Option Package Bundling^{*}

TAKANORI ADACHI Tokyo Institute of Technology

TAKESHI EBINA Tokyo Institute of Technology Makoto Hanazono Nagoya University

December, 2008

Abstract

Option package bundling problem arises if there is an optional good, which is valuable only if a certain (non-optional) good is consumed together. A firm that sells both types of goods then faces the decision of whether to sell all goods only in a package (pure bundling), or to sell goods both with or without optional goods, leaving the choice of consuming them together to buyers (mixed bundling). We study a model of a monopolist's option package bundling problem, in which the monopolist produces two types of indivisible goods, regular (i.e., non-optional) and optional ones, with no marginal costs, and buyers' valuations are independently and uniformly distributed. We derive the optimal bundling prices, and verify that mixed bundling outperforms pure bundling if and only if the range of optional good valuation exceeds a certain size. This suggests an interesting testable implication: the smaller the diversity of the valuation of an optional good, the more likely that the monopolist adopts pure bundling.

^{*}We are grateful to Ayako Suzuki for helpful discussions. Any remaining errors are our own. Correspondences: Graduate School of Decision Science and Technology, Tokyo Institute of Technology, O-okayama 2-12-1 W9-103, Meguro, Tokyo 152-8552, Japan (Adachi and Ebina). School of Economics, Nagoya University, Furo-cho, Chikusa, Nagoya 464-8601, Japan (Hanazono). E-mail addresses: adachi.t.ac@m.titech.ac.jp, ebinat@soc.titech.ac.jp, hanazono@soec.nagoya-u.ac.jp