Focus on the Future
Automotive Research Conferences

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

Conference Summary

Tommaso Pardi: Director of Gerpisa
- Gerpisa’s hypothesis in 2011 included fast growth of emerging markets, stagnation of mature markets, the effect of the financial crisis on mature markets, and constraints and opportunities of the greening transition
- Wrong about the expectation that there would be fast diffusion of electric vehicles
- Wrong about the expectation that there would be cheaper, smaller, greener, and more specific cars
- In reality, there was a slow confidential diffusion of electric vehicles and stagnation of hybrid ones
- In reality, there was a further mass diffusion of traditional, multipurpose, heavy and expensive cars
- Wrong about the expectation that there would be a shift towards an emerging multi-domestic regionally innovative model of firm based on regional production networks
- In reality, there was a reinforcement of the global, imperial centralized company
- Wrong about the expectation of a change in the hierarchy, in the power-structure between OEMs and mega-suppliers, between traditional players and newcomers, between insiders and outsiders
- In reality, there was stability, despite crises, scandals, and technological green and mobility revolutions
- Reasons why Gerpisa’s expectations were wrong include oil price, Chinese market, US market, carmakers resistance, and carmakers hegemony

Alan Taub: Faculty member of Materials Science and Engineering at the University of Michigan
- GM’s research and development history includes central R&D organization for central motors, world’s first automotive research organization, and activities centralized in Michigan for more than 85 years
- Shifts in the R&D business model include the idea that innovation is enabled by diversity
- Changes include globalizing GM’s footprint, globalizing collaboration network, and rebalance resources from less than 5% external collaboration to greater than 25%
- Strategic partnership is a key technology area for GM
- Early-stage startups targeted automotive cleantech, infotainment, smart materials, other game-changing technologies, and value chain or business model
- Looking forward, the rate of technology development and implementation is accelerating and the value-add from electronics, controls, and software is increasing
Mike Jackson: Director of the North American Vehicle Production forecasting practice at IHS Automotive

- Market will reach 100 million light vehicle sales by the end of the decade
- Gradual increase of crude oil price is expected as weak global economy improves
- SUVs/CUVs are strong and outperforming the country average
- Increased industry pace places pressure on talent, resources, and infrastructure
- Cities expected to aggressively curb congestion
- City leaders and their teams are all focused on congestion control
- Economic vitality of a city depends first on assuredly fluid mobility
- Mega platforms enable distributed production growth
- There is a quest for platform efficiency
- NGA (New Global Architecture) is to support new front-wheel-drive platforms for B,C, and D-segment programs
- CMF (Common Module Family) is a cross-sector concept- Renault-Nissan describing the introduction of new architecture approach
- Advanced modularity allows for completely new combinations: four different track widths, five wheelbases, two cockpit and cowl solutions, two rear suspension architectures
- Nine of the Top-10 global platforms are in North America
- Developing markets push drives growths
- There is a focus to reduce platform counts and increase scale

Thomas Klier: Senior economist and research advisor in the economic research department at the Federal Reserve Bank of Chicago

- Light vehicle production is concentrated in Europe and North America
- Auto production is concentrated because spatial concentration of economic activity is common in manufacturing
- Underlying forces include the proximity to market and inputs and the transportation infrastructure
- Two factors for the emergency of the Auto Alley include Detroit carmakers abandon the branch assembly plant system and foreign-based carmakers enter as producers
- In 1990, Western Europe dominated the light vehicle production
- Economic space opened up in the early 90s due economic space doubled in size as over a dozen countries joined the EU
- Today’s production is much less dependent on the nation state model

Philippe Byosiere: Applied organizational psychologist

- Based on the hypothesis that “products are bought to reflect self-identity”, the major factors as motives for car use were instrumental, symbolic, and emotional
- Instrumental motives include that the car has only instrumental functions to move a person from point A to B
- Symbolic motives include that the car provides a person a status and prestige
- Emotional motives include the idea that there is a dream car that a person would like to buy
- Major differences in motives for car use among and between the four countries include gender, driver’s license, and living effects
- USA, Brazil, and Belgium all had emotional motives as the strongest
- Japan had instrumental motives as the strongest, then emotional, and lastly symbolic
United States, Belgium, and Brazil had emotional motives as the strongest, then instrumental, and lastly symbolic.
Symbolic motives for car use were the lowest in all 4 countries.
Possible reasons for not buying a car include high cost, available public transportation, smartphones, internet, technology, environmentalism, and available alternatives.
Young people in industrialized nations postpone or forfeit getting a driver’s license.
Decline of purchasing or delaying vehicle purchase as a result of the above.

Michael Smitka: Professor of Economics at Washington and Lee University
- For developing countries, there is a big push for industrialization with emphasis on politically visible goods such as autos.
- For developed countries, low-volume confronts the big market.
- For the Chinese market, entry includes 50:50 joint ventures with Germany, France, Japan, Korea, and the United States.
- Another way of entry is through pure domestic brands such as Geely, Great Wall, BYD, Chery, Rover, etc.
- Market growth in China is greater than in the United States or Europe.
- Suppliers come from European and North American export base.
- In China, there are no national champion domestics, no exports, and technology is improving but still scattered efforts.
- China’s slowdown is real.
- Prices are falling as well as margins.
- Investment plans remain strong.
- Achieving full capacity used to take quarters, not it takes years.

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