INFORMATION IS POWER: THE COMBINED EFFECT OF REGULATORS' AND RETAILERS' ACTIONS TO IMPROVE CONSUMER WELFARE IN RESIDENTIAL ENERGY MARKETS

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Overview

Active consumer participation is a necessity for the European energy transition (ACER & CEER, 2019; Schweiger et al., 2020). First of all, active consumer participation enables a competitive market which propels affordable prices for consumers, good standards of service, and offers which match consumers' diverse and evolving preferences (Lewis et al., 2021). Active consumers who purposefully compare electricity contracts and switch when a better offer is available improve efficient allocation of resources and therefore preserve affordability of energy. Secondly, the energy transition may increase the volatility of energy generation. Mismatches of supply and demand can lead to balancing problems in transportation and high energy prices. Active consumer behaviour in retail markets is the essential first step for consumers to contribute to balancing supply and demand. Hence, active consumer participation is a crucial precondition for policymakers to reach their goal to, on the one hand, realise climate-policy objectives and, on the other hand, ensure safe and affordable energy for all consumers (Mulder, 2020; p. 6). Even in potentially competitive markets, customer inertia can lead to sub-competitive outcomes, which are hard to remedy for policy makers (Waterson, 2003). Therefore, consumer inertia is one of the four largest market barriers in European energy markets (Lewis et al., 2021).

Prior research identifies high searching and switching costs as important barriers towards active participation (Waterson, 2003). Search costs concern costs of acquiring information to make the optimal decision, while switching costs are transactional costs related to the ease and perceived risk to switch between contracts. These search and switch costs are often too high relative to the price benefits of switching, creating a lock-in effect for homogenous products, which results in consumer inertia even when cheaper alternatives are available (Farrell & Klemperer, 2007). Policy makers promote transparent information, for example through standardisation of contracts, availability of comparison websites, and guarantees of origin for renewable energy (Mulder, 2020). These policies resulted in an increase in switch rates for most European countries, but overall, the switch rates remain low (ACER & CEER, 2019).

While government policies to encourage consumer participation fits within the microeconomic framework of transparent, well-functioning markets, the behaviour of retailers may deviate as they have different objectives. Retailers are motivated to increase customer loyalty, as customer retention is much more profitable than acquisition (Shruti Gupta & Ogden, 2006; Natter et al., 2015). However, it is unknown whether the contradiction in objectives regarding switching behaviour implies that retailers hamper regulators' goal to improve consumer welfare. On the one hand, retailers can purposefully increase information costs to increase customer loyalty, which reduces active search and switch behaviour and decreases consumer welfare. On the other hand, retailers may aim to increase customer loyalty by offering better products and services for lower prices or appealing loyalty programs, which increases customer satisfaction and consumer welfare (de Haan et al., 2021). The contribution of this research is the interdisciplinary angle, combining micro-economic literature and marketing literature to capture regulators' and retailers' objectives. Using a unique dataset, this research aims to answer the research question *to what extent do retailers' profit maximising actions obstruct or reinforce policy makers' efforts to increase consumer welfare?*

Methods

To answer the research question, we empirically examine the actions of regulators and retailers on consumer welfare, and how the actions of retailers affect the actions of regulators and vice versa (Figure 1). This analysis is conducted for the Dutch retail energy market. We use secondary data from the Dutch energy regulator, ACM, which provides panel data on consumer switching behaviour in the Dutch retail energy market, prices and offers made by different retailers, and relevant policies issued by the regulator. Additional data on consumer behaviour and their motivations is provided by research institute GfK. Information on the behaviour of retailers is provided by an independent Dutch retail energy comparison website.
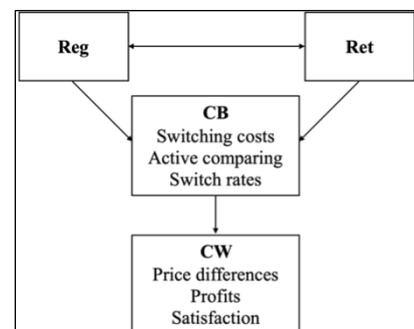

Figure 1. Conceptual Model

As depicted in Figure 1, consumer behaviour (CB) in the energy market is affected by actions of regulators (Reg) and Retailers (Ret). Hence, $CB = f(Reg, Ret, X)$. Our research distinguishes three levels in the path to purchase the perceived switching costs (cognative), actively comparing different retailers (affective), and switching to another retailer (conative) (Srinivasan et al., 2016). The behaviour of consumers determines the consumer welfare (CW) in the retail energy market: $CW = f(CB, X)$. Consumer welfare is a theoretical construct which cannot be directly observed. Therefore, the effects of retailers' and regulators' actions are regressed on three related proxies, namely retailer price differences, retailers' gross margins, and consumer satisfaction. The price differences can be directly observed in our data from ACM/the price comparison site. We use the method developed by Mulder & Willems (2019) to estimate gross retail margins by matching the duration of the retail contract with the wholesale contract (which are also in the data provided by ACM). Consumer satisfaction captures the non-monetary aspects of consumer welfare, and is available in the data from GfK. The effects on these three indicators of consumer welfare provide insights on how regulators' and retailers' actions affect active consumer participation and consumer welfare.

Results

With this data we expect to find a negative effect of regulators' policies towards switching, and positive effects towards active comparing and switch rates. We expect that these effects are partly diminished through the positive effect of retailers' efforts to increase customer loyalty on switching costs, and negative effects on active comparison and switch rates. The unique dataset will provide insights in the relative effect sizes of actions of both the regulator and retailers on different manifestations of consumer behaviour and how these actions eventually benefit or harm consumer welfare.

Conclusions

By answering the research question this research indicates the relative effects of regulators' and retailers' actions on consumer behaviour, which provides important insights for scholars and policy makers. This research contributes to the current literature by combining insights from micro-economic literature and marketing literature. Moreover, this research provides important insights for policy makers to reach their climate goals. The results will not only indicate the relative effects of actions of regulators and retailers, but will as well indicate how this affects various aspects of consumer behaviour and subsequently consumer welfare. These insights can help policy makers to write effective policies which are needed for a safe, sustainable, and affordable energy transition.

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