summary

In “Consumer Welfare and Price Discrimination”, Wallmark and Greenberg present a view of pricing concerns and price discrimination practices in today’s information rich business environment. The authors argue that retailers are able to move closer to a model where price is maximized for each customer based on insights gained through data mining of past retail history. The authors present a statistical analysis of purchase behavior of two groups: Loyalty Card holders and the remaining population, applied as a control, to attempt to infer whether a form of price discrimination is applied. The authors found that there was no effect on discount amount based on the reported income of the purchaser.

main impression

The topic seems like a novel approach to gaining insights about consumers, and the extent to which prices might vary across the demographics known to the database. It should be interesting to economists, as well as policy makers, and retailers, to understand if pricing practices at retailers.

To be Commended

The authors provided a thorough walk thru of the statistical technique applied as well as the preparation of the data for statistical analysis. They also provided several carefully prepared boxplots that showed major differences between the groups shown. Visuals that were shown were cleanly prepared and followed good visualization principles. The authors also provided an in-depth summary of Sherman Antitrust Law and the Robertson Patman act.

To be improved

The paper uses statistical methods to make inference about the relationship of consumer demographics and price discounts applied. The data source was household purchases for 2,500 households over a fixed time period. The data set would include multiple tables, and thus would require some munging and cleaning to bring to a consolidated view required for statistical analysis. While there is a comprehensive analysis, it doesn’t extend towards prediction as I would expect in a data science implementation versus a statistical or economic research piece. I’m not sure if the end conclusion has a large enough “a ha” of yes or no that pricing discrimination is happening or that there are specific traits found.

Comments to the Authors

I think some additional background knowledge and research on Price Discrimination would be useful to the reader. Likewise, I think there could be some good background research that speaks to practices within credit scoring that might be extendable to the question of pricing and the use of specific attributes and demographic traits.

The dataset is dimensionally rich when fully exploded. I think there could be a better level of detail to control for other factors by using some of the added dimensions added through examining causal data remoted to promotional participation, coupons, etc. As mentioned in the document, some of the actionable information is removed from the database for privacy so it’s hard to understand other factors that might be a reason why high income consumers don’t get the same discount rate – but in the retail grocery world many of the premium products on the shelf don’t go on promotion because their role in store is driving the retailer’s profitability and basket size, versus being foot traffic drivers.

There is not specifically an ethics section, but obviously the full paper speaks towards the ethical concerns of a practice that might employ demographic data. The [NCRA has a Code of Ethics](http://www.ncrainc.org/code-of-ethics.html) when it comes credit reporting and scoring – should retailers and e-commerce sites adhere to a self-imposed standard? Should it be legislated?

There is some prior research that at least addresses conceptually the idea of 2nd degrees price discrimination in retailing. Anderson and Song provided research on practices of couponing and front line practice for retailers and manufacturers (Journal of Marketing Research).

MY RECOMMENDATION

Accept with Revisions. I think in the time frame before publishing a couple of extra citations that are domain specific for retail or consumer facing 2nd degree price discrimination could help build more of a “why” statement for this study.