

An Empirical Analysis of Digital Music Bundling Strategies

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Abstract

Digital markets have made pricing a more complex problem for record labels by introducing agency pricing (where labels set their own prices) and unbundling single song sales from album sales. However, in spite of the increased importance of single and album pricing, there have been almost no empirical studies of this phenomenon. In this paper, we use data from a unique event where record labels were allowed to increase prices from \$0.99 to \$1.29 on the iTunes music store. We analyze the impact of this price change by developing a structural model of the pricing problem in digital music markets where both single songs and albums are available to consumers; and then applying this model to a rich dataset obtained from a major record label. We take advantage of a quasi-random price experiment conducted by the label to identify consumers' price sensitivity to album and single price changes, and then recover the average value distribution of songs in a typical album. We then use the estimated parameters to simulate the substitution pattern between singles and albums.

Our simulations show that tiered pricing significantly increases revenue for record companies relative to the uniform pricing policies traditionally preferred by digital marketplaces like iTunes. In addition, our simulations provide detailed pricing guidance for labels seeking to optimize the prices of songs and albums for both recent releases and catalog titles.

Bio

Rahul Telang is the Professor of Information Systems at Heinz College, Carnegie Mellon University. He is also the co-director of Digital Media Research Center at the Heinz College.

Professor Telang's research focuses on studying the incentives of content provider, content distributors as well public policy challenges in the digital media industry. His second area of work is on economics of information security and privacy. He was the recipient of NSF CAREER award for his work on economics of information security. Dr. Telang has published extensively in many top journals like Management Science, Marketing Science, Information Systems Research, MIS Quarterly, and Journal of Marketing Research. He is on the editorial board of Management Science and ISR.