



## Cleaner Production Initiatives in a Diesel Engines Factory

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### References

- [1] Delvecchio S, D'Elia G, Dalpiaz G (2015) On the use of cyclostationary indicators in IC engine quality control by cold tests. *Mechanical Systems and Signal Processing* 60, 208-228.
- [2] Fogaça P, Souza DL, Manéa F (2018) Comparison between Cold and Hot Test procedures in a company manufacturer of diesel engines. *Gestao & Produção* 25, 343-353.
- [3] Ante G, Facchini F, Mossa G, Digiesi S (2018) Developing a key performance indicators tree for lean and smart Production systems. *IFAC PapersOnLine*, 51(11), 13-18.
- [4] Facchini F, Mummolo G, Mossa G, Digiesi S, Boenzi F, Verriello R (2016) Minimizing the Carbon Footprint of Material Handling Equipment: Comparison of Electric and LPG Forklifts. *Journal of Industrial Engineering and Management*, 9(5), 1035-1046.
- [5] Oliveira Neto GC, Tucci HNP, Pinto LFR, Costa I, Leite RR (2016) Economic and Environmental Advantages of Rubber Recycling. *IFIP Advances in Information and Communication Technology*, v.1, 19-27.
- [6] Briem Ak, Betten T, Held M, Wehner D, Baumann M (2019) Environmental Sustainability in the Context of Mass Personalisation - Quantification of the Carbon Footprint with Life Cycle Assessment. *International Journal of Industrial Engineering and Management*, 10(2), 171-180.
- [7] Froehlich JW, Henger KA (2007) *Engine Technology International IN: Cold Testing Of IC Engines*. Dorking: Ukip Media & Events Ltd.
- [8] UNEP - United Nations Environment Program (1993) *Our Planet: Cleaner Production Makes Money*, 5. UNEP, Nairobi, p. 3.
- [9] Glavic P, Lukman R (2007) Review of sustainability terms and their definitions. *Journal of Cleaner Production*, 15, 1875-1885.
- [10] Alkaya E, Demirel GN (2013) Greening of production in metal processing industry through process modifications and improved management practices. *Resources, Conservation and Recycling*, 77 (1), 89-96.
- [11] Oliveira Neto GC, Pinto LFR (2019) Drivers to Promote Sustainability as Operational Strategy: Cross Content Analysis. *Journal of Environmental Accounting and Management*, 7 (4), 395-408.
- [12] Guimarães JCF, Severo EA, Vasconcelos CRM (2018) The influence of entrepreneurial, market, knowledge management orientations on cleaner production and the sustainable competitive advantage. *Journal of Cleaner Production*, 174, 1653-1663.
- [13] Godina R, Matias JCO, Azevedo SG (2016) Quality Improvement With Statistical Process Control in the Automotive Industry. *International Journal of Industrial Engineering and Management*, 7(1), 1-8.
- [14] Telukdarie A, Buckley C, Koefoed M (2006) The importance of assessment tools in promoting cleaner production in the metal finishing industry. *Journal of Cleaner Production*, 14 (18), 1612-1621.
- [15] Orsato RJ, Wells P (2007) U-turn: the rise and demise of the automotive industry. *Journal of Cleaner Production*, 15 (11/12), 994-1006.
- [16] Kurdve M, Zackrisson M, Wiktorsson M, Ulrika Harlin U (2014) Lean and green integration into production system models - experiences from Swedish industry. *Journal of Cleaner Production*, 85, 180-190.
- [17] Sans R, Ribo M, Alvarez D, Forné C, Puig MD, Puig F (1998) Minimization of water use and wastewater contaminant load. *Journal of Cleaner Production* 6 (3/4), 365-369.
- [18] Taylor B (2006) Encouraging industries to assess and implement cleaner production measures. *Journal of Cleaner Production*, 14, 601-609.
- [19] Khan Z (2008) Cleaner production: an economical option for ISO certification in developing countries. *Journal of Cleaner Production*, 16 (1), 22-27.
- [20] Lee KH (2012) Carbon accounting for supply chain management in the automobile industry. *Journal of Cleaner Production*, 36 (1), 83-93.

- [21] Govindan K, Azevedo SG, Carvalho H, Cruz-Machado V (2014) Impact of supply chain management practices on sustainability. *Journal of Cleaner Production*, 85, 212-225.
- [22] Shi J, Fan S, Wang Y, Cheng J (2019) A GHG emissions analysis method for product remanufacturing: A case study on a diesel engine. *Journal of Cleaner Production*, 206, 955-965.
- [23] Lopes Silva DA, Oliveira JA, Filleti RAP, Oliveira JFG, Silva EJ, Ometto AR (2018) Life Cycle Assessment in automotive sector: A case study for engine valves towards cleaner production. *Journal of Cleaner Production*, 184, 286-300.
- [24] Yin RK (2014) *Case study research: design and methods*. Sage, California.
- [25] Barrat M, Choi TY, Li M (2011) Qualitative case studies in operations management: Trends, research outcomes, and future research implications. *Journal of Operations Management* 29(4), 329-342.
- [26] Voss C, Tsiriktsis N, Frohlich M (2002) Case research in operations management. *International Journal of Operations & Production Management*, 22.
- [27] Oliveira Neto GC, Chaves LEC, Pinto LFR, Santana JCC, Amorim MPC, Rodrigues MJF (2019) Economic, Environmental and Social Benefits of Adoption of Pyrolysis Process of Tires: A Feasible and Ecofriendly Mode to Reduce the Impacts of Scrap Tires in Brazil. *Sustainability*, 11, 1-18.
- [28] Gitman LJ, Zutter CJ (2010) *Principles of Managerial Finance*. Prentice Hall, Boston.
- [29] Ritthof M, Rohn H, Liedtke C (2002) Calculating MIPS: Resource Productivity of Products and Services. *Wuppertal Spezial* 27.
- [30] Odum, E.P. 1998. *Ecologia Rio de Janeiro: Guanabara Koogan* (in Portuguese).
- [31] Federici M, Ulgiati S, Basosi R (2008) A thermodynamic, environmental and material flow analysis of the Italian highway and railway transport systems. *Energy*, 33, 760-775.
- [32] Oliveira Neto GC, Sousa WC (2014) Economic and Environmental Advantage Evaluation of the Reverse Logistic Implementation in the Supermarket Retail. *IFIP - Advances in information and Communication Technology*, 439(1), 197-204.
- [33] Spinelli D, Jez S, Pogni R, Basosi R (2013) Environmental and life cycle analysis of a biodiesel production line from sunflower in the Province of Siena (Italy). *Energy Policy*, 59, 492-506.
- [34] Oliveira Neto GC, Correia AJC, Schroeder, AM (2017) Economic and environmental assessment of recycling and reuse of electronic waste: Multiple case studies in Brazil and Switzerland. *Resources, Conservation & Recycling*, 127, 42-55.
- [35] Wuppertal Institute (2015) *Table of Material Intensity, Fuels, Transport Services and Food*. Wuppertal Institute, Dusseldorf.
- [36] De la Torre A, Barbas B, Sanz P, Navarro I, Artiñano B, Martínez MA (2018) Traditional and novel halogenated flame-retardants in urban ambient air: Gas-particle partitioning, size distribution and health implications. *Science of the Total Environment*, 630, 154-163.