Application of Mixed Effects Models on Delaying Payments: Analysis of EU Companies

Isaac Kwame Essien Obeng[1]

Abstract

We analyze the pattern of delaying payments of accounts receivable of companies in European Union member countries by controlling for time specific effects and selected explanatory variables. The data retrieved from AMADEUS covers the period of 2005 to 2014. We employ the mixed effects models to analyze firm heterogeneity in terms of delaying payments by considering both observed and unobserved random effects. The results show high variability of response variable, late payments over period covering the analysis and across individual companies. The expected signs were obtained for selected explanatory variables, with positive effects of the return on assets, turnover, current ratio and gearing ratio variables on late payments. But, the results show negative effects of companies' total assets on delaying payments as an evident of improvements in delaying payments associated with the speed of collection of receivables. The findings suggest delaying payments are not only much delayed immediately after the financial crisis and less delayed as the years gone by, but also variability is high across individual companies and across EU member countries.

Keywords: Delaying Payments, Late Payments, Mixed Effects Models

JEL Codes: M21

1 **Corresponding Author** Mendel University, Brno, Czech Republic, xobeng@mendelu.cz