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ARE YOU KEEPING UP WITH THE JONESES?

Social norms in the energy bill to reduce Spain's overall energy demand this winter

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The upward trend in fuel prices, coupled with the war in Ukraine have led to the energy crisis Spain and many other countries are currently facing . Given this context, it becomes crucial to control supply and prices during the winter. The residential sector accounts for 20% of overall energy consumption in Spain. Rising energy prices will undoubtedly have a high impact on consumers' welfare, this is especially relevant for the most vulnerable, whose energy bills represent a higher share of their costs (with the bottom income quintile spending 9% of their income on electricity bills[1]).

With this in mind, the European Union and the Spanish government have approved emergency measures to reduce energy consumption and limit energy prices. Among these measures, the Spanish government will require that from October, electricity and gas suppliers to include the average consumption of people living in the same postcode (Real Decreto-ley 18/2022).

This measure builds on the concept that social norms influence consumers' decisions, meaning that consumption in excessive-consumption households can be decreased through the impact of social influence. This is not the first time this intervention has been implemented, and international experience shows that the measure's success will depend on the design.

By using a *randomised controlled trial* (RCT), a statistical trial for impact evaluation where subjects receiving the policy intervention are chosen at random, it is possible to test which information and format have the greatest impact.

The power of social norms

Increasing energy savings and efficiency has been the goal of regulators across the globe for decades. Even when it is clear that improving energy efficiency or following energy-saving habits can be economically beneficial, market failures and other barriers prevent their adoption (known in the literature as "the energy efficiency paradox").

So far, regulators have mostly used conventional policies to solve this problem. For example, by imposing minimum levels of energy efficiency on the supply side; or by setting taxes that discourage consumption or subsidies that incentivise savings and investment on the demand side. However, these measures have not achieved their goal because not all of the factors that influence decision-making were considered in the policy-making process.

Behavioural economics combines elements from economics and psychology to analyse and explain decision-making. Numerous behavioural economics studies, including one conducted by Jason Shogren and Laura Taylor, have identified decision-making factors and pinpointed some common features. These features are hardwired into human thinking, and influence our behaviour. . In the literature, they are known as "biases" because they describe situations in which we do not act as predicted by economic theory.[2]

[1] https://elpais.com/economia/2022-10-26/el-gasto-en-energia-de-los-hogares-de-menores-ingresos-se-dispara-mas-de-un-70-en-dos-anos.html?event_log=oklogin

[2] Shogren, J., Taylor, L. (2008). On behavioral economics. Review of Environmental Economics and Policy 2(1), 26-44.

Unsurprisingly, studies have found that other variables besides price affect consumers' decisions. For example, emotions, uncertainty, altruism or social norms. In addition, the information consumers receive and the manner in which it is presented can also change their preferences.

In particular, people use their perception of others' behaviour as a reference for their own behaviour. This is a reference point from which they do not want to deviate, especially from those they feel closest to.

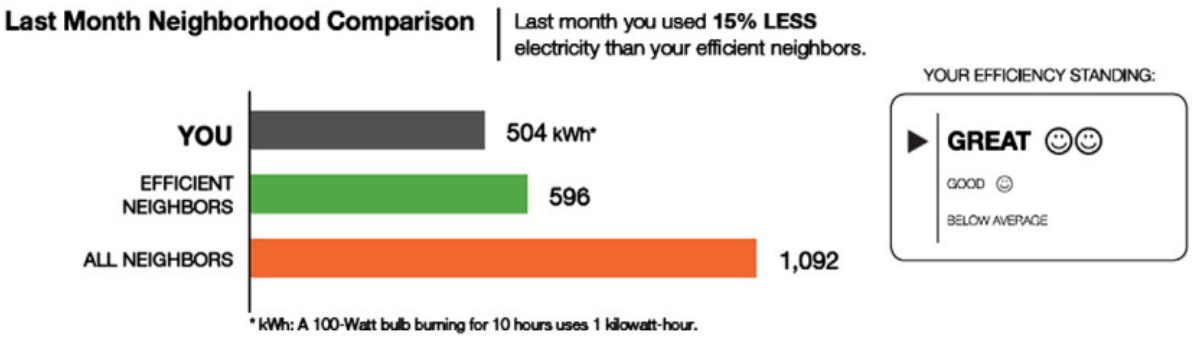
Comparison of average consumption in the neighbourhood

The more innovative energy efficiency policies, such as the one approved by the Spanish government in October, take advantage of these behavioural traits to nudge consumers in a the direction of their objective. In this case, towards energy savings. A nudge is an intervention that influences behaviour by preserving freedom or without changing economic incentives significantly.

Set of options and the need for testing

As mentioned before, the comparison with neighbourhood consumption is not new. It is one of the most well-known interventions in behavioural economics and takes advantage of our desire to fit in. One of the largest experiments in this field was conducted by Hunt Allcott in the US on a sample of 600,000 households. Results found that the measure reduced consumption by 2% on average.[3]

Figure 1 Example of the information provided in Allcott's study



Source: *Allcott, H. (2011). Social norms and energy conservation. Journal of Public Economics, 95(9-10), 1082-1095.*

Several conclusions can be drawn from the studies we have mentioned:

- Below-average households may actually increase their consumption. This is because, they appear to be doing well, and therefore don't feel the need to decrease their consumption and instead feel they have "room to grow". This risk is known as the *boomerang effect*.

[3] Allcott, H. (2011). Social norms and energy conservation. Journal of Public Economics, 95(9-10), 1082-1095.

- To prevent unintentional consequences, some studies include historical consumption or a prescriptive social norm (the social valuation of a certain behaviour). For example, adding a smiley or sad face depending on how you compare with others can prevent below-average consumers from reverting to the mean.[4]

- The effect duration may be limited, and is often reinforced with a higher frequency of communications (e.g. with monthly versus quarterly bills). In some cases, the impact decreased two weeks after the end of the intervention.[5]

- The desire to fit in can lead us not only to act differently but also to refurbish our home to achieve it.[6]

Success will depend on the design

Past experience shows that we can anticipate some expected outcomes and risks, based on the current design, the final result will however depend heavily on the context.

- **The current situation**: inflation, energy prices, and the war in Ukraine dominate the news. Consumers may therefore be paying more attention to their energy bills and consumption than at normal times.

- **Excessive information:** electricity and gas bills are already complicated to read, and their content has been constantly increased. As a result, the expected effect from a written signal may not be as strong if customers simply aren't reading their bills. If so, alternative means of communication must be explored.

- **Benchmarking**: the average consumption of people in a neighbourhood establishes a reference point that consumers can feel close to. It also accounts for geographical differences that affect consumption (for example, weather patterns) and provides simplicity in data processing and collection. It will, however, lose effectiveness if consumers think the mean is not comparable, for instance, if they own an electric car and so have a justified higher bill than the average. In this situation, alternative benchmarks should be explored, such as average consumption per household type and geographical region.

- **The measurement unit:** the current policy displays energy volumes, but alternatively, energy costs or CO2 emissions could be used. It is important to test which variable attracts more attention.

[4] Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms.

[5] Allcott, H., Rogers, T. (2014). The short-run and long-run effects of behavioral interventions: Experimental evidence from energy conservation. American Economic Review, 104(10), 3003-3037.

[6] Brandon, A., Ferraro, P., List, J. A., Metcalfe, R., Price, M., & Rundhammer, F. (2017). Do the effects of social nudges persist? Theory and evidence from 38 natural field experiments. NBER Working Paper, (w23277).

- The ***boomerang effect***: to prevent the below-average consumer from increasing their consumption as a result of having "room to grow", the bill should include additional information or exclude the comparison for these consumers.

These are only a small number of aspects of the intervention design that can change its outcome. To ensure the best outcome, a set of options or treatments should be designed and tested. Only with extensive testing on these parameters to determine the optimal structure of the messaging can the policy achieve the greatest impact.

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