# THE CRITICAL ROLE OF METHODOLOGICAL PLURALISM FOR

# POLICY-RELEVANT EMPIRICAL MARKETING RESEARCH

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Research can be characterized in terms of three domains (Brinberg and McGrath 1985): (a) the substantive (the real-world problem of focus in the research); (b) the conceptual (the theoretical representation of some aspect of reality); and the methodological (the approach taken to investigate a real-world problem or test theory). In empirical research, all three domains are usually involved, but researchers may emphasize each to different degrees. A distinguishing feature of research in JPP&M is that it usually starts with a real-world problem that has important consumer, marketing, and public policy implications (see Martin, Borah, and Scott 2021). Due to its substantive focus, JPP&M articles enjoy an eclectic use of conceptual foundations and methods to explore important real-world problems. In this commentary, we explore JPP&M's methodological domain by conducting an analysis of recent empirical research and providing insights based on our work.

**The Nature of JPP&M's Empirical Research (2017-2021)**

We analyzed and classified all contributions JPP&M published in volumes 36 to 40 (see Web Appendix for details). Of the 167 contributions, approximately two-thirds were empirical. Analysis of these articles found that just as theories are eclectically used in JPP&M, so are methods. Such a mix of methods has a long tradition at JPP&M and goes back to its first editor, Thomas Kinnear (1982. p. 2), who stated that: "All types of research procedures are valued by the journal, including surveys, both laboratory and field experiments, time series, and legal analysis."

Although lab and field experiments and studies based on observational data (often surveys) have been used most and in equal measure (see Table 1), qualitative studies are also common. There are no pronounced time trends and, overall, the articles over the most recent 5-

year period show a good mix of diverse methodological approaches, which we consider as a strength of JPP&M.

Table 1. Methodological approaches and data sources in JPP&M articles (2017-2021)

|  | Percentage of Articles with Data[1] | Percentage of All Articles[2] |
| --- | --- | --- |
| Methodological approaches |  |  |
|     Qualitative studies | 28% | 18% |
|     Experiments | 44% | 28% |
|     Studies based on observational data | 45% | 29% |
| Data sources |  |  |
|     mTurk and Prolific Academic | 33% | 22% |
|     Research-relevant (sub)populations | 24% | 16% |
|     Market research companies | 19% | 12% |
|     Students | 18% | 11% |
|     Informants in qualitative research | 18% | 11% |
|     Secondary data sources | 15% | 10% |
|     Other sources (e.g., ads, tweets) | 13% | 8% |

Notes: [1] Percentages do not sum up to 100% because some articles use multiple methodological approaches or have more than one data source. [2] 60 out of 167 articles (35.93%) did not include data.

Given the substantive and professed policy-relevant nature of JPP&M, it is somewhat surprising that relatively few secondary data sources are used and that the most prevalent data come from online panel survey firms. We now explore these two issues in greater detail.

**Using secondary data to provide real-world evidence for policy recommendations**

The most prevalent data sources in JPP&M articles are Amazon Mechanical Turk and, to a much lesser extent, Prolific Academic. In many instances, these data sources are only a portion

of the data reported in an article. Nonetheless, for a journal that aims to provide relevant public policy recommendations, the number of studies based on MTurk or Prolific Academic data seems high, especially since the data collected via these means often involved hypothetical scenario studies. For those relying on such data to address policy issues, we recommend augmenting them with secondary data sources.

A recent JPP&M example of this recommended approach is provided by Ghotbi, Dhar, and Weinberg (2021), who studied whether consumers who choose a diet, rather than a regular, soft drink might consume more calories during a meal. Theory suggests that a "healthy" choice may license a consumer to indulge by adding an unhealthy product. Ghotbi et al. used a large secondary data set on food-away-from-home meal consumption, supplemented by additional data on caloric content of food, to study this issue and found that, contrary to licensing theory, those who ordered a diet (rather than regular) drink actually consumed fewer calories within a meal.

There are many secondary data sets used by policy researchers in JPP&M, with examples including stock market data, annual reports, purchase data from retailers and research firms, census data, health insurance data from the federal government, and many more. Particularly promising opportunities exist when researchers merge multiple publicly available secondary data sets to study a research question (e.g., Liu, Gauri, and Jindal 2021). Moreover, the increased availability of social media and other online data has made it possible to extract valuable information from social media posts as well as online reviews. Recent examples of this approach have studied issues such as children's online privacy (Fox and Hoy 2019), far-right opposition to multicultural marketing (Ulver and Laurell 2020), or gambling advertising (Rossi et al. 2021).

For authors interested in building strong policy implications for substantive problems, we encourage the creative use of secondary data.

**Finding participants for policy-relevant subpopulations with low incidence**

A critical decision that any researcher must make is selecting a sampling frame, and this is especially important with vulnerable (and rare) populations that are often relevant to policy research. Reliance on online data platforms can raise sampling challenges for policy researchers. At any given time, the estimated number of active workers on mTurk ranges from 2500 to 7500.[1] While one could use such panels to study high-incidence-rate subpopulations (e.g., subprime borrowers; 34.8% of Americans), it would be insufficient with lower incidence rates. For example, Rayburn, Mason, and Volkers (2020) wished to study parents whose children were born in a neonatal intensive care unit. An optimistic calculation suggests that only 11 such participants exist on mTurk[2], unless there is misrepresentation or imbalance (see Sharpe-Wessling, Huber and Netzer 2017). Some have suggested to slowly grow panel subpopulations over time, yet attrition may outpace additions depending on incidence rates (e.g., the half-life on mTurk is approximately 400 days; see Difallay, Filatova, and Ipeirotis 2018). For Rayburn, Mason, and Volkers (2020), the use of panels would have been futile or very expensive.

To address this situation, scholars must intentionally bias their sampling frames to seek data with a theoretically relevant sample. Although one could turn to large commercial survey panels, such panels can be expensive, and it may be possible to partner with organizations that can offer their audiences as participants. For example, Rayburn, Mason, and Volkers (2020) ended up

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[1] Although more than 100K-200K workers are eligible, the expected number of worker available to work at any given time is closer to 2,450 workers once we account for inactivity (Difallah, Filatova and Ipeirotis 2018).
[2] If (optimistically) 7500 participants are active, the birth rate is 1.1% per CDC and 14.4% of those births result in NICU per March of Dimes (https://bit.ly/NICUstats).

collaborating with a neonatal product company to reach 348 consumers. Another example is Cornwell et al. (2021), who recruited parent and child dyads from preschools to study food choices. Others turned to theoretically-justified intercepts in other countries. For example, Arli and Cadeaux (2017) recruited participants both in a red-light district and a university district in Indonesia. Hasan, Lowe, and Petrovici (2019) identified 351 subsistence customers in Bangladesh at tea stalls and kiosks offering money transfers. In all these studies, researchers embraced purposeful selection in high-incidence subpopulations, seeking out partnerships and experimentation opportunities with companies and groups that cater to subpopulations of policy interest – a model that could be more widely employed by JPP&M contributors.

**Conclusion**

From its inception, JPP&M has embraced various methods to study marketing and public policy. Our analysis of the most recent 5 years of publications shows this to be the case; JPP&M continues to live up to the original vision for the journal. Given the unique substantive nature of policy-relevant topics, we encourage the field to consider embracing and using sources of data beyond online panels such as MTurk and to be creative in identifying the unique subpopulations that are most often the focus of policymakers.

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# Web Appendix

All contributions to JPP&M published in volumes 36 (2017) to 40 (2021) were analyzed. In total, the five volumes contained 167 contributions (including editorials, comments and two in memoriams). After eliminating non-original, non-empirical articles (including purely conceptual articles and two meta-analyses), we were left with 107 contributions (64%), and we then classified articles along several dimensions (as represented in Table 1 in the paper and Table A1 in this appendix).

*Methodological Approaches*

Experiments (both lab and field) and studies based on observational data were most prevalent. The latter include correlational analyses, factor and path models estimated on survey data, cross-sectional and longitudinal econometric models, and segmentation analyses. Qualitative data were also well represented within JPP&M publications. Overall, there is a good mix of diverse methodological approaches, with no pronounced time trends during the most recent 5-year period.

*Data Sources*

In terms of data sources, data collected from Amazon Mechanical Turk and, to a much lesser extent, Prolific Academic were most common, with 34 percent of articles relying on these types of data at least to some extent. Twelve of the articles (33% of all articles containing MTurk-type data) used data collected via MTurk and Prolific Academic exclusively, and 23 used data collected from either MTurk/Prolific Academic or students. Data obtained from students were much less common than data collected online (18%).

Data collected from panels organized by various market research companies were relatively common (19% of empirical articles contained such data), as was the use of research-

relevant (sub)populations (24%). Examples in the latter category include respondents in subsistence marketplaces, patrons at fast food restaurants, representative samples of consumers in different countries, or migrant workers, to name a few. Qualitative research usually includes in-depth interviews with small samples of informants (present in 18% of studies, with samples as small as 8), although other methods such as archival research, participant observation, videos, diary studies, photo elicitation, case studies, and netnographies were also reported. Secondary data (collected for purposes other than the one being investigated in a paper) were used in 15 percent of articles.

Table A1. Methodological approaches and data sources in JPP&M articles (2017-2021)

| | 2017 | 2018 | 2019 | 2020 | 2021 | Total |
|---|---|---|---|---|---|---|
| **Methodological approaches** | | | | | | |
| Qualitative studies | 1 | 7 | 6 | 8 | 8 | 30 |
| | (.05) | (.33) | (.26) | (.33) | (.40) | (.28) |
| Experiments | 12 | 8 | 12 | 13 | 2 | 47 |
| | (.63) | (.38) | (.52) | (.54) | (.10) | (.44) |
| Observational data | 11 | 9 | 10 | 7 | 11 | 48 |
| | (.58) | (.43) | (.43) | (.29) | (.55) | (.45) |
| **Data sources** | | | | | | |
| Students | 3 | 2 | 5 | 7 | 2 | 19 |
| | (.16) | (.10) | (.22) | (.29) | (.10) | (.18) |
| MTurk and Prolific Academic | 7 | 4 | 10 | 13 | 2 | 36 |
| | (.37) | (.19) | (.43) | (.54) | (.10) | (.34) |
| Panels of market research companies | 9 | 3 | 3 | 3 | 2 | 20 |
| | (.47) | (.14) | (.13) | (.13) | (.10) | (.19) |
| Respondents relevant for research purpose | 6 | 4 | 7 | 6 | 3 | 26 |
| | (.32) | (.19) | (.30) | (.25) | (.15) | (.24) |
| Informants in qualitative research | 1 | 7 | 4 | 4 | 3 | 19 |
| | (.05) | (.33) | (.17) | (.17) | (.15) | (.18) |
| Secondary data sources | 1 | 4 | 4 | 1 | 6 | 16 |
| | (.05) | (.19) | (.17) | (.04) | (.30) | (.15) |
| Other sources (e.g., ads, tweets) | 0 | 1 | 4 | 3 | 6 | 14 |
| | (.00) | (.05) | (.17) | (.13) | (.30) | (.13) |

Note: The first entry in each cell refers to the number of articles of a given kind, the second entry (in parentheses) to the percentage per year or of the total number. Percentages do not sum to 1 because the categories are not mutually exclusive (e.g., a given study may contain both experiments and analyses based on observational studies).