



HRD Policies and MNC subsidiaries: the case of Brazil

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Evolution of HRD policies in the Brazilian automotive industry

- 5 case studies

Company	Main product	Capital origin	Time in Brazil	Notes
firm1	Cars	Italy	More than 30 years	
firm2	Powertrain systems	Italy	10 years as an independent company	It is a spin-off from the Assembler
firm3	Stamped parts and bodies	Italy	11 years	
firm4	Suspension systems	Italy	More than 50 years	Once a Brazilian company, it was acquired by an MNC in the 1990s
firm5	Transmissions / engine parts	USA	More than 50 years	





Worker level

- Modifications in the production processes lead to an increase in the competences of workers
 - New products (“emergent market products”, “global products”)
 - Higher technological complexity
 - Emergence of R&D-related programmes





Worker level

- Since 1990s: companies in automotive industry adopt T System principles in production
 - Specially in carmakers and 1st/2nd tier suppliers
 - These principles call for higher qualification and competence levels





Worker level

- Degree of flexibility at work increases
 - Workers must “*do more and better*”
 - They must perform production tasks, but also quality, continuous improvement and maintenance tasks
 - Autonomy is still low





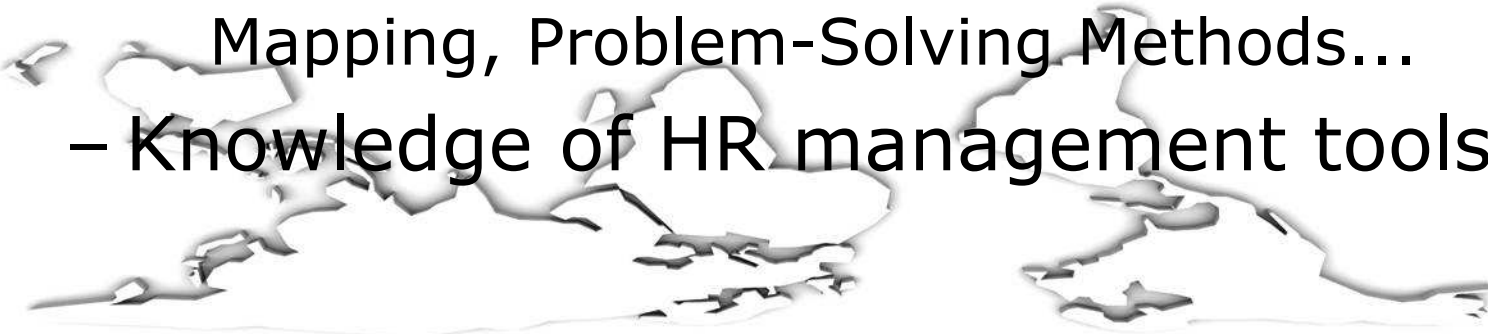
Worker level

- In all five cases:
 - Extensive training in TPS tools
 - Quality tools, problem-solving methods, autonomous maintenance
 - F: standardized tools all over the world
 - Education levels:
 - 1st tier: high school degree minimum
 - firm1: 12% of shop floor workers have college degree or are enrolled in college
 - Partnership with consultancy firms and training institutes



Technical and Supervisory

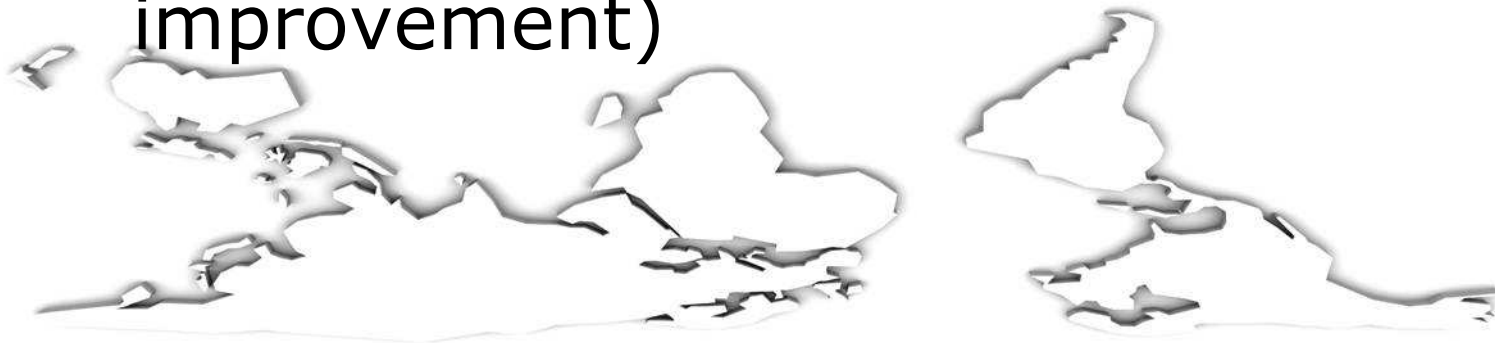
- TPS principles also change the profile of supervisors
 - Higher formal educational levels
 - firm1: higher education (Engineering or Business) minimum
 - Advanced knowledge of TPS tools and methods
 - Statistical Process Control, Value Stream Mapping, Problem-Solving Methods...
 - Knowledge of HR management tools





Technical and Supervisory

- Technical levels:
 - Formal education: secondary degree minimum + technical courses
 - Training in CAM, Quality tools, FMEA
- Increasing interaction of technicians and supervisors with Engineering
 - Specially via kaizen (continuous improvement)





Innovation and Engineering

- Brazilian subsidiaries are undergoing an increase in their engineering activities
- From product adaptation to local product development
 - Products aiming local/regional markets or “emergent countries”





Innovation and Engineering

- There is a growth tendency of local engineering
 - New laboratories inaugurated since the 2000s
 - The number of engineers and technicians is increasing
 - Their formal education and competences increase as well





Innovation and Engineering

- But: there is a shortage of engineers in Brazil
 - Ex. firm1: 40 vacant Engineering posts in August 2010
- After entering the companies, engineers undergo inside training
 - TPS, product development management
- Incentive for Mastering and PhD courses





Innovation and Engineering

- Innovation is conducted inside multidisciplinary teams
 - Different technical functions, product engineering, process engineering, manufacturing, quality, purchasing...
- Incentives to innovation
 - Innovation and patent goals
 - Prizes





Innovation and Engineering

- Innovation network:
 - Interaction with suppliers/ customers / headquarters; few partnerships with local universities / research institutes
 - Co-design with suppliers/customers is a common practice
 - The car assembler leads the co-design inside the chain





Management and Marketing

- Managers must possess higher education (Business, Economics or Engineering)
 - They must also have specific competences according to the company's strategy – innovation, quality





Management and Marketing

- Managers are encouraged to invest in innovation and marketing competences
 - But no systematic skill development programmes for these managers to manage global networks
- HR policies are usually corporative / global
- Marketing policies aim at local/regional market



Conclusion: competences for innovation

- Competences related to innovation/ new technologies have grown in pace with the increase of innovation-related activities
 - Shortage of qualified workers in all levels (concerning formal education, technical knowledge and experience)





Conclusion: competences for innovation

- Shop floor workers' competences increases as the production processes are modified
 - The adoption of TPS principles and techniques is a major driver in this sense
- In Engineering and Management levels, training in the headquarters is an important and spread practice





Conclusion: competences and local innovation

- Virtuous circle:
 - Effort to increase local competences due to changes in the technological profile of the unit
 - This increase enables the Brazilian subsidiary to demand greater technological content





Conclusion: Global Network?

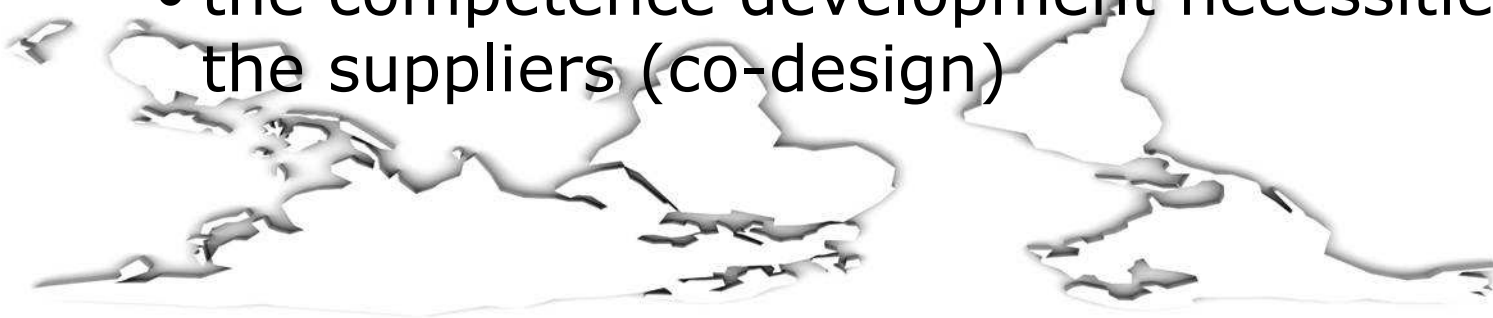
- A "global network" configuration can be seen in the competence-building process
 - The network involves the subsidiary, the headquarters and its suppliers and clients (multinational and local), universities and local training or qualification institutions.





Conclusion

- The car assembler drives the network
 - F headquarters /Brazilian unit determines which competences must be locally developed
 - Its local development necessities determine:
 - the partnerships with the education institutions and the universities.
 - the competence development necessities of the suppliers (co-design)





**Thanks for your
attention/questions**

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