

## OPTIMAL DURABILITY VS. PLANNED OBSOLESCENCE IN THE TEXTBOOK MARKET

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**Introduction.** In various durable goods markets, producers have been often accused of engaging in planned obsolescence. This is the practice of reducing product durability or otherwise manipulating the secondary market in order to reduce or eliminate the effect of the presence of the used good on the new good market. In this literature, of all durable goods, has been often argued that the US textbook market exhibits this feature, however recent works have questioned this finding. I model this market in order to generate empirical predictions and intuitions that shed light on whether and why this might happen in this market.

**Materials and methods.** In this paper, we build a two period theoretical model of the textbook market that nests the three main theoretical frameworks of durability choice. In all models, the publisher makes its revision decision based on the proportion of used books that remain in the market in the later periods.

We examine how the stock of used textbooks affects the revision decision and pricing of new books for each of the three variants; optimal durability, quality differences, and time inconsistency. We also examine how durability reductions and leasing affect profitability in all three variants.

**Results and discussion.** Comparing our results to the available empirical literature, I find that the model that most consistently fits the data is where publishers can fully commit and used and new books are imperfect substitutes.

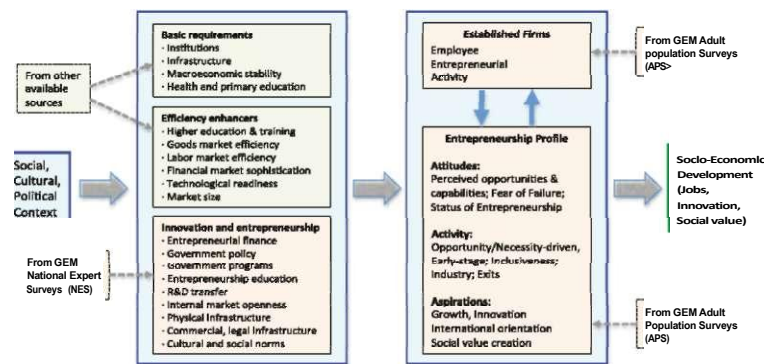


Figure 1: GEM conceptual model

**Conclusions.** Interfering in the secondary market may be profitable for textbook publishers. This interference does not stem from an inability for the publisher to commit, but it is an attempt to alter the quality/price profile of the textbook offering.

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### References.

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