TIMELINESS REDUCTION ON INDUSTRIAL TURNOVER INDEX BASED ON MACHINE LEARNING ALGORITHMS

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Abstract

The modernisation of the production of official statistics should make use not only of new data sources but also of novel statistical methods applied to traditional survey and administrative data. This improves the traditional quality standards. Here we present an application of statistical learning algorithms to improve the timeliness under a controlled compromise of accuracy of the Spanish Industrial Turnover Index (ITI). The methodology has been developed based on a modular and standardized approach that could be easily extended to other surveys. Our advanced index allows us to predict the ITI 30 days before publication with a median error of 0.5 points over the period Mar2016-Apr21, in an index with large oscillations. The results are promising and support the idea of the use of these techniques in improving the quality dimension of timeliness while accuracy is kept under control.