

# Frugal lifestyles as a pathway for transition to a sustainable society in Europe: Evidence from an empirical survey in Germany

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Frugal innovations, loosely defined as affordability-oriented products and technologies, started as solutions with a potential to raise standards of living in the countries of the “global south” to achieve sustainable development goals ([Tiwari and Herstatt, 2012](#)). Over the years, studies in countries such as Austria, Germany, and Japan have shown their increasing relevance to the industrialized economies in the face of resource crunch, intensifying competition, and desire for voluntary simplicity ([Tiwari and Kalogerakis, 2020](#)). Moreover, studies commissioned by the European Commission have likewise confirmed their relevance and potential in the context of the member states of the European Union (*see, e.g.,* [Kroll et al., 2017](#)). The contribution of frugal innovations to ecological sustainability has, however, been subject of debate (Müller 2023). While some scholars have suggested an inherent sustainability component in frugal products due to their emphasis on minimization of resources used, some others have tended to discount the positive ecological impact as an unintended by-product at best ([Le Bas, 2016](#)). Furthermore, points have been raised in terms of potential rebound effects of frugal products ([Tiwari and Herstatt, 2020](#)).

In the present study we address this research gap by identifying the potential risk regarding rebound effects of frugal innovations. We argue that rebound effects are closely associated with “non-voluntary” simplicity where the urge to consume is strong but cannot be fulfilled due to resource constraints. The study expands the “Frugality 4.0” paradigm proposed first by [Tiwari and Herstatt \(2020\)](#) and explore the concept of frugality as a precursor to the adoption of frugal innovations. The assumption is that customers who voluntarily choose a frugal product will not overindulge in consumption even if they had financial means to do so.

An empirical survey (n=338) was carried out in focused geographic area in Frankfurt/Main in Germany as a part of a larger, mixed-methods project to identify lifestyles and choices of the residents based on survey of waste water in the concerned geographic location. The telephone survey measured the level of frugality of the respondents. The results indicate that frugal lifestyles, when adopted independent of financial constraints, are more sustainable and less likely to lead to undesired rebound effects. On the other hand, when frugality is not adopted as a desirable value/norm but rather because of financial

constraints, consumption is likely to increase when the solutions become frugal, and thus more affordable.

The results possess strong policy, business, and research implications. Lifelong learning and institutions of higher education can play a crucial role in identifying and utilizing the potential of frugality as an important pathway for transition to a sustainable society in Europe. The paper recommends measures for curriculum enhancement to raise an awareness both on the consumption and on production side.

## References

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