How Do Usage and Payment Behavior Interact in Rent-to-Own Business Models? Evidence from Developing Economies

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Abstract

The diffusion of technological innovations in developing economies has been facilitated by the use of rent-to-own business models, which give flexibility to customers by allowing them to make incremental payments over time. Understanding the implications of this flexibility is a fundamental problem for an increasing number of firms operating in these markets. In this paper, we empirically analyze how consumer usage and payment behaviors interact in an application of rent-to-own to the distribution of solar lamps in developing countries. By exploiting the longitudinal variation in the data—and hence accounting for intrinsic differences between customers—the analysis led to three main insights. First, higher usage rates lowered the probability of late payments by customers. Our characterization of this *engagement effect* enhances existing knowledge of the drivers of payment behavior in these environments. Second, customers often "bundled" payments, making advance payments for future product access. We showed that bundling the initial payment led to lower usage rates (*bundling effect*), suggesting that firms may not benefit from advance payments upfront, and that they should closely track usage patterns from these customers. Finally, we showed that first-period usage information can improve the accuracy of predictive models of default and that observing usage rates in subsequent periods does not lead to further improvements. Overall, the analysis highlights the importance for firms of jointly tracking and analyzing payment and usage behavior by customers, particularly in initial stages of the adoption process.