CHAIN DESIGN: Three Components

1. Insourcing/OutSourcing (The Make/Buy or Vertical Integration Decision)

2. Partner Selection (Choice of suppliers and partners for the chain)

3. The Contractual Relationship (Arm's length, joint venture, long-term contract, strategic alliance, equity participation, etc.) Vertical Industry Structure with Integral Product/System Architecture

## Computer Industry Structure, 1975-85



(A. Grove, Intel; and Farrell, Hunter & Saloner, Stanford)

# Horizontal Industry Structure with *Modular* Product/System Architecture

### Computer Industry Structure, 1985-95

Microprocessors	Intel Moto	AMD etc
Operating Systems	Microsoft Mac	Unix
Peripherals	HP Epson Seagate	etc etc
Applications Software	Microsoft Lotus Novell	etc
Network Services	AOL/Netscape Microsoft EDS	etc
Assembled Hardware	HP Compaq IBM Dell	etc

(A. Grove, Intel; and Farrell, Hunter & Saloner, Stanford)

### THE DYNAMICS OF PRODUCT ARCHITECTURE, STANDARDS, AND VALUE CHAIN STRUCTURE: "THE DOUBLE HELIX"



#### **Examples: IBM, Autos, Embraer/Boeing, Nokia, Small Firms**

### Fine & Whitney, "Is the Make/Buy Decision Process a Core



#### Source: Prof. Lee Yen Teik, ASB

## **UNBUNDLING IN ASIA AND THE US**

			DISRUPTORS <sup>1</sup> <sup>1</sup>	<i>腾</i> 流 Tencent	中国平安 PINGAN		Bai <b>都</b> 百度				DISRUPTORS		DISRUPTORS
PAYMENT	DIRECT BANK DEBIT TRANSFER SYSTEM MOBILE PAYMENT SOLUTION	UnionPay iR lix	之文付宝 Alipay	<ul> <li>○ 微信支付</li> <li>WeChat Pay</li> <li>● ○○鉄龟</li> <li>QQ Wallet</li> </ul>	Ping An E-wallet	京东钱包 <sup>3</sup> JD Pay	Google State Baidu Wallet	Solution Solution	SUNING 苏宁显望 回山地 美团	VISA	PayPal	JSB	© Pay LINE Pay
	PAYMENT SERVICE PROVIDER								wip.com		stripe adyen		GMO
FINANCING	PERSONAL LENDING	Banks such as :	<mark>() 花砚</mark> Ant Check Later	MeBank 1 遊众観行 Weilidai through WeBank	LUP2P.com	京东 <sup>3</sup> 白条 JD Baitiao	● 有我花 Baidu Umoney	Kuaiyihua	51161111 U51.com	Banks such as:	PROSPER	Banks such as:	
	SME LENDING	ICBC CCB BOC ABC BoCom	Mission Ant Micro Loan)	0001000000000000000000000000000000000	LU.com <sup>2</sup> Lufax	Jing Baobei <sup>3</sup> (京保贝) Jing Xiaodai (京小贷)	� 百順小班 Baidu Loan	Wanda Loans	lenovo	JP Morgan Chase BoA Citigroup Wells Fargo	OnDeck >	MUFG SMFG Mizuho	Freee Woory Forderd
	CROWD- FUNDING	Asset mgmt companies such as:	S 粉软体系 Antsdag	の意味の語 Tencent Gongyi	平安众筹 <sup>1</sup> ZHONG.COM Ping An Crowdfunding	3 JD Crowd- funding (京东众筹)	Bai a Bai Baidu Baizhong		€350	Asset mgmt companies such as:	KICKSTARTER: &AngelList	Asset mgmt companies such as:	Crowdcredit
SAVING / INVESTMENT	ONLINE SAVING PLATFORM	ICBC Credit Suisse Asset Mgmt E Fund Mgmt	▲ Ant Fortune ● 余額宝 <sup>1</sup> Yu'e Bao	① 理双述题 Licaitong	LU.com <sup>2</sup> Lufax	3 JD Wealth Mgmt (京东理財) <u>京东小全庫</u> JD Xisojinku	Bai a Baia Baidu Financial Supermarket	4 99Bill Wealth Mgmt (快钱理财)	SUNING 苏宁金融	BlackRock Fidelity Charles Schwab	BlackRock Fidelity Charles Schwab		
	ONLINE 5 ASSET MANAGEMENT	China Asset Mgmt Insurance companies such ass	天弘基金 Tianhong Asset Management ご 発展開展 Ant Fortune	() 建双过槽 Licaitong	陆基金 Lufunds.com Lufunds.com	Dongjia Caifu <sup>1</sup> (东家财富)	<mark> 百度理師</mark> Baidu Wealth Mgmt	99Bill Wealth Mgmt (快钱理财)	CreditEase	Insurance companies such as: Met Life	Wealthfront	Insurance companies such as: Dai-ichi Life	THEO
	ONLINE - ONLY BANK	China Life	MYbank MYbank	<del>MeBank <sup>1</sup></del> 微众银行 WeBank			Baixin Bank <sup>1</sup> (百信银行)		□□ <u></u> 小米 美团			Nippon Life	Japan Net Bank Rakuten B A N K
OTHERS	CLOUD COMPUTING		Ant Financial Cloud	例讯云 Tencent Cloud	Ping An Cloud	京东云 Jcloud.com	Bailing Bailing Bailing Financial Cloud	1 Wanda Cloud Company			Google IBM		🕐 NTT
	PERSONAL <sup>6</sup> CREDIT SCORING	Personal Credit Rating: Official personal credit record	う 芝願信用 Zhima Credit	Tencent Credit Bureau	Dianhai Credit Service Centre	3 Xiaobai Credit (小白信用)		1 ① 万达征信 WANEA CREDT	lenovo	Personal credit rating such as:	zesi finance		
	ONLINE-ONLY INSURANCE COMPANY	of PBOC	众安保险 <sup>1</sup> Zhong An Online P&C					Other insurance companies		FICO	oscar		
NOTE: 1. Not wholly owned. 2. Wholly owned by Lufax Holding. 3. Wholly owned by JD Finance. 4. Wholly owned by 990/ll.com. 5. At current stage, most of the online saving/asset management platforms in China are distributors instead of asset managers, except for Tianhong Asset Source: Company data, compiled by Goldman Sachs Global Investment Research Global Investment Research													
TECHFINS WITH BROAD ECOSYSTEMS						V	VERTICAL DISRUPTORS						

#### Source: Prof. Lee Yen Teik, ASB



# ALL COMPETITIVE ADVANTAGE IS TEMPORARY

- Autos:
- *Ford* in 1920, *GM* in 1955, *Toyota* in 2000
- *Computing: IBM* in 1970, *Wintel* in 1990, *Apple* in 2010
- World Dominion:
- Greece in 500 BC, Rome in 100AD, G.B. in 1800
- Sports:
- Red Sox in 2007, Celtics in 2008, Yankees in 2009
- The faster the clockspeed, the shorter the reign



## Innovation Dynamics can be RADICAL (disruptive) or INCREMENTAL (sustaining)



## ALL COMPETITIVE ADVANTAGE IS TEMPORARY



		<b>Technology and Industry Disruptions</b>							
		Industry Disruption	No Industry Disruption						
	Digital music	<ul> <li>Weak Incumbent Network Effect</li> <li>Strong Entrant</li> </ul>	<ul> <li>Incumbents can affect switching behavior</li> <li>Incumbents innovate</li> </ul>						
Technology or Process Disruption		Network Effect • Consumer highly price sensitive and willing to risk adopting innovative service with low quality and compatibility	<ul> <li>while maintaining quality</li> <li>Incumbents control complementary assets</li> <li>Entrants struggle to offer quality due to lack of functional control or market power</li> </ul>		Electric vehicles				
No Technology		Quadrant Not Relevant	• Strong Incumbent Network Effect	Li W	nux vs. /indows				
or Dis	Process ruption 18		Consumers value quality     and compatibility over     innovation and low price						

# All Conclusions are *Temporary*

**Clockspeeds are increasing almost everywhere Value Chains are changing rapidly** 



Assessment of value chain dynamics

Build Strategies and Roadmaps BACKUP SLIDES 20

What is the biggest challenge in rolling out fintech related initiatives in Asia? Do you believe that legacy FSI will triumph or will the challenger firms become more dominant, and if so why?

Individual Trust Government alignment Competitive platforms What in your mind the key contributing factor to the successful adoption of technology in the financial services industry, from both a practitioner as well as a regulatory angle? Is China a leader in this space?

Platform scale Data availability Innovation

Consumer experience

How do you think we can overcome this perceived fear factor, us legacy FSI folks seem to have when dealing with technology ? How do we take this leap of faith?

Disrupt yourself or wait for others to disrupt you Invest in software capabilities Invest in customer intimacy S curves require leaps of faith If you had to future forecast the FSI landscape in 10 years, how prevalent will the incursion of all things digital be? How vast will be the change in industry landscape?

Some say that forecasting is for fools Digital seems destined to dominate as long as we have electricity

To survive you must either be super efficient, super service oriented, government protected, or trafficking in trust.