

Peculiarities of modelling of the enterprise investment attractiveness in the conditions of multicollinearity of predictors

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Abstract

© Medwell Journals, 2017. The study presents an approach to assess the enterprise investment attractiveness based on the econometric modeling of return on assets. The researchers underline the key role of financial indicators in assessing investment attractiveness and propose a system of financial ratios of the enterprise-predictors of return on assets. In the conditions of collinearity of prognostic factors, the researchers offer to implement ridge regression which enables to obtain better prognostic characteristics to preserve reliability and informational value of the modelling. The researchers suggest tools to analyze how predictors of return on assets contribute to the assessment of investment attractiveness whose quality was tested using standard Fisher and Student tests and the standard error. The results of the empirical evaluations carried out using the Gretl Software confirmed their feasibility for potential investors, shareholders and owners in managing the use of capital effectively.

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Keywords

Evaluation, Investment attractiveness, Kazan, Principal components regression, Return on assets, Russia

References

- [1] Adkins, L.C., 2014. Using Gretl for Principles of Econometrics. 4th Edn., Oklahoma State University Publisher, Oklahoma City, Oklahoma
- [2] Altman, E.I., 1968. Financial ratios, discriminant analysis and prediction of corporate bankruptcy. *J. Finance*, 23: 589-609
- [3] Berestetsky, G.L. and E.S. Sapotnitsky, 2004. Facts and forecasts. *Cellulose Pap. Cardboard*, 7: 10-15
- [4] Chandrasekhar, C.K., H. Bagyalakshmi and M.R. Srinivasan, 2016. Partial ridge regression under multicollinearity. *J. Appl. Stat.*, 43: 2462-2473
- [5] Cokins, G., 2009. *Performance Management: Integrating Strategy Execution, Methodologies, Risk and Analytics*. John Wiley & Sons, Hoboken, New Jersey, USA., Pages: 271
- [6] Garcia, J., S. Roman and G. Catalina, 2016. Standardization of variables and collinearity diagnostic in ridge regression. *Intl. Stat. Rev.*, 84: 245-266
- [7] Gomez, R.S., J.G. Perez, M.D.M.L. Martin and C.G. Garcia, 2016. Collinearity diagnostic applied in ridge estimation through the variance inflation factor. *J. Appl. Stat.*, 43: 1831-1849
- [8] Hill, R.C., W.E. Griffiths and G.C. Lim, 2012. *Principles of Econometrics, International Student Version*. 4th Edn., John Wiley and Sons, Singapore, ISBN: 978-0-470-87372-4, Pages: 792

- [9] Kapler, J.K., 2000. Measuring the economic rate of return on assets. *Rev. Ind. Organization*, 17: 457-463
- [10] Khasanova, A.S., G.M. Kvon, N.M. Yakupova and F.F. Khamidullin, 2015. Assessment of efficiency of capital investment project implementation of resource-saving technology for the real sector of the economy in Tatarstan republic. *Mediterr. J. Social Sci.*, 6: 155-161
- [11] Khavin, D.V., 2004. Investment appeal of industrial objects of the real estate as the factor of effective restructuring of the enterprises. *Mounting Spec. Works Constr.*, 9: 17-18
- [12] Samerkhanova, A.A. and E.I. Kadochnikova, 2015. Econometric analysis of the mortgage loans dependence on per capita income. *Asian Social Sci.*, 11: 55-59
- [13] Walsh, C., 2011. *Key Management Ratios: The 100+ Ratios Every Manager Needs to Know*. Pearson Education, London, England, ISBN:9780273761570, Pages: 393
- [14] Wooldridge, J.M., 2009. *Introductory Econometrics: A Modern Approach*. 4th Edn., South-Western Cengage Learning Publisher, Boston, Massachusetts, ISBN:9780324585483, Pages: 865