

KraljicMatrix: An R package for implementing the Kraljic Matrix to strategically analyze a firm's purchasing portfolio

Bradley C. Boehmke¹, Robert T. Montgomery², Jeffrey A. Ogden¹, and Jason K. Freels¹

DOI: [10.21105/joss.00170](https://doi.org/10.21105/joss.00170)

¹ Air Force Institute of Technology ² Air Force Academy

Software

- [Review](#) ↗
- [Repository](#) ↗
- [Archive](#) ↗

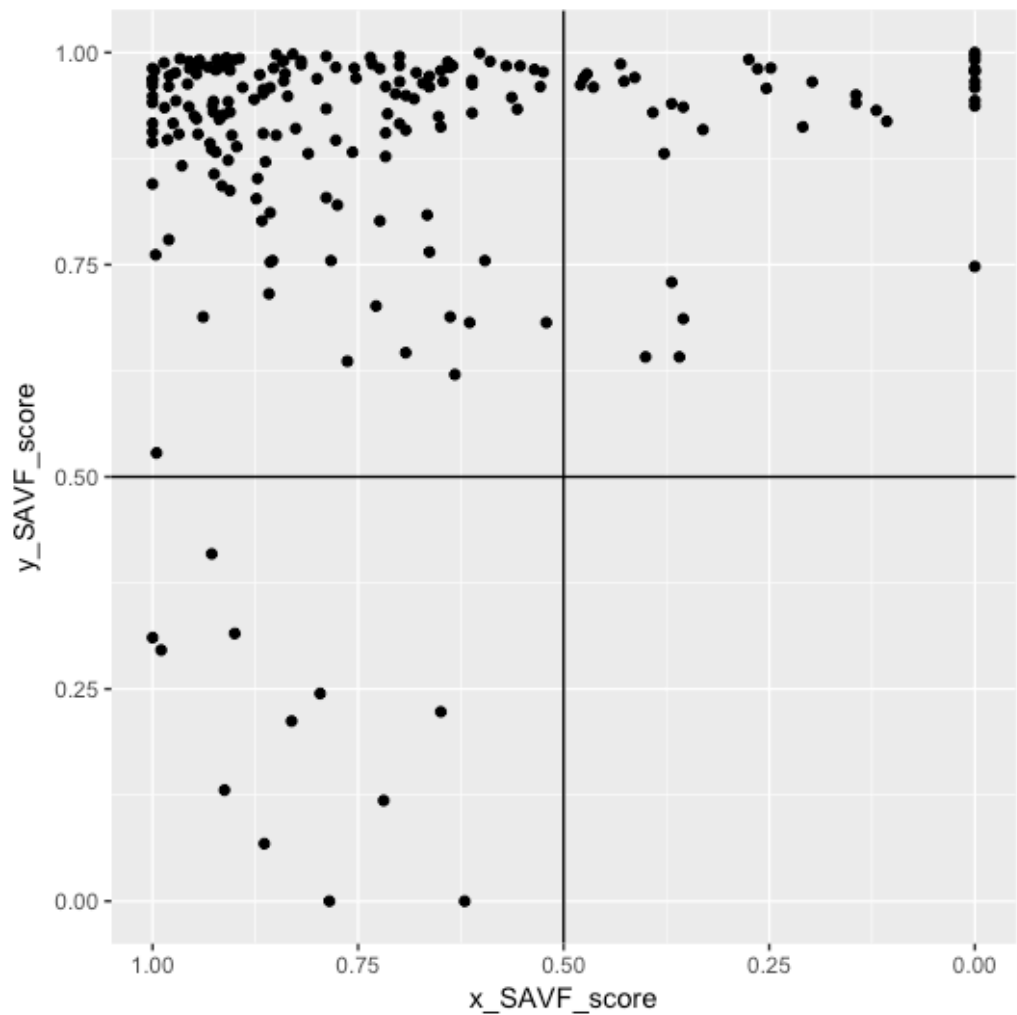
Licence

Authors of JOSS papers retain copyright and release the work under a Creative Commons Attribution 4.0 International License ([CC-BY](#)).

Summary

`KraljicMatrix` is an R package (R Core Team (2016)) that implements a quantified approach to the Kraljic Matrix (Kraljic (1983)) introduced by Montgomery et al. (Montgomery, Ogden, and Boehmke (2017)). It allows a firm to strategically analyze its purchasing portfolio with single- and multi-attribute value analysis to measure purchasing characteristics. In addition `KraljicMatrix` also provides useful functions to identify the preferred single utility slope based on subject matter expert inputs, assign and place purchases within the Kraljic Matrix, and perform sensitivity analysis.

The following is an example visualization made using `KraljicMatrix`'s analysis tools.



References

- Kraljic, Peter. 1983. “Purchasing Must Become Supply Management.” *Harvard Business Review* 61 (5): 109–17. <https://hbr.org/1983/09/purchasing-must-become-supply-management>.
- Montgomery, Robert T., Jeffrey A. Ogden, and Bradley C. Boehmke. 2017. “A Quantified Kraljic Portfolio Matrix: Using Decision Analysis for Strategic Purchasing.” *Journal of Purchasing and Supply Management* forthcoming.
- R Core Team. 2016. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.