

List of relevant works – Lomonaco Jr. and Silva (2025)

Paper: Survey and classification of recommendations for evaluating visualization and usability quality criteria in Business Intelligence systems. (WiP/SIBGRAPI 2025)

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List of relevant works:

- 1- R. Magdalena, Y. Ruldeviyani, D. I. Sensuse, and C. Bernando, "Methods to Enhance the Utilization of Business Intelligence Dashboard by Integration of Evaluation and User Testing," in 2019 3rd International Conference on Informatics and Computational Sciences (ICICoS), 2019.
- 2- C. Jooste, J. Van Biljon, and J. Mentz, "Usability Evaluation for Business Intelligence Applications: A User Support Perspective," South African Computer Journal, vol. 53, pp. 1–13, Aug. 2014.
- 3- Khanal, "A Study on Usages of Visualization Tools to Remove Biases in Decision Making," Master's thesis, Tribhuvan University, Institute of Engineering, 2023.
- 4- Even, Y. Kolodner, and R. Varshavsky, "Designing Business- Intelligence Tools with Value-Driven Recommendations," in Lecture Notes in Computer Science. Springer, 2010, pp. 286–301.
- 5- T. Gunadham, "A Study of Business Intelligence Tools from Users' Perspectives," Interdisciplinary Research Review, vol. 18, no. 3, pp. 8–14, Jun. 2023.
- 6- D. Bacic and A. Fadlalla, "Business Information Visualization Intellectual Contributions: An Integrative Framework of Visualization Capabilities and Dimensions of Visual Intelligence," Decision Support Systems, vol. 89, pp. 77–86, 2016.
- 7- M. Durra and G. Al-Naymat, "Self-Service Business Intelligence: Meeting User Needs in a Data-Rich World," in 2023 24th International Arab Conference on Information Technology (ACIT), 2023.

- 8- Hussain, S. Diamond, S. Szigeti, M. A. Gordon, F. Yuan, M. Diep, and L.-X. Dong, "HCI Design Principles and Visual Analytics for Media Analytics Platform," in HCI International 2019 - Posters, ser. Communications in Computer and Information Science, C. Stephanidis, Ed. Springer, 2019, vol. 1034, pp. 28–35.
- 9- Landutama, J. F., & Chowanda, A. (2023). Applied design thinking for Kimball lifecycle to improve business intelligence dashboard usability. *International Journal of Innovative Computing, Information and Control (ICIC)*, 19(4), 1139-1152. doi: 10.24507/ijic.19.04.1139.
- 10- Dudycz, H. (2010). Visualization methods in business intelligence systems – An overview. *RESEARCH PAPERS OF WROCLAW UNIVERSITY OF ECONOMICS* No. 104, *Business Informatics* 16, 1-18.
- 11- Zheng, J. G. (2017). Data Visualization in Business Intelligence. In J. M. Munoz (Ed.), *Global Business Intelligence* (1st ed., pp. 15-31). Routledge. ISBN: 9781315471136.
- 12- Zhang, H. (2022). An evaluation framework for business intelligence visualization [Master's thesis, North Dakota State University of Agriculture and Applied Science]. Fargo, ND.
- 13- Chang, L., & Huang, W. (2016). A review and future direction of agile, business intelligence, analytics and data science. *International Journal of Information Management*, 36(5), 700-710. doi: 10.1016/j.ijinfomgt.2016.04.013.
- 14- Liu, S., Zhang, H., Yang, Z., Kong, J., Zhang, L., & Gao, C. (2023). UXBIV: An evaluation framework for business intelligence visualization. *IEEE*
- 15- Kullander, P. T. (2019). Information visualization as an interactive business intelligence tool for improved management and self-assessment of financial brokers in private banking [Master's thesis, KTH Royal Institute of Technology].
- 16- Dowding, D., & Merrill, J. A. (2018). The Development of Heuristics for Evaluation of Dashboard Visualizations. *Applied Clinical Informatics*, 9(03), 511-518. doi: 10.1055/s-0038-1666842.
- 17- Bobylev, T. (2023). Dashboard for data-driven decision support in small and medium enterprises: a web-based approach [Bachelor's thesis, Luleå University of Technology]. Department of Computer Science, Electrical and Space Engineering.

- 18- Průcha, P., & Kašparová, P. (2022). Use of Emotion in Designing BI Dashboards. Slovenian Society INFORMATIKA – Section for Operational Research. ISBN 978-961-6165-57-0.
- 19- Setlur, V., Correll, M., Satyanarayan, A., & Tory, M. (2024). Heuristics for supporting cooperative dashboard design. *IEEE Transactions on Visualization and Computer Graphics*, 30(1), 370-380. doi: 10.1109/TVCG.2023.3327158.
- 20- Nogueira, R. M. (2022). Improving Data Visualization Reports for a Financial Services Company [Master's dissertation, Faculdade de Engenharia da Universidade do Porto].
- 21- Chiasera, A., Creazzi, E., Brandi, M., Baldessarini, I., Vispi, C. (2018). Continuous Improvement, Business Intelligence and User Experience for Health Care Quality. In: Krogstie, J., Reijers, H. (eds) *Advanced Information Systems Engineering. CAiSE 2018. Lecture Notes in Computer Science()*, vol 10816. Springer, Cham. doi: 10.1007/978-3-319-91563-0_31
- 22- Calitz, A. P., Bosire, S., & Lane, E. (2012). Usability Evaluations of ERP Business Intelligence Dashboards. Paper presented at the International Business Conference (IBC), Kenya.
- 23- Hassanein, M. S., Elfar, M. H., & Zaied, A. N. H. (2022). Water resources management framework to improve decision-making based on business intelligence. *Journal of Southwest Jiaotong University*, 57(4), 39-48. doi: 10.35741/issn.0258-2724.57.4.39.
- 24- Batziakoudi, K., Griva, A., Karagiannaki, A., & Pramataris, K. (2020). Human computer interaction in business analytics: The case of a retail analytics platform. [Paper presented at the European Conference on Information Systems (ECIS), Athens, Greece].
- 25- Wale-Kolade, A. Y., Nielsen, P. A., & Päiväranta, T. (2014). Integrating Usability Practices into Agile Development: A Case Study. *Information Systems Development : Transforming Organisations and Society through Information Systems (ISD2014 Proceedings)*, 337–347.
- 26- Hyvönen, E. (2024). Improved visualisations for NAPCON Improve dashboards: Improving the usability and user experience of performance monitoring dashboards [Master's thesis, Lappeenranta-Lahti University of Technology LUT]. LUT School of Engineering Science, Department of Software Engineering.
- 27- Santoro, Fernando de Oliveira; Spiegel, Thaís; Silva Júnior, Dêrcio Santiago da. O uso de modelos e técnicas de UX na criação de dashboards de BI: uma revisão sistemática da literatura. *Lumen et Virtus*, v. 15, n. 42, p. 7017–7035, nov. 2024.

- 28- Muppidi, Apoorva; Hashim, Ahmad Sobri; Hasan, Mohd Hilmi; Muazu, Aminu Aminu. A Conceptual UX Model for Designing and Developing the Business Intelligence Dashboards. Journal of Computer Science, 2023.