

CBS BIS/Competitiveness Platform

Report on Academic Workshop, December 11, 2013:

Location of MNC innovation in emerging markets and developing countries: Can innovation be unbundled from production and sales functions?

The academic workshop was organized by associate professors, **Michael W. Hansen** and **Peter Wad** from Centre for Business and Development Studies, Department of Intercultural Communication and Management, supported by a research network of researchers from DBP and SMG, CBS and Aalborg University and Roskilde University. The workshop followed a public seminar with guest speakers from the Danish business community about internationalization of innovation by Danish firms to emerging markets. Both arrangements were facilitated by Centre for Business and Development and a grant with administrative support from the CBS Business-in-Society Competitiveness Platform

The theme of the workshop was 'Location of MNC innovation in emerging markets and developing countries: Can innovation be unbundled from production and sales functions?' The background for setting up such an event was a longstanding interest in undertaking joint research on this theme among scholars at CBS and other places.

The aim was to exchange research based knowledge on innovation, MNCs and emerging markets, and through academic deliberations identify future research agendas theoretically and empirically. Moreover, the workshop would also explore opportunities for future collaboration like publication of a special issue in an international journal and ideas for research projects.

The workshop gathered a group of international researchers with interest and research experience in the theme of globalization of multinational corporate innovation and sourcing of innovation in emerging markets and developing countries. The focus was especially on MNCs from OECD countries (Northern MNCs) with particular emphasis on Nordic MNCs. However, MNCs from emerging markets like China and India were also part of the agenda for comparative and competitive reasons.

The program consisted of key note speeches and abstract presentations followed by discussions in plenum. The first key note was delivered by **John Cantwell**, distinguished professor of International Business at the Department of Management and Global Business, Rutgers University, USA. He has been researching and publishing on corporate innovation since the middle of the 1980s and is presently Editor in Chief of Journal of International Business Studies.

Based on a short analysis of the changing global business environment John argued that technological catch-up firms in the past relied on simpler capabilities with less international connectedness indicated by licensing revenues. Today, higher levels of corporate technology rely on sustained international knowledge interdependencies indicated by inventive sources of patents. Specifically addressing key questions of the workshop John emphasized among other things that differences in offshoring of innovation activities correlate with differences in host-country institutional and organizational environments which again can be traced to differences in national policies impacting interaction between foreign MNCs and indigenous companies. Moreover, he noticed that more advanced value adding innovation is more bundled to similar centers of innovation and less bundled to other parts of the global production network. Finally,

the competitiveness of large MNCs relies even more on their integrative capabilities in cross-border innovative networking.

The second key note was made by **Rasmus Lema** and **Stine Haakonsson**. Rasmus Lema is assistant professor, Department of Business and Management, Aalborg University. He is member of 'Globelics' secretariat and his research has explored organizational decomposition and globalization of innovation activities within industries like ICT software, wind turbine manufacturing etc. and the emergence of innovation systems in e.g. China and India. Stine Haakonsson is associate professor, Department of Business and Politics, CBS. Her research has focused on global innovation networks and she has been publishing among other things on the global pharmaceutical and wind turbine industry.

In their key note Rasmus and Stine underlined that unbundling of corporate innovation is a significant driver of geographical dispersion of innovation. The concept of innovation unbundling is understood as 'organizational decomposition of innovation processes' (ODIP) and part of the fragmentation of corporate functions (R&D, manufacturing, sales). ODIP is analyzed as an evolutionary process away from specialized and concentrated R&D units through intra-firm decentralized units into external networks of decentralized R&D units. This organizational process was analyzed with a case about European and Chinese wind power industries comparing Danish and Chinese wind power firms. Concluding the key note Stine and Rasmus argued that different trajectories were identified and that their dynamics varied according to industrial sector, type of activity, realized capabilities. However, the dynamics did not seem to depend on innovation complexity. In the wind power industry Danish and Chinese firms evolved in opposite directions in terms of unbundling and (re)bundling.

The third key note speaker was **Torben Pedersen**, professor at Department of Strategic Management and Globalization, CBS and at Bocconi University, Italy. He has researched and published extensively on international business, offshoring and outsourcing and recently focused on internationalization of innovation. Taking the R&D function as being close to the core competencies Torben argued that corporate R&D in e.g. Danish firms is offshored to improve competitiveness and this is also achieved in many cases although offshoring has hidden costs which may be managed or they overtake the advantages under certain conditions. Offshoring of R&D does not seem to directly relocate R&D staff to foreign locations but R&D staff is expanded faster abroad than at home in recent years. The most difficult challenges of R&D offshoring is to fine-slice, allocate and coordinate R&D staff across the world and with relevant other corporate functions of sales, marketing, production, and knowledge generation outside the intra-corporate network.

Supplementing the key note, an abstract on internationalization of innovation by Swedish MNCs was presentation by **Inge Ivarsson**, professor, Göteborg University. Inge's research provided strong evidence of bundling of production and R&D in Swedish MNCs.

The third key note speaker was **Poul Houman Andersen**, professor, Department of Business and Management, Aalborg University. His research has addressed issues of international business in regard to interfaces of innovation, production and distribution, marketing, sales, and he has published in many international journals on these issues. His presentation focused on a Bottom of the Pyramid (BOP) innovation project by Grundfos – Lifelink – and the challenges

associated with innovating not only on products but also on business models in order to service the BOP.

In his key note Poul addressed the question: How do different ontologies affect local mobilization processes in BoP tech transfers? The ontology of successful technology transfer to BOP markets are held to be found in the indivisibility of technology and context, institutional distances and voids, empowering local communities, and technology transparency. Contrasting two cases of technology transfer in Zimbabwe and Kenya respectively Poul concluded among other things that technology transfer can be achieved successfully through different ontologies that vary according to who they target to activate and how they mobilize these actors. There is no 'best' practices!

Supplementing the key note **Jason Li-Ying**, associate professor, DTU, presented an abstract about his and colleagues' research on technology licensing in China based on a unique database of Chinese licensing and patent data..

The workshop presentations were ended with an abstract presentation by **Marcus M. Larsen**, assistant professor, CBS. Marcus M. Larsen spoke about research on emerging economy multinationals' (EMNEs') innovation catch-up with advanced economy multinationals (AMNEs) with particular focus on the global wind turbine industry and comparing a Danish and Indian wind turbine manufacturer.

The workshop was wrapped up by Michael W. Hansen. In terms of *method and theory* he emphasized the richness of cases and evidence presented and concomitant, the data challenges: What proxies can we use (licenses, patents, survey, R&D expenditures etc.). Disaggregated data are needed, informality is difficult to measure but it is increasingly important. Multiple levels and activities were addressed: Country, industry, firm, function, task etc. The issues of placement of innovation in value chains, or the value chain of innovation, added complexity to the discussion. How to classify countries (catching up-catched up-falling behind/ old innovation versus new innovation countries/ IDP). Managerial/ strategic versus organizational versus economic perspectives. GVC versus Porter value chain.

In terms of *trends in innovation bundling* the workshop noticed that innovation sourcing is becoming more important and more complex, very substantial R&D location in emerging markets, complexities of the smile of value chain increasing, bundling to production important in some industries and firms (but others not). In terms of specific bundling issues, research must take a more differentiated view on the problem area: inter-functional versus intra function dependencies: Can we isolate the innovation discussion from the other discussions of internationalization? Market driven versus production driven bundling? Trajectories of bundling in western and emerging market MNCs? Colocation: Simple/non-complex/ tangible/formal activities versus complex/ intangible/ informal activities. Spiky versus flat world. Local adaptation of technology through business model innovation (open innovation?). Benefits of innovation dispersion are countered by coordination costs and stickiness: Culture, documentation, etc.

Finally, in terms of *implications for company, country, welfare, issues* regarding substitution versus complementarity boils down to a question of offshoring of innovation as a plus-sum, zero-

sum game for home-country R&D staff, corporate workforce in total and the home country as a whole?

The workshop disclosed that there are many researchers located in Denmark and Southern Sweden that take an interest in globalization of corporate innovation and the offshoring of innovation activities to emerging markets and developing countries. The research network intends to develop network activities across departmental and university borders within the Nordic countries extending and sourcing research exchanges with scholars in the North and the South. Next step could be an international workshop on corporate innovation of emerging markets multinationals and how globalization of their innovation functions may challenge Northern firms around the world.

(report by MWH/PW)