The Globalization of the Automotive Industry: Examining the Recent Past, the Current State, and Future Trends

More of the same or radical changes? Insights from the structuring processes of new automotive industries

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• Our starting hypothesis in 2011 (Jullien & Pardi 2012 – IJATM):

    the fast growth of emerging markets 
    + 
    the stagnation of mature markets 
    + 
    the effect of the financial crisis on mature markets 
    + 
    the constraints / opportunities of the greening transition

a radical transformation of the geography, the supply, the organization and the geopolitics of the automotive industry

→ the interlinked dynamics of the structuring of new industries / and the restructuring of the old ones
WE WERE RIGHT ABOUT

• **The interdependency of the two processes:**

  – Value chains ↠ strengthening of mega-suppliers
  – R&D ↠ weakening of centralized R&D
  – Regionally relocations ↠ US – Mexico / EU 15 – CEE
WE WERE WRONG ABOUT

- Product policies
  - We expected:
    - “Fast” diffusion of electric vehicles
      - in emerging markets: unsustainability of ICE development, leapfrogging strategies, government’s programmes
      - in mature markets: “new green deals”, stringent regulations, states’ support
    - Cheaper / Smaller / Greener / “specific” cars
      - in emerging markets: heterogeneity of markets, urban congestion, affordability
      - in mature markets: scrapping schemes effect, faster diffusion of green vehicles, affordability, development of shared urban fleets...
WE WERE WRONG ABOUT

• Product policies
  – We got:
    • Slow confidential diffusion of electric vehicles + stagnation of hybrid ones
    • Further mass diffusion of traditional, multipurpose, big, heavy and expensive cars
WE WERE WRONG ABOUT

• Productive organizations:
  – We expected
    • Shift towards an emerging multi-domestic regionally innovative model of firm based on regional production networks:
      – In emerging markets: specific markets and competences, regional upgrading, role of local newcomers
      – In mature markets: weakening of domestic basis and centralized R&D, new specific green deals and/or mobility revolutions requiring cooperation with other companies in other sectors
WE WERE WRONG ABOUT

• Productive organizations:
  – We got
    • Reinforcement of the global, “imperial” centralized company (strong centralized R&D, regional adaptation, trickle-down diffusion of innovations, global production, global purchasing and global optimization)
      – Even in companies like Renault / GM / Fiat...
WE WERE WRONG ABOUT

• Industrial structure:
  – We expected
    • Changes in the hierarchy, in the power-structure, between OEMs and mega-suppliers, between traditional players and newcomers, between insiders and outsiders (IT software, mobility providers, etc.)
  – We got
    • Stability, despite crises, scandals and technological, green and mobility “revolutions”
WHERE WE ARE

• The “main” reasons (why we were wrong):
  1. Oil price
  2. Chinese market
  3. US market
  4. Carmakers’ “resistance” → the political co-construction of regulations
  5. Carmakers’ “hegemony” → the specific cost-structure of the automotive sector against the “disruptive” scenario

• Other reasons:
  – Battery technology (autonomy, performance, recycling, infrastructure, …)
  – Improvement of existent technology
Chinese market / industry

NDRC plans and orientations // the “go west” policy
VS resistance of regional governments

→ Realignment of their interests with multinational companies // reinforced by the intra-regional competition to attract FDI (Lüthje & Miao 2014)
→ Absence of coherent industrial policy (Smitka 2015).
→ Little/no support for slow-speed vehicles’ and domestic electric cars’ producers (Zejian 2015)
(Klier 2015):
From 2007 to 2009 Amended CAFE:
- Based on Footprint
- Trading credits

+ Cheap oil
+ (again) cheap credit fuelled by monetary policy (Jetin 2015)

= Most selling model (2015) →
Carmakers’ “resistance”

• As institutional entrepreneurs (Lawrence Suddaby - Handbook of Organization Studies, 2nd Edition 2006)
  – Maintaining institutions
    *Deterrence* – establishing barriers against institutional changes
    *Embedding & Routinizing* – infusing the normative foundations of an institution into the participants’ day to day routines and organizational practices

→ **Deterrence**: insights from the VW scandal:
  • Industry structure and technological portfolio define the way they are regulated
  • The compliance to the regulation is also largely defined by the industry (as in the pharmaceutical sector)

→ **Embedding**: The resilience and reproduction of the automobile system (the distribution network / the fleet on the roads / the owners-consumers)
Carmakers’ “hegemony”

Iphone 6s → 750 € (143 gr)  5244 € kg

Airbus A350 (800) → 270 m$ (178 tons)  1500 $ kg

Dell Inspiron (15) → 349€ (2,4 kg)  145 € kg

VW Golf (1,6 bluemotion) → 27 000 € (1200 kg)  22,5 € kg

Dacia Kwid → 3500 € (678 kg)  5 € kg
The internationalization of the industry and the structuring of new industries in emerging markets will follow the “global model” (the same everywhere with minor adaptations).

What’s next?

- Oil shocks
- Democratization / electrification of the Chinese market → industrial policies / market crisis-stagnation
- Transformation of the US market → fuel economy / regulation of market (gasoline price) / new crisis
- Weakening of carmakers’ resistance → more stringent and effective regulations / technological breakthrough?
- Weakening of carmakers’ hegemony → outside (new players?) / inside (new conception of control?)

The new multi-domestic company becomes the rule (associated with low-cost strategies, product heterogeneity and regional integration)
• 1. Embedding the automobile in societal contexts: new services, new uses, new integrated mobility systems (Bruce Belzowski, Bernard Jullien)

• 2. New technologies: sustainable mobility or new brave world (Giuseppe Giulio Calabrese, Yveline Lecler)

• 3. Production models and strategies, new locations and restructuring of value chains: between incremental and disruptive innovation (Holger Bungsche, Tommaso Pardi, Hua Wang, Jorge Carrillo-Viveros, Vincent Frigant, Thomas Klier)

• 4. Employment and labour relations: between segmentation and convergence (Antjie Blöcker, Holger Bungsche, Martin Krzywdzinski, Tommaso Pardi)

• 5. Industrial policies – national and regional clusters: between path dependency/inertia and structural change (Boleslaw Domanski, Bruno Jetin, Sigfrido Ramirez)