

# Service Innovations in South Korea, Taiwan, India, China, Singapore, Brazil and the US

English summary



Tommy Bergkvist

SMI – Strategic Management Institute

## **Foreword from the author**

This report is an appendix to VINNOVA's government-commissioned needs analysis for knowledge and skills in service innovation, relating to industry and the public sector.

To complement its Swedish needs analysis, VINNOVA has also decided to conduct an international survey, from a European perspective as well as from a selection of countries beyond Europe. This report deals with the non-European countries; more specifically South Korea, Taiwan, India, China, Singapore, Brazil and the US.

The analysis focuses on the various countries' outlook on service innovations in regard to: strategies; national areas of strength; research funding and active research actors; R&D partnerships with industry and the public sector; the results of completed analyses.

The study was carried out primarily during October 2011 and is based on content analyses of the material we were able to access at that time.

Stockholm, 4<sup>th</sup> November 2011

*Tommy Bergkvist*

# Summary

Understanding different countries' service innovation efforts – why they invest in a given area and why they choose particular means of doing it – also requires an understanding of the needs which the various efforts aim to solve. Countries investing in the same area may do so based on entirely different approaches and with the aim of solving quite different problems through their efforts.

India's efforts in *inclusive innovations* aim to combat the great poverty in the country; a high-priority innovation need on the political agenda. At the same time, India is known on the global market for its innovative IT solutions, or *new to the world innovations* – an innovation area certain to be highly valued, albeit for quite different reasons. The fight against poverty probably does not leave quite the same wake in service research as does IT-related service development.

Similarly, there is a renewal of the service sector in China. This is not so much about service innovations but more about modernising the service sector – a sector which, aside from research-based innovation issues, has major fundamental problems to cope with.

Different policy choices in terms of national innovation priorities are therefore based on what scale of challenges can be accommodated within the country and how much impetus there is to create growth on the global market for that particular country. Singapore is a good example of a country without great rural poverty but which has invested in the creation of new knowledge in a whole range of areas by establishing research institutes to conduct innovative, cutting-edge research activity.

Thus, learning from other countries requires us to translate our efforts into related needs. The danger lies in tending to categorise countries and innovations and draw similar conclusions for both countries. The so-called BRIC countries have already been categorised through their acronym but otherwise have a rich variety of innovation needs and opportunities.

Another difficulty lies in finding service innovation efforts. Some countries, such as South Korea and Taiwan, are very clear in highlighting these and in explaining the special features of service innovations and what distinguishes them from more traditional innovation activity. Other countries are much less explicit, such as China, the US and Brazil. This may be due to innovation activity being defined in more traditional terms, with technology, industry and manufacturing as important ingredients. Moreover, service development is not regarded as innovation activity, even if there is underlying vital service development.

In this context, the actual concept of innovation may present another difficulty. The concept of innovation is often defined as an idea having gained acceptance and

application on the market. In countries lacking a market economy (China at any rate), this may not be understood in the same way. This is because most services there are free or heavily subsidised and introduced under a fixed five-year plan. Combined with what might be called a major need to modernise, the service sector and small number of service companies on the market, renewal is more a case of the central authorities' capacity to renew themselves than individual entrepreneurs creating new services for the market. This has been noted within China as an important obstacle to the development of innovative service solutions and of course heavily influences answers to the question of how to regard service innovations in different countries.

The fact that manufacturing and service activity are now often heavily integrated and also bundled in customer offerings may also be a reason why service development is not always highlighted as a separate area. However, there are examples of countries which make a point of shifting focus from manufacturing to services even in integrated offerings, such as South Korea which emphasises the importance of going from *green manufacture* to talking about constructing a *green service industry* for addressing global environmental challenges.

There are also some recurrent themes. In many countries, IT as a facilitator of increased productivity in service production has been seen as a vital factor in creating a better service for the broad population groups often found in rural areas. The existing low levels of service provide great potential for improvement which is easy to identify. The focus in this regard is often on areas such as education, healthcare and health information.

Countries with more resources and more well-developed welfare efforts are more focused on service areas such as media, fashion and financial services. Naturally, the great global challenges of climate and environment and various associated green efforts are also commonly occurring innovation themes.

# Sources and references

## South Korea

MKE - Ministry of Knowledge Economy <http://www.mke.go.kr/language/eng/>

MEST - Ministry of Education, Science and Technology  
<http://english.mest.go.kr/enMain.do>

STEPI - Science & Technology Policy Institute <http://www.stepi.re.kr/eng/>

Statistics Korea <http://kostat.go.kr/portal/english/index.action>

## Taiwan

CDRi - Commerce Development Research Institute <http://www.cdri.org.tw>

Institute for Knowledge Services and Innovation  
College of Management, Yuan-Ze University  
<http://www.cm.yzu.edu.tw/cmen/content.aspx?category=7&m=106>

DGBAS – Directorate-General of Budget, Accounting and Statistics  
<http://eng.dgbas.gov.tw>

Government Information Office, Republic of China (Taiwan) <http://www.gio.gov.tw>

National Statistics, Republic of China (Taiwan) <http://eng.stat.gov.tw>

## India

National Knowledge Commission, Government of India  
[www.knowledgecommission.gov.in](http://www.knowledgecommission.gov.in)

Advisor to the Prime Minister [www.iii.gov.in](http://www.iii.gov.in)

SRII-Service Research and Innovation Institute India <http://www.srii-india.org/>

National Innovation Council <http://www.innovationcouncil.gov.in/>

National Knowledge Network <http://www.nkn.in>

National Innovation Portal [www.innovation.gov.in](http://www.innovation.gov.in)

NASSCOM <http://www.nasscom.in/>

Erehwon Consulting <http://www.erehwonconsulting.com/>

Evalueserve <http://www.evalueserve.com/site/>

Innovation Hot Spots in India, TAFTIE 2011

<http://www.taftie.org/taftie.content.asp?ContentId=3>

India Economic Survey, 2006-07 <http://indiabudget.nic.in>

Unleashing India's Innovation, The World Bank 2007

<http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1181699473021/3876782-1191373775504/indiainnovationfull.pdf>

R&D Ecosystem in India

Report by British and Canadian High Commission

## **China**

Ministry of Science and Technology <http://www.most.gov.cn/eng/>

National Natural Science Foundation of China

<http://www.nsf.gov.cn/Portal0/default106.htm>

Ministry of Education

[http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe\\_2792/index.html](http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_2792/index.html)

National Development and Reform Commission <http://www.ndrc.gov.cn>

Institute of Policy and Management at Chinese Academy of Sciences

<http://english.ipm.cas.cn/>

Chinese Academy of Sciences <http://english.cas.cn/>

## **Singapore**

Singapore Government <http://www.gov.sg/government/web/content/govsg/classic/home>

Singapore Department of Statistics <http://www.singstat.gov.sg/svcs/services.html>

A\*STAR – Agency for Science, Technology and Research <http://www.a-star.edu.sg/>

Spring Singapore <http://www.spring.gov.sg/Pages/Homepage.aspx>

## **Brazil**

CGEE - Center for Strategic Studies and Management Science, Technology and Innovation <http://www.cgee.org.br/sobre/english.php>

ABDI - Brazilian Industry Development Agency

<http://www.abdi.com.br/Paginas/Default.aspx>

FINEP - Brazilian National R&D&I Funding organisation

[http://www.brasil.gov.br/sobre/science-and-technology/fostering-and-support/finep/br\\_model1?set\\_language=en](http://www.brasil.gov.br/sobre/science-and-technology/fostering-and-support/finep/br_model1?set_language=en)

IPEA - Institute for Applied Economic Research

<http://www.brasil.gov.br/sobre/geography/bodies/institute-of-applied-economic-research>

CISB - Swedish Brazilian Research Center <http://www.cisb.org.br/>

MBC - Movimento Brasil Competitivo <http://www.mbc.org.br/mbc/novo/>

## **USA**

US Government <http://www.whitehouse.gov>

ITIF - Information Technology and Innovation Foundation <http://www.itif.org/>

Government Innovators Network <http://www.innovations.harvard.edu/>

Ash Center for Democratic Governance and Innovation at the Kennedy School at Harvard <http://www.ash.harvard.edu/>

Athena <http://athenaalliance.org/>

Peer Insight <http://www.peerinsight.com/>

Motiv <http://motivstrategies.com>

IBM Service Science <http://www.almaden.ibm.com/asr/>