

Interview for SIG on sustainable behavior 12-03-2025

Introduction:

In this interview, Biba (student assistant of the special interest group on sustainable behaviour) talked with Michał Bączyk about his most recent published paper: [Consumer behavior in circular business models: Unveiling conservation and rebound effects.](#)

Biba: I'd like to start with some introductory questions. Can you tell me a little about yourself and where you're from?

Michał: My name is Michał, and I'm originally from Poland, where I grew up. I moved to the Netherlands about five years ago to pursue my master's, which brought me here. My academic journey started in aerospace engineering, but I gradually became more interested in sustainability.

While working in the aerospace industry, I saw first-hand that the transition to sustainability wasn't progressing as expected. There was a lack of viable sustainable fuel alternatives, and despite efforts in lightweight design, air travel kept increasing. I wanted to understand the relationship between technology and sustainability, which led me to pursue a master's in Sustainable Business and Innovation at Utrecht University.

Coming from an engineering background, I enjoyed learning about sustainability from a different perspective. After completing my master's, I felt the need to dive deeper into a specific topic. This led me to pursue a PhD on consumer behavior in circular business models, which I started two years ago.

Biba: Your article is the result of your PhD research, correct?

Michał: Exactly. The recently published paper is my first PhD paper and closely aligns with my overall research focus on consumer behavior in circular business models. A significant part of my work also involves assessing the environmental impact of these models, particularly considering rebound effects which are unintended consequences of circular business models.

In this first paper, I reviewed what is already known about consumer behavior in empirical cases and how environmental assessments are conducted. I also identified areas for improvement.

Biba: What motivated you to explore this topic?

Michał: One aspect that attracted me to this PhD was its critical approach to the circular economy. I had seen many techno-optimist narratives portraying circularity as a flawless solution, assuming that making everything circular would automatically yield great results. However, there was little empirical evidence to support these claims. I wanted to take a deeper look, examining both the benefits and potential drawbacks while identifying possible pitfalls.

Biba: Before we dive deeper into your article, what were your key findings? Was there anything that surprised you?

Michał: One key finding confirmed my skepticism, those overly optimistic narratives about circularity were indeed too good to be true. However, we also found strong evidence that circularity can enhance sustainability. It's always a balancing act.

The main driver of consumer engagement with circular business models was convenience rather than pro-environmental values. People were drawn to these models because they met their needs practically, not necessarily because of sustainability concerns. This, in part, contributed to unintended increases in consumption.

Another interesting observation was that while some consumers behaved more sustainably, others increased their consumption, offsetting overall environmental gains. This pattern was driven largely by economic systems and social norms. Businesses offering circular products still need to generate profit, often by providing superior value compared to conventional businesses. Likewise, convenience is highly valued socially, sometimes leading to more consumption rather than less. For example, car-sharing services can sometimes lead to increased driving rather than a reduction in car ownership.

Biba: It sounds very interconnected, which is common in behavioral studies.

Michał: Exactly. At a systemic level, there were both positive and negative effects. That's why it's crucial to adopt a systemic perspective when evaluating sustainability impacts.

Biba: Was this surprising to you? You mentioned earlier that you expected some of these findings.

Michał: It was somewhat surprising but in a positive way. It made me more optimistic about circularity's potential. What surprised me most was how much context matters. The same business model introduced in different countries led to different outcomes.

A great example is shared laundromats. In Thailand, where urban homes are small, people opted out of owning personal washing machines, leading to reduced overall washing machine use. However, in Japan, where most households already own washing machines, laundromats encouraged people to wash bulky items they wouldn't have washed before, increasing overall washing. The same model had opposite effects based on local habits and infrastructure.

Biba: How can businesses use these insights to improve their models?

Michał: Businesses should align environmental and economic benefits while actively engaging with consumers. Understanding consumer needs and designing models that encourage sustainable behavior is crucial. Additionally, companies should test their models with real users to identify unintended behaviors and adjust accordingly.

One example is a Dutch company offering washing machines as a service. Instead of selling the machines, they remained the owners, and users paid per wash. Lower-temperature

washes were cheaper, encouraging eco-friendly choices. However, because customers washed less frequently, the company faced financial challenges and had to switch to a monthly subscription with a fixed number of washes included. This illustrates the tension between sustainability and business viability.

Biba: So, in addition to consumer engagement, would you say flexibility in business models is also essential?

Michał: Absolutely, especially in the early stages. Experimentation is key. Businesses need dynamic capabilities to identify market opportunities and adjust consumption patterns to be more sustainable.

Biba: Your research identified four conservation mechanisms and seven rebound mechanisms. Can you explain their relevance to businesses?

Michał: The rebound mechanisms were based on an existing classification, so my main contribution was identifying conservation mechanisms which are factors that drive more sustainable behavior.

A key challenge is that rebound and conservation mechanisms are interrelated. For instance, secondhand clothing is cheaper than new clothes, allowing consumers to save money. While this reduces new textile consumption, people may spend the saved money elsewhere, increasing overall consumption. Additionally, people often increase their volume of secondhand purchases over time. Initially, they buy only what they need, but as they become comfortable with the practice, they buy more than necessary, encouraged by lower prices.

This complexity makes it crucial to track behavior over time, rather than assuming circular consumption is automatically more sustainable.

Biba: Is there a specific factor that makes consumers more aware of sustainability and overconsumption?

Michał: It's difficult to pinpoint a single factor, but consumer characteristics and consumption context play a role. When purchases satisfy basic needs, rebounds are less prominent. However, with luxury or status-related items, consumption often increases. Rather than placing all responsibility on consumers, businesses should design environments where sustainable choices are the easiest and most appealing option.

Biba: Earlier, you were somewhat critical of circular business models. Has your perspective changed?

Michał: Yes, definitely. Initially, I was more skeptical. However, this research reinforced the importance of letting evidence shape my views. Social sciences are influenced by researchers' perspectives, but my supervisors encouraged me to remain open to different viewpoints.

Biba: Lastly, what's next for your research? Are you exploring a new topic?

Michał: Now that this paper is published, I'm developing an agent-based model of secondhand clothing consumption. This model simulates how new and secondhand clothes are produced, bought, and discarded. The goal is to test different policies and assess their impact on consumption and sustainability.

We're comparing a system without secondhand clothing to one with it, examining whether introducing secondhand options truly reduces overall consumption. We'll also analyze policies like incentivizing eco-conscious behavior and requiring retailers to offer resale services. After that, I'll conduct lifecycle assessments to identify which scenarios yield the most significant environmental savings.

Biba: That sounds fascinating. Thank you for sharing your insights!

Michał: Yeah, thank you. And looking forward to the result.