15.229 - Managing Global Integration

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Session 11
The Multidimensional Organization
(an example of the challenges of global integration)

STMicroelectronics
(2004)

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The Global “central”

Function*
(at HQ or Region)

Geography
(Country or Office)

(In some “global” MNCs, “country managers” become legal representatives and “ambassadors” or “hotel mgrs”)

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Managing in such a “matrix” requires that formalization (say, of functions and processes, as well as of roles and responsibilities of the top line), performance appraisal and information systems all be of high quality – and that “exceptions” be rare. Otherwise the managers in the top level of the two sides of the “matrix” will do nothing else than sort out lower level matters and conflicts. The positive side of such a structure is that it shapes a setting where the top managers in the two sides must “work together” – even if they are not together. High levels of trust and a shared “view of the world” are necessary.
This structure has emerged as multinationals observed different needs of global integration in different functions (with sales and after-sales service usually left in local autonomy mode). The key challenge here is the link between the “front” and the “back”, visible for example in new product development, in operations planning, in transfer pricing, and so on. As any hybrid, it calls for different styles of management at the top level, another key challenge.
The dispersion of "order" and "delivery"
(One more factor of global integration)

- Sales by customer origin % of 2004 sales
- Sales by region % of 2004 sales

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- 27% Europe
- 46% Asia/Pac
- 11% Emerging Markets
- 15% North America
- 28% North America
- 5% Japan
- 6% Japan
- 42% Asia/Pac
- 17% North America
- 63% Europe
- 15% North America
- 27% Europe
- 46% Asia/Pac
- 11% Emerging Markets
- 3% North America
- 6% Japan
- 42% Asia/Pac
- 17% North America
- 63% Europe

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The top of a multi-dimensional structure organisation: a “global virtual team”

1) One of the major challenges for managers in a globally integrating company is that management is not done together with colleagues that share the same space and national context. The managers of the top line of a “matrix”, for example, are members of a “global virtual team”. They may not see it like this, but that does not change the fact that more and more they will have to work together and make joint decisions with colleagues that are both dispersed in distant locations and act in diverse contexts, be it national contexts, functional contexts, or industry context.

2) This is partly a generational issue. Older managers, who tend to be at the top, are exactly those whose careers were likely made in multi-domestic organisations (or in export-mode MNCs). Part of their skills, which made them into what they are now, were in-tune with those simpler forms of organising in a non-global world, not with multidimensional organisations in a global one. It is very hard for a manager that made his career in the home country, moving up the ladder with great local knowledge and local political ability, to suddenly have to evaluate cases or make decisions in alien contexts and with distant foreign managers who are not exactly fellows. Lower down in the organisation, younger managers are part of distributed R&D teams, global account teams, global supply teams, and so on. Most are learning-by-doing how to perform well in a global virtual team, but they find it more normal, they tend to be more familiar with technology-mediated communications, they travel more. And for many, by the way, this is what they did since they begun working. The don’t even have the reference point of a classic team, collocated and confluent.

3) In an effective global integrated MNC, there is no alternative to an eGLT nor to the fact that such global leadership team be a virtual team. It is not possible to successfully manage a MNC in a global world with a classic management team of buddy compatriots with offices on the same floor of home-based corporate HQ.

4) A virtual top management team and a dispersed HQ are the hallmarks of the XXI century MNC.
NB: KU and Kti added here to the original slide.

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(Source: STMicroelectronics Presentations, as of 1993)

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Chips for HDD

Traditional offer

ST system-on-chip (s-o-c) a breakthrough innovation

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ST in s-o-c for HDD (Data Storage)

- Lead Customers R&D and Engineering:
  Seagate, Western Digital (California, Colorado, ...)

- Joint Design center with Seagate:
  Scotts Valley, CA

- Competence on R/W technology:
  (JV) EXAR, CA

- Engineering and Design Capability / Close understanding of customer application / Design Center: S. Jose CA

- Design of ‘packaging’, testing and final assembly (Back End) capability:
  Malaysia, Singapore

- Lead Customers Operations:
  Singapore

- Microprocessor development:
  (JV) Siemens, D

- Process Technology R&D in Bipolar and BCD; Design competence on analog and mixed chips:
  Milano, Italy

- Process Technology R&D in BICMOS (mixed) and CMOS (digital); Manufacturing(Front End):
  Grenoble, France

- Engineering and Design skills in fast microprocessors:
  Bristol, U.K.
STMicroelectronics in chips for HDD is metanational because…

1. The non-mobile resources required to produce its breakthrough innovation (the s-o-c for HDD) were dispersed around the World.

2. It found the optimal combination of resources through an emergent process of interaction with local customers, competitors, and suppliers dispersed around the World (~1985-2000).

   i. ST chips for HDD’s performance worldwide was superior because the global optimum it found is superior to any national optimum (Doz, Santos, Williamson, 2001) …

   ii. … and it found such global optimum with superior efficiency than any other company …

   iii. … and it increased its geographic scope in such a way that its original metanational advantage was amplified.
“World, Sweet World”
The “3-Planes” in the Metanational Innovation Process

(For more see: “Global Innovation” (article) and “From Global to Metanational” (book) )  For the SFs at MIT Sloan - © Jose Santos, 2012
Building the Metanational Company

- Prospect the world for new capabilities and market knowledge
- ‘Plug-in’ to learn new knowledge
- Set up ‘magnets’ to bring together knowledge items dispersed around the world
- Innovate by melding dispersed capabilities and market knowledge
- Relay innovations into the operations network
- Use global operations to leverage dispersed capabilities and knowledge rather than to ‘project’ home orthodoxies

(Source: Doz, Santos, & Williamson, “From Global to Metanational”)

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Sensing world-class knowledge locally

(Source: Doz, Santos, & Williamson, "From Global to Metanational")
The functions of the “Magnet”

✓ It specifies (dynamically) what is required to create the innovation

✓ It brings people together by being a piece of common ground

✓ It provides “energy” (purpose, direction)

✓ It identifies knowledge gaps and new sensing initiatives
Metanationals’ worldview

✓ Difference is even more attractive than similarity

✓ The world is a galaxy of pockets of specialised knowledge

✓ Each location/unit has an original, unique contribution to a mutually dependent organisation

✓ The organisation must have a common, yet de-nationalised, culture

(Source: Doz, Santos, & Williamson, “From Global to Metanational”)
Global Integration and Global Innovation

Global diversity as the source of future performance

Cosmopolitan ("Worldwise") Leaders
- Difference is even more attractive than similarity
- The world is a galaxy of pockets of specialized knowledge
- Able to institutionalize a de-nationalized “common ground”

Managing the “3-planes” (Sensing, “Magnets”)

A dispersed HQ

One Team-at-the-Top

Country A

Country B

Each location/unit has an original, unique contribution to a mutually dependent global business organization