

IAB Evaluation Study of Methods Used to Assess the Effectiveness of Advertising on the Internet

ARF Research Quality Council

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IAB Study of IAE

- The effectiveness of internet advertising has been measured for more than a decade
- However, there are many who remain uncertain about, and others who are dissatisfied with, whether most of the studies that measure the effectiveness of this form of advertising generate accurate (reliable and valid) results – ones that can be interpreted and applied with confidence by those for whom these studies are conducted
 - For the most part, these methodologies have sought to measure the branding impact of an advertising campaign by conducting a survey of consumers exposed to the campaign and consumers not exposed to the campaign
 - These studies include site intercept studies that sample persons in real-time as they are using the internet
 - It also is possible, and sometimes the case, that these studies may sample members of existing online panels

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- Thus, in August 2008, the IAB commissioned an objective third-party evaluation of the predominant methods that were being used to assess internet advertising effectiveness (IAE)
- To conduct the study, input was sought from many executives and other practitioners within the internet advertising industry
 - They provided a wealth of information both verbally and in the form of print and online materials
- Internet searches and other traditional academic methods to locate publications that were relevant to the assignment also were employed
- The IAB asked that the evaluation be straight-forward in terms of presenting an expert methodological assessment of the reliability and the validity of the predominant IAE research methods now used
- The IAB also asked that recommendations be made about how to improve current approaches to measuring IAE, if in fact, improvements were judged to be needed

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- To address the validity and reliability of the methods used to assess IAE, two methodological/statistical frameworks from the social and behavioral sciences were employed
 - The first framework is identified with the seminal work of research methodologist, Donald T. Campbell, and identifies four major forms of validity: Internal, External, Construct, and Statistical Conclusion
 - The second framework comes from the field of survey research and differentiates sources of bias and variance into Errors of Representation and Errors of Measurement
- Together, these two frameworks provide a comprehensive perspective on all major threats to the reliability and validity of qualitative and quantitative social and behavioral science research studies, including those that strive to measure IAE

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- The type of information that was gathered specifically for this IAB project addressed the following major issues:
 - External Validity and Coverage Error Issues
 - External Validity and Sampling Error Issues
 - External Validity and Nonresponse Error Issues
 - Statistical Conclusion Validity, Weighting, and Adjustment Error Issues
 - Construct Validity, Specification Error, and Other Measurement Error Issues
 - Internal Validity, Allocation to Treatment and Control/Comparison Groups, and Causal Inference Issues

Findings of the IAB Study of IAE

- For many of the topics that were investigated the evaluation concluded that there were not any problems of a *nonignorable* magnitude associated with the reliability and validity of the findings of IAE studies
- In other cases, there are ample reasons to suspect the many IAE studies are likely in error due to problems with reliability and/or validity
 - But, ultimately that cannot be known with confidence due to a current lack of valid empirical knowledge concerning the extent to which these problems may invalidate the findings of many IAE studies

Findings of the IAB Study of IAE

- There are solid aspects to the manner and methodological rigor by which IAE is measured by the predominate companies currently doing these types of research studies
- These include:
 - Generally robust coverage of the target population by the sampling frames that are used, in particular as it applies to the “test” groups that are sampled
 - Use of random systematic sampling, which yields a representative initially designated sample of the target population
 - Use of well-constructed questionnaires with good Construct Validity

Findings of the IAB Study of IAE

- However, there are several troubling aspects to much of this research that puts the validity of the findings of most of the studies in jeopardy
 - Their External Validity is threatened primarily by the extremely low response rates achieved in most IAE studies
 - Their Internal Validity is threatened by the near exclusive use of quasi-experimental research designs rather than classic experimental designs
 - Their overall validity also is threatened by a lack of valid empirical evidence that the statistical weighting adjustments used in most IAE studies adequately correct for the biasing effects of the various methodological limitations of the studies
- This is not to say that all the studies currently being conducted to assess IAE are reaching incorrect conclusions
- Rather, it is to say that one cannot be confident whether the findings of most IAE studies are right or wrong

Implications of the IAB Study of IAE

- In thinking about why the current balance of strengths and weaknesses in the measurement of IAE exists, it is important to keep in mind that **the senior researchers at the predominant companies that conduct these studies are aware of the preferred research methods that can be used to generate research findings with strong External Validity and strong Internal Validity**
- However, the online advertising industry marketplace heretofore has neither demanded nor been willing to fund the type of IAE studies that can generate findings known to have strong Internal Validity and External Validity
- Based on the research companies, publishers, and advertisers spoken to for this evaluation, **it appears that as currently perceived by most who fund IAE studies, the cost and complexity of funding studies known to be valid versus the benefits of doing this does not support the use of the more rigorous methods**

Recommendations for Improving the Study of IAE

- To help resolve the current uncertainties, a series of new methodological and statistical research studies should be funded *by the online advertising industry* to address the three key knowledge gaps:
 1. New studies are needed which provide a direct comparison of the findings from a classic experimental design with the findings from an otherwise comparable quasi-experimental design.
 - This series of studies would address the unknowns associated with whether the findings from quasi-experimental designs used to measure IAE can be used with confidence to determine if exposure to an ad campaign actually causes any of the outcomes desired by advertisers and publishers

Recommendations for Improving the Study of IAE

2. Other new studies are needed to investigate the size and nature of the nonresponse bias and other problems which may results from the extremely low response rates currently experienced by most IAE studies
 - This series of studies would address the unknowns associated with whether the findings from IAE studies with very low response rates have any External Validity beyond the proportionately small number of persons who end up providing data for the IAE studies
3. Within each of the above series of studies additional analyses should be conducted to determine whether statistical weighting adjustments can reduce (or possibly eliminate) any of the biases to a negligible (i.e., ignorable) level