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REFERENCES

- [1] Hicks C., McGovern T., Earl C.F. (2000). Supply chain management: a strategic issue in engineer to order manufacturing, *International Journal Production Economics*, Vol. 65, No. 2, pp. 179-190. DOI: [10.1016/S0925-5273\(99\)00026-2](https://doi.org/10.1016/S0925-5273(99)00026-2)
- [2] Haug A., Ladeby K., Edwards K. (2009). From engineer-to-order to mass customization, *Management Research News*, Vol. 32, No. 7, pp. 633-644. DOI: [10.1108/01409170910965233](https://doi.org/10.1108/01409170910965233)
- [3] Li Y., Roy U., Shin S., Lee Y.T. (2015). A “smart component” data model in PLM, *2015 IEEE International Conference on Big Data*, pp. 1388-1397. DOI: [10.1109/BigData.2015.7363899](https://doi.org/10.1109/BigData.2015.7363899)
- [4] Corallo A., Latino M.E., Lazoi M., Lettera S., Marra M., Verardi S. (2013). Defining product lifecycle management: a journey across features, definitions, and concepts, *International Scholarly Research Notices Industrial Engineering*, Vol. 2013. DOI: [10.1155/2013/170812](https://doi.org/10.1155/2013/170812)
- [5] Brodsky A., Shao G., Krishnamoorthy M., Narayanan A., Menascé D., Ak R. (2015). Analysis and optimization in smart manufacturing based on a reusable knowledge base for process performance models, *2015 IEEE International Conference on Big Data*, Santa Clara, CA, USA, pp. 1418-1427. DOI: [10.1109/BigData.2015.7363902](https://doi.org/10.1109/BigData.2015.7363902)
- [6] Roy U., Zhu B., Li Y., Zhang H., Yaman O. (2014). Mining big data in manufacturing: requirement analysis, tools and techniques, *ASME 2014 International Mechanical Engineering Congress and Exposition, Montreal*, pp. V011T14A047. DOI: [10.1115/IMECE2014-38822](https://doi.org/10.1115/IMECE2014-38822)
- [7] Brisley A. Oracle, Agile engineering collaboration overview, from <http://tcmoaug.communities.oaug.org/multisites/tcmoaug/media/Documents/Presentations/2007/2007-12-11/ABMPSL AppsUnplugged Engineering Collaboration n.pdf>, accessed on 21 Jan. 2017.
- [8] Groger C., Niedermann F., Schwarz H., Mitschang B. (2012). Supporting manufacturing design by analytics, *2012 IEEE 16th International Conference on Computer Supported Cooperative Work in Design*, Wuhan, China, pp. 793-799. DOI: [10.1109/CSCWD.2012.6221911](https://doi.org/10.1109/CSCWD.2012.6221911)
- [9] Elliott T. (2017). Business analytics and digital business, gartner BI: analytics moves to the core, from <http://timoelliott.com/blog/2013/02/gartnerbi-emea-2013-part-1-analytics-moves-to-the-core.html>, accessed on 21 Jan. 2017.
- [10] Dhar V. (2013). Data science and prediction, *Communications of the Association for Computing Machinery*, Vol. 56, No. 12, pp. 64-73. DOI: [10.1145/2500499](https://doi.org/10.1145/2500499)
- [11] Gearhart J.L., Adair K.L., Detry R.J., Durfee J.D., Jones K.A., Martin N. (2013). Comparison of open-source linear programming solvers, Sandia National Laboratories, Albuquerque, New Mexico, USA, Sandia Report SAND2013-8847.
- [12] Shearer C. (2000). The CRISP-DM model: the new blueprint for data mining, *Journal of Data Warehousing*, Vol. 5, No. 4, pp. 13-22.
- [13] Sharman D., Yassine A. (2004). Characterizing complex product architectures, *Systems Engineering*, Vol. 7, No. 1, pp. 35-60. DOI: [10.1002/sys.10056](https://doi.org/10.1002/sys.10056)
- [14] Eppinger S.D., Browning T.R. (2012). *Design Structure Matrix Methods and Applications*, The MIT Press, Cambridge, MA, USA.
- [15] Danilovic M., Browning T.R. (2007). Managing complex product development projects with design structure matrices and domain mapping matrices, *International Journal of Project Management*, Vol. 25, No. 3, pp. 300-314. DOI: [10.1016/j.ijproman.2006.11.003](https://doi.org/10.1016/j.ijproman.2006.11.003)
- [16] Pimmler T.U., Eppinger S.D. (1994). Integration analysis of product decompositions, *ASME Design Theory and Methodology Conference 1994*, Minneapolis, MN, USA, pp. 343-351. DOI: [10.1.1.207.8509](https://doi.org/10.1.1.207.8509)
- [17] Li Y., Roy U. (2015). Challenges in developing a computational platform to integrate data analytics with simulation-based optimization, *ASME 2015 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference*, Boston, MA, USA, pp. V01BT02A035. DOI: [10.1115/DETC2015-46410](https://doi.org/10.1115/DETC2015-46410)
- [18] Keyworth M. (2008). Identifying the optimum collections strategy through the use of champion challenger analytical tools, Experian, Bristol, UK, White Paper.
- [19] Möhring R.H., Schulz A.S., Stork F., Uetz M. (2003). Solving project scheduling problems by minimum cut computations, *Journal of Management Science*, Vol. 49, No. 3, pp. 330-350. DOI: [10.1145/1839379.1839419](https://doi.org/10.1145/1839379.1839419)