Essays on quality evaluation and bidding behavior in public procurement auctions

av

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Akademisk avhandling

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Abstract


In this dissertation, I investigate how different aspects of the procurement process and evaluation affect bidding behavior.

In essay 1, we attempt to map public procurements in Sweden by gathering a representative sample of procurements. We find that framework agreements and multiple-contract procurements represent a very large share of total government spending. The total value procured by government authorities, municipalities and counties accounts to 215 BSEK yearly, which we believe is an underestimate due to data issues.

Essay 2 suggests a simple method for estimating bidding costs in public procurement, and are empirically estimated to be approximately 2 percent of the procurement value using a comprehensive dataset and approximately 0.5 percent for a more homogeneous road re-pavement dataset. Our method provides reasonable estimates with, compared to other methods, relatively low data requirements.

Essay 3 investigates the effect of quality evaluation on small and medium-sized enterprises (SMEs). Contrary to common belief, SMEs’ participation does not increase when evaluating quality, and their probability to win procurements decreases compared with that of large firms.

In essay 4, the bidders’ decision to apply for a procurement review “appeal” is investigated. Contrary to procurers’ beliefs, evaluating quality is found not to have any statistically significant effect on the probability of appeals. Instead, I empirically confirm theoretical prediction of the 1st runner-up’s decision to claim the evaluation to be redone, as well as free-riding in appealing.

In essay 5, we test whether spatial econometrics can be used to test for collusion in procurement data. We apply this method on a known cartel and test during and after the period the cartel was active. Our estimates support the proposition that spatial econometrics can be used to test for collusive behavior.

Keywords: public procurement, quality evaluation, bidding behavior, cartels, SMEs, transaction cost, litigation, spatial econometrics

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