

Sophisticated Consumers with Inertia: Long-Term Implications from a Large-Scale Field Experiment

Based on BFI Working Paper 2022-44, “[Sophisticated Consumers with Inertia: Long-Term Implications from a Large-Scale Field Experiment](#),” by Klaus Miller, HEC Paris; Navdeep S. Sahni, Stanford University; and Avner Strulov-Shlain, Chicago Booth

While consumers greatly underestimate inertia’s effects on their own behavior, many recognize and account for their own inertia (or tendency to remain inactive).

You know those recurring billing notices that you get for subscription music and movie services, the ones that never go down in price but often increase? How many times have you cancelled one of those services and signed up for a cheaper alternative? Or cancelled an existing subscription and then re-upped at a lower introductory rate? Like most people, you probably rarely take these actions. Such is inertia, the tendency of an individual to take no action and stay in the same state as before.

Far from trivial, inertia has consequences for firms and policymakers trying to assess the functioning of markets. For example, consumer inertia incentivizes firms to offer choices that are better in the short run

but worse in the long run. Further, firms can design their products to increase inertia. It matters, in other words, if consumers are aware of their inertia and, if so, whether and how they act on it.

To investigate this phenomenon, the authors assess how inertia affects consumer decisions regarding digital newspaper subscription contracts. What is the degree of inertia in consumer subscription choices? What is the degree of awareness to future inertia and how does it affect subscription choices? How do these differ between consumers? And what are the effects of these forces on firm incentives and outcomes?

Figure 1 • Effect of Auto-renewal Relative to Auto-cancel Contracts on Overall Subscription Behavior



Notes: The figures plot the estimated average intent-to-treat effect of offering an Auto-renewal relative to an Auto-cancel contract on consumer subscription behavior. Specifically, we plot the estimated coefficient B_1 from equation (1) for various time periods. “Pre” refers to time before the experiment started; “promo” is during the promotional time period, the last bucket “entire post promo” aggregates across all post promo time periods. Percentages next to the effect size compare the effect to the mean level of the omitted group. The error bars show 95% confidence intervals. Standard errors are clustered at the individual reader level.

To answer these questions and, importantly, to consider consumers' state of mind before they make a choice, the authors run a large-scale field experiment in which they randomize the terms of the subscription offers received by 2.1 million readers who hit the digital paywall of a large European daily newspaper. Consumers are offered subscriptions that (1) either automatically renews, by default, into a paid subscription for those who take the promotion, unless they explicitly cancel it or does not automatically renew but requires the promo taker to click to enroll into a paid subscription; (2) has a promotional trial period for either 4 weeks, or 2 weeks; or (3) has a promotional price of either €0, or €0.99. The authors track these consumers over two years.

By varying contract renewal terms along with other benefits, the authors can quantify the inertia consumers anticipate from taking up the subscription before they take it. Consumers' subsequent subscription behavior enables the authors to quantify the actual inertia they experience, and they find the following:

- Consumers are less likely to take a future-inertia-exploiting contract—24% fewer readers take up any newspaper subscription during the promotional period when offered an auto-renewal offer, relative to an auto-cancel offer.
- Consumers are more inert than they anticipate—the subscription-rate (the proportion of days a reader subscribes to the newspaper) is higher by 20% among those who received the auto-renewal offer, relative to the auto-cancel one for about four months post promotion.

- Offering inertia-inducing contracts discourages readers from engaging with the newspaper—readers who were assigned an auto-renewal offer are 9% less likely to become paid subscribers at any time in the two years after the promotion, relative to auto-cancel.

These findings reveal that most consumers are not naive or myopic about the future implications of the subscription contract terms. While some do take-up the auto-renewal contract and exhibit inertia, more than a third recognize and avoid a contract that might “exploit” them in the future, and another third are not inert and do not become high-paying subscribers. Only one-tenth of auto-renewal subscribers remain subscribed for more than three months and wouldn't have under an auto-cancel contract.

Businesses and regulators take note. While many companies try to increase profits by dissuading consumers from quitting services, this novel work reveals that such practices, even if mild, can backfire for two reasons. First, exploiting future inertia reduces initial take-up; and second, exploiting future inertia pushes new consumers to disengage from the company completely.

Bottom line: In the long term, consumer behavior disincentivizes auto-renewal offers, even though auto-renewal leads to higher firm revenue in the medium term because of inertial subscribers.

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