The Effects of Framing Subscription Benefits As Price Discounts Or Time Bonuses on Time Preferences

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When consumers make choices about subscriptions, they face an intertemporal decision. This paper examines how consumers' time preferences change with changes in subscriptions' benefits framing. Consumers prefer contracts offering price discounts to those offering bonus time for short contracts but prefer the reverse for contracts of longer length.

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EXTENDED ABSTRACT

When consumers make choices about subscriptions, they face an intertemporal decision and have to make choices about a stream of consumption and payments over time. The current paper examines how consumers' time preferences change with changes in the framing of subscriptions' benefits. Subscriptions are attractive to companies because they allow for security in planning and enhance customers' loyalty. Therefore, to induce consumers to choose longer-term, subscriptions, firms might either offer a price discount (e.g., "save 25% off the monthly price when you sign up for a year") —lowering the per-time-unit cost for longer contracts—or offer a bonus time (e.g., "pay for 9 months and get 3 months free") —giving consumers an additional subscription time "for free" rather than lowering the unit price. In this paper, we investigate the different effects of price discounts and bonus time promotions on people's preferences for longer-term subscriptions.

Our research builds on and contributes to the literature on intertemporal discounting (Frederick et al. 2002; Read 2004; Zaubermann et al 2009) and specifically, the literature on framing effects in intertemporal decisions (Loewenstein 1988; Loewenstein and Prelec 1992).

Our main contribution results from studying time preferences in the context of subscriptions and from documenting a new kind of preference reversal, where consumers prefer longer-term (vs. short-term) subscriptions when presented with a bonus time (vs. price discount) promotion.

To preliminary investigate the different impact that promotions' framing may have on consumers' choice for subscriptions and to have a first impression of actual purchase behaviors we conducted a 2x2 (2-months vs. 6-months subscriptions/ bonus time vs. price discount) online controlled experiment (Kohavi et al. 2009) with a major Italian news publisher offering digital subscriptions to their daily newspaper. Randomized allocation of respondents to the 4 conditions ensured external validity of the study. Each condition (in form of a different digital landing page) has reached about 2.5 million impressions and two-sample tests of proportions revealed that in the short-term condition, price discount promotions increase the likelihood of a sale relative to bonus time promotions (.578 vs. .422, z= 2.303, p= .021) while in the long-term condition we observe a preference reversal as bonus time promotions increase the likelihood of a sale relative to price discount promotions (.546 vs. .454, z=-1.828, p= .068).

To better investigate this behavioral phenomenon, we conducted 6 survey-based experimental studies that represent data collected from more than 1,500 participants on different platforms, in different countries and in different languages. We focus on different theoretical constructs varying parameters that might be expected to change the preference reversal pattern that we have found. These include: time of payment (monthly installments vs. upfront lump sum), time at which the free months are offered (beginning vs. end of subscription), size of the base subscription rate (magnitude effect of the monthly fee of 10$ vs. 50$ or customization of this value via adaptive surveys), type of service offered (Internet vs. mobile phone) and whether the monthly price reduction is framed as discount or rebate. Results reveal that consumers prefer price discounts to bonus time up to contract durations of approximately 11 months and prefer bonus time over price discounts thereafter. Furthermore, the preference reversal is stable with regard to different methods for the elicitation of individual discount rates (matching-based measures vs. choice-based measures), is not significantly affected by individuals risk aversion and can be found for subjects with lower as well as with higher numeracy. However, teaching the subjects how to translate the overall cost of the bonus time frame into the price discount frame through calculation tasks or added information, leads to elimination of this preference reversal and to stable preferences for offers framed as price discount.

In conclusion, this paper provides empirical evidence of a new impact of promotions' framing on time preferences with implications for optimal contract promotion design. From a managerial perspective our findings suggest that, since monthly discount rates are lower under the *Price Discount* condition for contract durations up to a certain period (of approximately 11 months) and the opposite is true for longer contract durations, firms should offer short-term contract promotions with price discounts and long-term promotions with bonus time.

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