Align Stakeholders with a Simulator Makeover

By Ben Cortese (Statistician & BI Consultant)

Aligning stakeholders poses a difficult challenge in market research. Whether the goal is new product development, pricing, product cannibalization, or another business issue, combining everyone’s interests and getting to the recommendation efficiently is no simple task. The improvement of market simulators – tools that provide access to respondent preference, pricing information, etc. that represents the current market place and allows for researchers to explore various combinations of offers and services – has been successful in alleviating some of these difficulties.

Market simulators are the delivery mechanism of conjoint study results. These tools gauge the reaction of the market and competitors to help drive insights into positioning products and services to meet a variety of business objectives. Simulators are interactive, with output refreshing in real time, and are an essential piece of any conjoint study. (For more details on conjoint simulators, see this article.)

Recent technological advancements have opened the door for alternatives to traditional market simulators. The statistical language R, in tandem with the package Shiny, allows for a web-based interface with the full power of R in the backend. Not only are these tools faster (in terms of processing time) than the alternatives, they also provide a fully customizable user experience and many custom calculations/visuals.

There are plenty of benefits to using R and Shiny for market simulators. Here are several:

- **Fast processing calculations provide insights without the wait** – The ability to look at analytics quickly and in real-time goes a long way in getting everyone in the room on the same page. By design, R can handle complex calculations quickly and efficiently without any loss of accuracy. Additionally, this hosted offering uses the processing power of a server instead of relying on the limitations of a laptop or PC.
- **Web-based user interface** – Stakeholders can individually engage with the metrics that are of greatest interest to them. They can also each securely access the simulator from most browsers at any time.
- **All aspects are fully customizable** – An executive summary format shows ad-hoc cuts of various data sources – including internal data and primary research to develop meaningful metrics and glean insights customized to fit any need.
- **Interactive charts, tables and visualizations** – Efficiently use meeting times by making use of interactive plots with live filtering, sortable data tables and eye-catching visualizations that interact with selections in the simulator. Charts can be created directly in the tool for use in reporting.
- **Easily update on the fly, without having to exchange files** – Do you need to add another analysis point after stakeholder discussions? The simulator is web-based so that updates are pushed automatically. There is no longer a need to keep track of versions of locally downloaded tools.

The possibilities of R and Shiny are ever-evolving, constantly adding new content and functionality. The ability to integrate multiple data sources and tie key metrics into an R Shiny simulator is another step closer to aligning stakeholders – providing both an intuitive and powerful tool to inform strategic decisions.
About the Author

Ben Cortese has been with KS&R for several years, working with a diverse client group on advanced analytics projects. As an expert R programmer, his focus is on exploratory analysis, Bayesian network modeling, key driver analysis, discrete choice and predictive modeling.

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