

Case study: Behavioral Insights- Lebanon Electricity

Nudging citizens to faster payment of electricity bills in Lebanon*

Executive Summary: *To speed up household payment of electricity bills, a randomized controlled trial conducted on 429 households, using hassle factor, social norm and national pride nudges, with all 3 outperforming control group, with 4%, 13% and 15% improvement respectively, proving cost-effective and small changes in context through behaviorally-driven slips can increase probability of paying bills.*

Challenge and Nudge Solution: Procrastination is common problem people encounter in different daily situations such as payment of bills. Triggering certain contextual cues can help overcome status-quo/ inertia bias as well as reduce procrastination. Salience, loss aversion, social norm, priming and ego are behavioral tools that can be used to change people's behavior and increase payment of bills.

Control Group: Bills for previous period to be collected within 40 days of their issuance date. Collectors required to visit their assigned subscribers, a maximum of two times, but end up in practice doing more than two visits within forty-day period. During first visit, collectors deliver bills to subscribers and offer them chance to pay right away. A minority does pay right away, and those who do not pay during the first visit, receive a paper note stating the amount to be paid and the proposed date of the second visit. If payment is still not done on second visit, subscribers are required, in principle, to pay in a local branch office where they will be charged a 6,000 L.L fine for late payment, and defaulting on three consecutive bill payments results in electricity suspension.



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Treatment Groups:

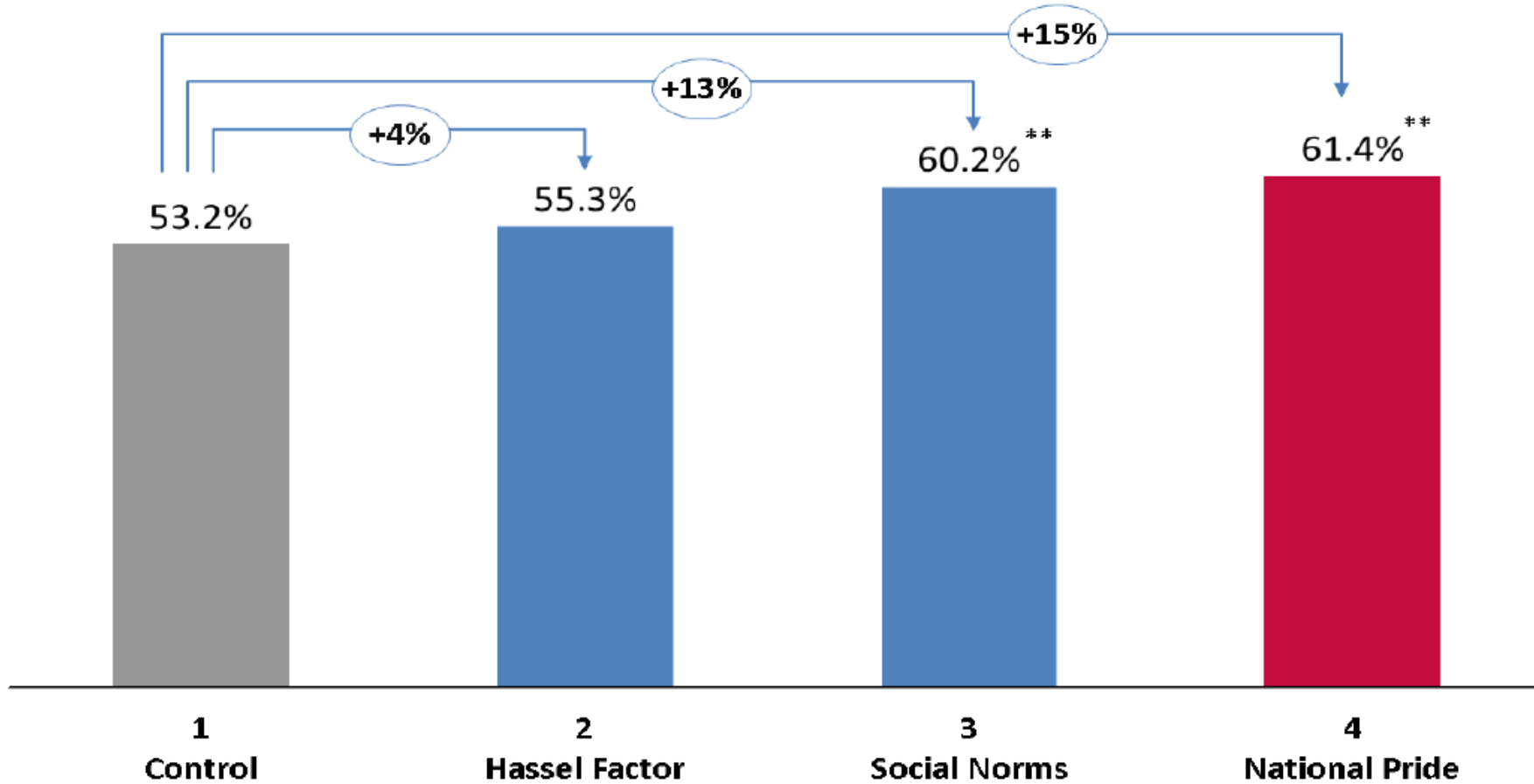
1. Received hassle factor and loss aversion slip, which lays out steps subscriber has to follow in case of no compliance by second visit and highlights extra financial fees that will be charged.
2. Consisted of social norm slip, which reveals high percentage of subscribers in local community paying bills on time. Message reads : “More than 90% of the residents in your area pay their bills on time, will you be part of this group?”
3. Invoked national responsibility by including Lebanese flag and using soft language that trigger sense of patriotism. Message reads as follows: “Your country needs you, be a good citizen and pay your due electricity bill on time.”

Results:

- With 95% confidence, ‘Social Norms’ and ‘National Pride’ nudge slips have statistically significant impact on payments, with latter being most effective: 61.4% (with $p= 0.0233 < 5\%$) of those who received ‘National Pride’ slip in first visit paid their bills by second visit, including people who paid immediately in first visit; compared to control, this slip led to a 15% improvement in payment rates.
- Results of ‘Social Norms’ nudge slightly lower: 60.2% (with $p= 0.0399 < 5\%$) of this group paid their bills, which is a 13% improvement compared to the control.
- ‘Hassle Factor’ slip led to an increase of 4% in the response rate compared to the control, yet results are not statistically significant (55.3%, with $p= 0.2619$, of people in this group paid).



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* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$



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Implications & Recommendations

This nudge trial is noteworthy in many ways:

- It shows cost-effective and small changes in context, in particular, through ‘Social Norms’ and ‘National Pride’ nudges can effectively speed up bill payment rates.
- Even single digit percentage improvement in bill payment speed can create significant savings if such an experiment is replicated at a national level.
- It showed behaviorally-driven slip increases the probability of people paying bills as opposed to normal slip.
- This case is an eye opener for multitude of interventions in other sectors, including **tax payment**, with great potential for massive savings and improved public service delivery at national level.



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