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Not Only for the Money: Nudging SMEs to Promote Environmental Sustainability

Policy Implications of Research

Numerous policy programs aim to improve green management practices of Small and Medium-Sized Enterprises (SMEs). Our research shows that financial benefits are not the main driver for SMEs when participating in such programs. Having a positive impact on the environment is just as important to them. When recruiting SMEs into policy programs targeted at increasing environmental sustainability, policymakers should therefore not solely focus on stressing financial benefits from saving electricity and other resources but emphasize the positive environmental impacts of green management practices. This opens a new way to promote governmental programs to firms even if there are no important financial benefits to be realized for firms.

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Study Design and Results

Field Experiment with SMEs

In conducting the field experiment (and one of the surveys), we collaborated with several government agencies and not-for-profit NGOs in Switzerland that provide environmental consulting to SMEs in several cities (the field experiment was implemented in Lucerne and Zug). Consultations consist of a standardized procedure and are designed to provide a short check-up to assess a SME's potential to improve its environmental management. This standardized consulting is provided free of charge to any interested SMEs, as the programs we collaborated with are fully funded by local governments.

To invite SMEs into the programs, they are contacted by phone. Callers briefly present the consulting program and inquire whether the contacted SME would be interested in receiving free environmental consulting. The organization has developed a phone script that callers follow during the acquisition process to assure consistency. We adapted the phone script, implementing four different versions of how callers presented the main advantages of participating in the environmental consulting. These versions were randomly assigned to contacted SMEs in the field experiment.

The experimental manipulations either stressed the financial or environmental benefit of participating in the program and changed the way the financial or environmental benefits were presented, either as a possibility to gain something (do good for the environment or save money from reducing resource use) or as a missed opportunity (miss the opportunity to do good or miss the opportunity to save money). The first manipulation tests the conventional wisdom that firm decisions are mainly driven by monetary considerations to maximize profits. If this is the case, we should see in the experiment that firms are more willing to participate in the program if the caller stresses the financial benefits of participating in the program as compared to when the caller stresses the benefits for the environment. The latter variations are commonly referred to as gain and loss framing in the literature and build on the concept of loss aversion stating that losses (missing out) loom larger than gains (gaining something, see, e.g., Kahneman and Tversky, 1979). According to loss aversion, loss frames should be more effective motivators than gain frames. The power of loss frames is supported by some previous studies (e.g., Ghesla et al., 2020), but policymakers and practitioners are often reluctant to implement loss frames, as they fear negative reactions from their target audiences.

The SMEs contacted in the field experiment came from different industries and were randomly selected. The experiment ran from the end of June 2018 to mid-October 2019. During that time, callers contacted a total of 851 companies. The contacts were evenly distributed among all four experimental treatment conditions. The successful recruitment of a firm into the program was the dependent variable of interest.

To support the field experiment, we conducted two surveys with SMEs in Switzerland. In one survey we collected responses from 246 SMEs that participated in a comparable consulting program in Zürich, a region different to the one where the field experiment was conducted, between 2009 and 2019. In the second survey, we collected responses from 565 SMEs (5,232 SMEs were initially approached) about their motivations to implement environmental business practices. The first survey was conducted between November 2019 and January 2020. The second survey was part of a Bachelor Thesis (Mühlethaler, 2021) and ran from April to May 2021. See Grieder et al. (2023) for more details on the design of the studies.

Key Messages

We conducted a field experiment in which we varied the way SMEs (N=851) were approached to participate in a policy program designed to support them in becoming more environmentally sustainable. Specifically, in recruitment calls we varied the invitation to participate in the program and stressed either the environmental or the financial benefit of participation.

We found that nudging interventions stressing the environmental benefits of green management practices are just as effective in recruiting SMEs for the policy program as emphasizing the financial benefits. This has two implications for policymakers: First, policy programs targeted at firms should not only focus on describing potential financial benefits, but also clearly communicate environmental benefits. Secondly, this opens an effective way to promote governmental programs to firms for which there are no important financial benefits from introducing green management practices, which is often the case for SMEs.

Additional survey evidence supports these findings and shows that personal motivation of owners or employees to have a positive environmental impact are the main drivers behind SME participation in programs that are intended to increase their environmental sustainability.

In addition to stressing the financial and environmental benefits of green management practices, we also either highlighted the benefits of participation (gain frame) or the missed opportunities when not participating (loss frame) in our field experiment. Although we did not identify significant differences, gain frames seem to be the superior choice in the promotion of sustainability in SMEs as they are perceived as less controversial by policymakers.

What is meant by…

Environmental management practices: the tools, policies, and processes that a company employs to monitor, control, and improve the impact of its operations on the natural environment.

Nudges: Nudges are deliberate changes in the physical, social, and psychological decision context to influence a decision in a predictable way.

SME: Small and Medium-Sized Enterprises, typically defined as companies with no more than 250 employees.

Stressing environmental benefits is just as effective as stressing financial benefits

The success rates of recruiting SMEs into the consulting program were very similar in all experimental treatments (see Figure 1). Stressing the environmental benefits was slightly more successful than stressing the financial benefits. The differences are, however, statistically insignificant. Additionally, the results very consistently show that there are no benefits associated with applying loss frames and stressing missed opportunities compared to the more common gain frames.

The survey results support the findings from the experiment. Rather than financial considerations, personal convictions and preferences of SME managers or owners were the most important factors that SME decision makers mentioned as reasons for participating in the consulting program and for implementing environmental management practices (see Figure 2).

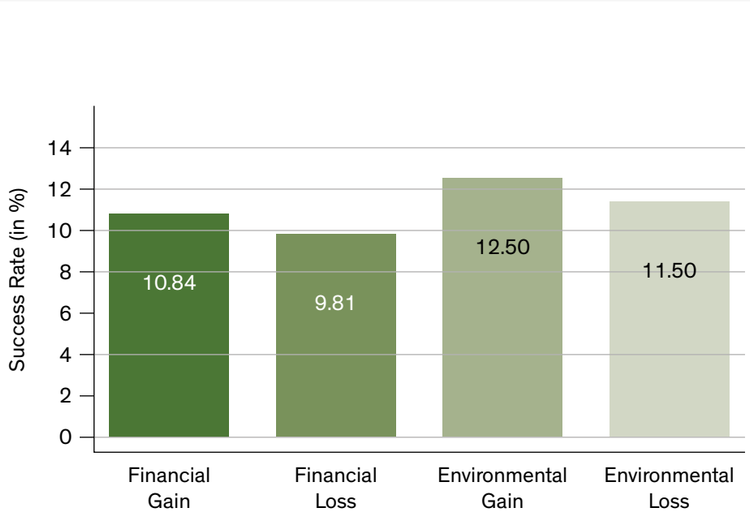

Figure 1:
Success rates of financial and environmental motivations across experimental treatments

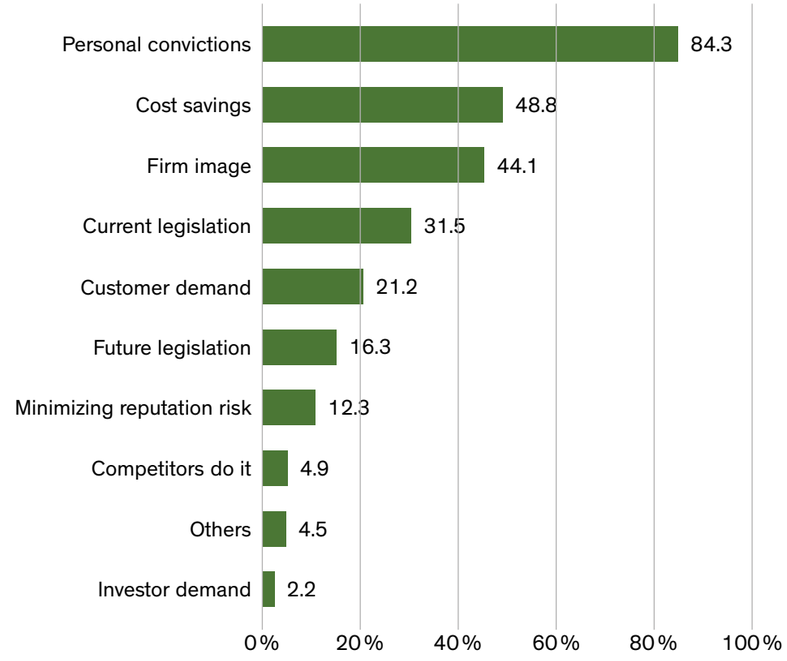

Figure 2:
SMEs' Reasons for the Implementation of Pro-environmental Measures

Discussion

As there are no statistically significant differences in terms of the effectiveness of the different experimental treatments, based on the current data, we cannot rule out that the experimental manipulations in place were too subtle. Further research should work with tighter controls and larger sample sizes to test the robustness of the current results. Nevertheless, the current results provide interesting insights into the use of green nudges or similar tools to promote environmental sustainability measures to SMEs.

Conclusion

We tested the effectiveness of nudge style interventions from behavioral economics to foster SME interest in learning how to improve their environmental management. Specifically, the experiment investigated the effectiveness of emphasizing environmental benefits (compared to financial benefits) and of loss framing in the form of emphasizing missed opportunities (as opposed to potential benefits) in promoting a free, government sponsored environmental consulting program to SMEs in two Swiss cities.

The results of the field experiment show that environmental decision making in SMEs is not only driven by financial motives (see also Grieder et al., 2022) and that SMEs can also be motivated by stressing the environmental benefits that can be reached by participation. These findings are in line with the results from the two surveys we conducted to gauge the motivations for SMEs to adopt environmentally friendly management practices. According to the survey respondents, the positive environmental effect was more important to them than the financial returns or a possible increase in firm market value for implementing measures improving environmental sustainability. In addition, the personal convictions, e.g., environmental preferences of owners and employees were the most frequently mentioned drivers for the implementation of environmentally friendly management practices.

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Authors

Manuel Grieder
UniDistance Suisse, Faculty of Economics and Zurich University of Applied Sciences (ZHAW), Center for Energy and the Environment,
manuel.grieder@fernuni.ch

Deborah Kistler
UniDistance Suisse, Faculty of Economics,
deborah.kistler@fernuni.ch

Jan Schmitz
Radboud University Nijmegen, Institute for Management Research, Department of Economics,
jan.schmitz@ru.nl

Felix Schlüter
UniDistance Suisse, Faculty of Economics,
felix.schlüter@fernuni.ch

About NRP 73

www.nrp73.ch

The National Research Programme “Sustainable Economy” (NRP 73) was launched by the federal council with a global budget of CHF 20 million for five years of research starting mid-2017. It funded 29 research projects in different thematic areas such as Circular Economy, Finance, Building & Construction, Cities & Mobility, Forestry, Agriculture & Food, Supply chain, Sustainable Behaviour and Governance. NRP 73 aims at generating scientific knowledge about a sustainable economy that uses natural resources sparingly, creates welfare and increases the competitiveness of the Swiss economy.

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National Research Programme
“Sustainable Economy” NRP 73
Swiss National Science Foundation SNSF
Wildhainweg 3
3001 Bern

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Contact

Irina Sille
Programme Manager NRP 73
SNSF, Wildhainweg 3
3001 Bern

T: + 41 (0)31 308 22 20
E: nrp73@snf.ch

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