

The Challenge to Rekindle China's Innovative Spirit

Dr Anton Kriz

Faculty of Business and Law

Newcastle Business School

19th November 2009



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

FACULTY OF
BUSINESS AND LAW



www.newcastle.edu.au



Until AD 800 or 900, China was far ahead of any western country in technology, in science, and in culture and civilization altogether

Peter Drucker, 1989, pp. 245-246

So what happened – why didn't China continue its ascendance?

This is called the Needham Question - after Joseph Needham who wrote the definitive works on China's technological discovery

...This paper traverses the history but importantly also looks at whether China's creative innovation can be rekindled

Background & synopsis

- Addresses a key issue in China's next stage of development: their propensity to create new things and innovate
- Attempts to take on Peter Drucker's challenge 'of the hard work of thinking' – conceptual paper
- Findings: China has a long history of successful innovation
 - However, Confucian belief, a single despot and a closing off to the rest of the world have thwarted its innovative edge
 - Key to rekindling the entrepreneurial spirit will be based on balancing the institution of Government with the needs of a creative class
 - This article identifies that much of this change will rely on quality-related developments rather than financial stealth
- China's success in innovation will have substantial implications for developed nations both economically and geo-politically

Introduction

- An unprecedented transition has occurred since Deng Xiaoping changed China's path and identified "to get rich is glorious"
 - China's GDP growth over the last two decades has been maintained at a staggering 9-10%
 - According to the World Bank 500 million Chinese have escaped poverty during this period
- However, arguably China's greatest challenge this century is to rekindle its innovative 'spirit' (Schumpeter, 1939)
 - A battle that will need conquering within (Hutton, 2006; Arrighi, 2007)
- China's rapid development under a planned state but a market economy is one of the greatest experiments in history
 - 'One country two systems'

Insights from Peter Drucker

- China is a great cost innovator (“factory of the world”) and has a SCA in this area
 - China’s great “longer-term” barrier is to go beyond imitation and cost innovation to imagination, creation and invention
- Given his views on market economies it’s likely Peter Drucker (2002c) would recommend that China focus on *knowledge* and *people*
 - In China’s case this means mobilising a *complex culture* and its *requisite institutions*
- Presciently Drucker (1992, p. 95) identified that we were entering a new story about ‘world history and world civilisation’ and not about a Western-centric worldview
 - Note: Obama’s visit this week; builds on rapid rise since 1978 which includes WTO acceptance, Olympic “flame”, upcoming Shanghai expo and China’s repositioning as Asia’s “middle kingdom”

The focus here is creative innovation

- Schumpeter (1939) identified innovation as the driving force of an economy - devastates some but rewards others
 - ‘Creative destruction’ is channelled through entrepreneurial ‘free spirits’
- Various views exist on what constitutes innovation.
 - ‘Innovation is the specific function of entrepreneurship...It is the means by which the entrepreneur creates new wealth-producing resources or endows existing resources with enhanced potential for creating wealth’. (Drucker 2002a , p. 95)
 - ‘Creativity is thinking up new things. Innovation is doing new things.’ (Theodore Levitt as cited in Shapiro, 2002, p. 7)
- Radical and disruptive innovation (Christensen, 2000) around creative intelligence (Rowe, 2004) using imagination, creativity and invention (Robinson, 2009) is the focus
 - Includes ‘expertise, creative thinking skills and motivation’ (Amabile, 1998, p. 78)

The focus is also China Inc as a unique institution (organisation)

- North's (2005) suggests informal and formal institutions help shape people's behaviour and interactions
 - Institutions have a potential to affect an 'individual's habits, conceptions and preferences' (Hodgson 2003 , p. 154)
- This has profound implications for China
 - Ricky Yan (1994) offers a key insight into the “softer” attributes of Chinese society
 - Foreigners need to understand *guo qing* or Chinese special local characteristics
 - China is no ordinary society, but one of the last communist frontiers where the institution of Government has a direct role
- Peter Drucker (leading advocate on management organisations) was privy to some of the great conversations in history on such issues
 - The real battle for China is Government-centric and will be a function of how the polity copes with, supports and encourages more liberalised people (potential freer spirits)

China's cultural traditions (5000 years in one slide)

- Well known philosophers like Confucius and Laozi, strategists like Sunzi, and legalists like Han Fei all played a role in China's development
- Confucius' central thesis proffered the benefits of moral virtue
 - Led to a non-litigious society reliant on the “rule of man” with *xinren* (trust) and *guanxi* (relationships and connectedness) becoming informal surrogates for a lack of formal systems trust
- Confucian and other Chinese values have positive and negative values in relation to aspects like innovation
 - Ritual and observance provide discipline (help convergent thinking) but are likely to hamper eureka moments (hamper divergent thinking)
 - A historical lack of encouragement for merchants and mercantilism as opposed to mandarins and public service has also deviated China off its technological inventive path (Winchester, 2008).

History of innovation and diverging worldviews

- ‘It is a common-place irony that three inventions which helped to establish western world hegemony – the magnetic compass, gunpowder and the printing press – had been known in China for centuries before they appeared in Europe.’ (Fernandez-Amesto 1995, p. 680)
 - Needham found many more
 - Chinese resourcefulness and way of thinking enabled such early technological development
- Why the Chinese have not harnessed this goes back to institutional changes around 200BC and an Emperor’s catalytic conversion in the 1400s
 - Brown (1991) identified a human universal that he believes is innate to all:
 - West rationalise in a binary dyadic way
 - However, Chinese made a gestalt shift - this variation has its roots in philosophy and the pursuit of holism and harmony and aspects like yin-yang
- Meanwhile the West adopted the technology and added scientific method and industrialisation while China stagnated and the rest as they say...

China's recent record and global innovation ranking

- The Chinese are trying to catch up - modern China's evolution as an innovative nation can be divided into five key stages (Xie & White, 2006):
 - Stage 1 (1949-1960) started with the emergence of Mao's People's Republic of China and an industrialisation around "bedrock" industries.
 - Stage 2 (1960-1978) saw increasing tensions between the Soviet Union and Mao; and the Cultural Revolution
 - Stage 3 (1978-1991) was the catalyst for the new Open Door Policy (1978)
 - Stage 4 (1992-2000) saw a revitalisation of local industry with FDI channelled to broader activities
 - Stage 5 (2001 onwards) and the *modern Chinese industrial revolution*
- Has lifted China in the global innovation rankings (37th on Global Innovation Index) with 2.5% of GDP now targeted at R&D.
 - Other targets include technological advances to 60% and becoming top 5 in the world for patents and science citations
- Pure numbers will help but I argue the key is likely to come from 4 "softer" qualitative elements

China's future innovative development (1): Learning and innovation

- The Chinese Imperial Examination system is legendary and has provided a solid process of meritocracy and governance (Dreyer, 1996)
- A number of the principles have been adopted in China's modern school based system
- Abundance of social equity can be tapped (China's pure numbers)
- However, it's the *quality* of social capital not the *quantity* that enables creative innovation
- 3 common elements in best systems of education (Barber & Mourshed, 2007):
 - they recruit quality people to teaching;
 - they ensure these people have excellent instruction;
 - they make sure this level of instruction is accessible to every student
- China has to nurture knowledge workers to go beyond "brute force" innovation (Kao 2009) and grow 'creative intelligence' (Rowe, 2004)
- As Drucker (2006, p. 145) would suggest it's 'knowledge workers' who work with their 'minds' rather than hands.

China's future innovative development (2): Climate for creativity

- *The Rise of the Creative Class* identifies criteria for creative innovation (Florida 2002)
 - Create the right environment and attract and nurture the right people and creative things happen
 - Measures include the number of high tech firms and innovations, the talent pool and diversity
 - China is rising in the patent stakes, regions are competing once again, and university numbers and OS education is rising
- Formal institutional change is important - links to Amabile's idea of setting up in this case China Inc's own 'climate for creativity'
- To attract the right people you need appropriate infrastructure and amenities
 - Social innovation is as important as scientific innovation (Drucker 1992)
 - A challenge but there are inroads (200 million urban new "cool")
 - Changing demographics as Drucker identified is a key to structural change

China's future innovative development

(3): Nurturing innovation risk-takers

- Survival in China has meant learning to adapt and being flexible
- Tom Doctoroff (2005, p. 8) notes 'To survive, let alone advance, adaptive traits are required and the Chinese have them in spades'.
 - Believing that 'creativity' is not one of their strengths, he goes on to suggest they revere knowledge and are extremely resourceful, intelligent, patriotic and above all 'analytically and tactically brilliant'
- The Chinese have a history of minimising risk through *guanxi* and trust (*xinren*)
 - Hence, the institution of systems trust in China is quite new in relative terms and is changing these behaviours
- It is probable that individual risk-taking was necessary for successful merchants (in the DNA of OS Chinese)
- The people of Wenzhou provide a classic case (known throughout China for their entrepreneurship)
- Move away from SOEs to private SMEs (some large) – a new breed of risk taker and successful entrepreneur

China's future innovative development (4): Managing China's informal and formal institution

15

- Balazs (1965) suggested that it was the State's fault that technological progress was killed off in China by limiting the spirit of inquiry and innovation
- The concept of 'cumulative causation' is an important aspect emanating out of the Institutional Economics literature
 - It suggests that Governments can change pathways and alter trajectories but this is limited to 'incremental change'
 - China may be the first exception i.e. large capital inflows, modern logistics and new forms of communication can speed up change
- Kao (2009, p. 112) suggests a "Large-scale Ecosystem" model of innovation is extraordinarily difficult
 - Intensive and extensive innovation clustering around a National strategy
- Drucker (2002a, p. 102) observed that 'innovation requires knowledge, ingenuity, and, above all else focus'
 - No one seems to doubt China Inc's *focus* but many question their ability to allow people a *freer* spirit (in one country but two systems)

Discussion and conclusion

- Rekindling China's innovative creative spirit is China's greatest challenge?
 - It's likely to also take "one country and a modified system"
- Drucker (1992, p. 100) is well known for identifying that in an organisation, "People are our greatest asset"
 - Rapid economic progress and income equality will be two key elements - people's propensity is not the issue (Diamond, 1997)
- The issue stems from culture which then became institutionalised
- In a yin-yang paradox, it's the nature of the Government that makes China so strong
 - Hu Jintao (China Inc.'s CEO) and Wen Jiabao (China Inc.'s COO) have the power to orchestrate change (in the organisation)
 - These changes can be enacted more quickly than in the West (Pros and Cons)
 - Stymied China since the mid 1400's but could be a source of major SCA
- It is the *velocity* and *speed* of change that is probably now most at question
 - But how much latitude can the PRC give their "spirits" to run free?

On that note I will leave the last words to the champion of the Forum - Peter Drucker

- For those that question China's ability to make such a transition
- '...the greatest change of all is probably that in the last 40 years purposeful innovation – both technical and social – has itself become an organised discipline that is both teachable and learnable' (Drucker, 1992, p. 97).

THANK YOU

Questions



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

www.newcastle.edu.au