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## **The Role of Meta-Analysis in Marketing and Consumer Behavior Research: Stimulator Or Inhibitor?**

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# The Role of Meta-analysis in Marketing and Consumer Behavior Research: Stimulator or Inhibitor?

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## EXTENDED ABSTRACT

Several meta-analyses have been carried out in marketing and consumer behavior research, leading to a high acceptance of the method. However, the implications of the implementation of meta-analysis for future research efforts in marketing and consumer behavior research are seldom discussed.

Meta-analysis critically analyzes and integrates empirical research on relevant theories, tries to resolve conflicts in the literature, creates generalizations, seeks the limits and modifiers of those generalizations, and attempts to identify central issues for future research. The identification of future research issues may lead researchers to further research particular topics; journals that publish meta-analytic findings may serve as catalysts for future research efforts. Others argue for a decrease in future research efforts following the implementation of a meta-analysis. If a relationship formerly assumed to be strong is proved by a meta-analysis to be very weak, to be non-significant or to be a methodological artifact, researchers may lose interest in further research on this particular research topic. Also, a high degree of generalization of the results in a meta-analysis may lead to less future research efforts, since proven law-like generalizations may be accepted without the need for further challenges.

In order to investigate assumptions of the role of meta-analysis in marketing and consumer research, we carried out content and citation analysis of 29 meta-analyses that were published in marketing and consumer research journals until 1997. For the citation analysis, we used the science citation index (SCI).

The results of the comparison of the average amount of publications per year for the included studies and the following studies indicated no difference for the sum total of all meta-analyses. At first glance, it seems that meta-analysis in marketing and consumer research serve neither as inhibitor nor stimulator for future research efforts. However, some differences of the ratio of the following to included studies were found for subgroups of meta-analyses, which were developed based on our hypotheses. Significant differences were obtained based on the strength of results and the importance of the journal. For meta-analyses with stronger results, the ratio was higher than for meta-analyses with weak results. Meta-analyses published in top journals were also, on average, followed by more studies than those published in other journals. The degree of generalization and the intention of future research efforts showed no difference for the subgroups of meta-analyses. A regression model indicated that the predictors show obviously interplay in the explanation of the differences in the amount of research efforts.

Dynamic aspects were evaluated through the correlations between the number of studies per year (following or included) and time (year of publication). The comparison between the measures for included studies and following studies indicates more dynamics in the research efforts after a meta-analysis has been implemented. Significant differences for subgroups were obtained only for the importance of the journal.

Our analysis identifies the role of meta-analysis for future research efforts and as such, confirms the necessity of research synthesis provided by meta-analytic approaches, particularly in relation to future research efforts; meta-analyses serve as stimulators for future research. In this sense, meta-analysis serves its

original purpose within science, as first developed by methodologists of meta-analysis. Scientists could influence future research efforts through meta-analysis as well as through publications in top journals. Reviewers of such journals should also take into account that the acceptance or rejection of a meta-analysis might influence future research efforts regarding particular research.

Our study has several limitations, however, which should be taken as motivation for further improvement and refinement. First, our sample is quite small, which limits power. It certainly could be meaningfully enhanced within the next few years by considering further meta-analyses published after 1997. Secondly, as a few meta-analyses from journals were not indexed by the SCI and could therefore not be included, the sample was reduced. Furthermore, moderators such as further meta-analyses on the same or a similar research topic may influence the relationships under investigation. It would also be interesting to focus more on aspects of theory and how scientists respond. In particular, if revolutionary concepts and theories develop, future research may also be inhibited. However, careful consideration of the research topics of the meta-analyses led us to the conclusion that no true revolution occurred, but rather evolutionary development. Finally, a causal link between the meta-analysis and citation patterns, as assumed in our research, cannot accurately be assessed by a regression analysis. As for applications of regression models in general, other relationships are possible and can and should be taken into consideration. Unfortunately, rigorous examination of the causality (as could be provided by experimental designs) is not possible in our study. A possible solution may be a triangulation of methods, such as collecting results of a survey amongst scientists, along with their perception of the impact of meta-analyses.

## REFERENCES

- Abernethy, Avery M. and George R. Franke (1996), "The Information Content of Advertising: A Meta-Analysis," *Journal of Advertising*, 25 (2), 1-17.
- Andrews, Rick L. and George R. Franke (1991), "The Determinants of Cigarette Consumption: A Meta-Analysis," *Journal of Public Policy & Marketing*, 10 (1), 81-100.
- Assmus, Gert, John U. Farley, and Donald R. Lehmann (1984), "How Advertising Affect Sales: Meta-Analysis of Econometric Results," *Journal of Marketing Research*, 21 (February), 65-74.
- Barwise, Patrick (1995), "Good Empirical Generalisations," *Marketing Science*, 14 (3), G29-G35.
- Batra, Rajeev, Donald R. Lehmann, Joanne Burke, and Jae Pae (1995), "When Does Advertising Have an Impact? A Study of Tracking Data," *Journal of Advertising Research*, 35 (September/October), 19-32.
- Baumgartner, Hans and Rik Pieters (2003), "The Structural Influence of Marketing Journals: A Citation Analysis of the Discipline and Its Subareas Over Time," *Journal of Marketing*, 67, 123-39.
- Biswas, Abhijit, Elizabeth J. Wilson, and Jane W. Licata (1993), "Reference Pricing Studies in Marketing: A Synthesis of Research Results," *Journal of Business Research*, 27 (3), 239-56.

- Brown, Stephen P. and Robert A. Peterson (1993), "Antecedents and Consequences of Salesperson Job Satisfaction: Meta-Analysis and Assessment of Causal Effects," *Journal of Marketing Research*, 30 (February), 63-77.
- Brown, Steven P. and Douglas M. Stayman (1992), "Antecedents and Consequences of Attitude Toward the Ad: A Meta-Analysis," *Journal of Consumer Research*, 19, 34-51.
- Campbell, Donald T. (1974), "Evolutionary Epistemology," *The Philosophy of Karl Popper. Book I*, ed. Paul Arthur Schilpp, La Salle, Ill: Open Court, 413-63.
- Capon, Noel, John U. Farley, and Scott Hoenig (1990), "Determinants of Financial Performance: A Meta-Analysis," *Management Science*, 36 (10), 1143-59.
- Chetty, Sylvie K. and R. T. Hamilton (1993), "Firm-Level Determinants of Export Performance: A Meta-Analysis," *International Marketing Review*, 10 (3), 26-34.
- Churchill, Gilbert A., Jr., Neil M. Ford, Steven W. Walker, and Orville C. Walker, Jr. (1985), "The Determinants of Salesperson Performance: A Meta-Analysis," *Journal of Marketing Research*, 22, 103-18.
- Churchill, Gilbert A. and J. Paul Peter (1984), "Research Design Effects on the Reliability of Rating Scales: A Meta-Analysis," *Journal of Marketing Research*, 21 (November), 360-75.
- Clarke, D.G. (1976), "Econometric Measurement of the Duration of Advertising Effects on Sales," *Journal of Marketing Research*, 13 (November), 345-57.
- Cohen, Aaron and Urs E. Gattiker (1994), "Rewards and Organizational Commitment Across Structural Characteristics: A Meta-Analysis," *Journal of Business & Psychology*, 9 (2), 137-57.
- Cohen, Jacob (1977), *Statistical Power Analysis for the Behavioral Sciences*, New York: Academic Press.
- Cooper, Harris and Larry V. Hedges (1994), "Research Synthesis as a Scientific Enterprise," *The Handbook of Research Synthesis*, ed. Harris Cooper and Larry V. Hedges, New York: Russell Sage Foundation, 3-14.
- Cox III, Eli P., Michael S. Wogalter, Sara L. Stokes, and Elizabeth J. Tipton Murff (1997), "Do Product Warnings Increase Safe Behavior?," *Journal of Public Policy & Marketing*, 16 (2), 195-204.
- Crouch, Geoffrey I. (1996), "Demand Elasticities in International Marketing," *Journal of Business Research*, 36 (2), 117-36.
- Dant, Rajiv P., Audhesh K. Paswan, and Patrick J. Kaufman (1996), "What We Know About Ownership Redirection in Franchising: A Meta-Analysis," *Journal of Retailing*, 72 (4), 429-44.
- Dekimpe, M. G. and Dominique M. Hanssens (1995), "Empirical Generalizations About Market Evolution and Stationarity," *Marketing Science*, 14 (3), G109-G21.
- Eagly, Alice H. and Wendy Wood (1994), "Using Research Synthesis to Plan Future Research," *The Handbook of Research Synthesis*, ed. Harris Cooper and Larry V. Hedges, New York: Russell Sage Foundation, 485-500.
- Ehrenberg, A. S. C. (1993), "Even the Social Sciences Can Have Laws," *Nature*, 365, 385.
- Grewal, Dhruv, Sukumar Kavanoor, Edward F. Fern, Carolyn Costley, and James Barnes (1997), "Comparative Versus Noncomparative Advertising: A Meta-Analysis," *Journal of Marketing*, 61 (October), 1-15.
- Heath, Timothy B. and Subimal Chatterjee (1995), "Asymmetric Decoy Effects on Lower-Quality versus Higher-Quality Brands: Meta-analytic and Experimental Evidence," *Journal of Consumer Research*, 22 (December), 268-84.
- Hite, Robert E. and Cynthia Fraser (1988), "Meta-Analysis of Attitudes Toward Advertising by Professionals," *Journal of Marketing*, 52, 95-105.
- Hult, Thomas M., William T. Neese, and R. Edward Bashaw (1997), "Faculty Perceptions of Marketing Journals," *Journal of Marketing Education*, 19 (1), 37-52.
- Hunt, Shelby D. (1989), "Naturalistic, Humanistic, and Interpretive Inquiry: Challenges and Ultimate Potential," *Interpretive Consumer Research*, ed. Elizabeth C. Hirschman, Provo, UT: Association for Consumer Research, 185-97.
- \_\_\_\_\_ (1991), "Positivism and Paradigm Dominance in Consumer Research: Toward Critical Pluralism and Rapprochement," *Journal of Consumer Research*, 18 (June), 32-44.
- Kuhn, Thomas S. (1962), *The Structure of Scientific Revolutions*, Chicago: University of Chicago Press.
- Leone, Robert P. and Randall L. Schultz (1980), "A Study of Marketing Generalizations," *Journal of Marketing*, 44 (Winter), 10-18.
- Lodish, Leonard M., Magid Abraham, Stuart Kalmenson, Jeanne Livelstoerger, Beth Lubetkin, Bruce Richardson, and Mary Ellen Stevens (1995a), "How TV Advertising Works: A Meta-Analysis of 389 Real-World Split-Cable TV Advertising Experiments," *Journal of Marketing Research*, 32, 125-39.
- Lodish, Leonard M., Magid M. Abraham, Jeanne Livelstoerger, Beth Lubetkin, Bruce Richardson, and Mary Ellen Stevens (1995b), "A Summary of Fifty-Five In-Market Experimental Estimates of the Long-Term Effect of TV Advertising," *Marketing Science*, 14 (3), G133-G40.
- Madden, Charles S., Richard W. Easley, and Marc G. Dunn (1995), "How Journal Editors View Replication Research," *Journal of Advertising*, 24 (4), 77-87.
- Martin, Mary C. (1997), "Children's Understanding of the Intent of Advertising: A Meta-Analysis," *Journal of Public Policy & Marketing*, 16 (2), 205-16.
- Montoya-Weiss, M.M. and Roger Calantone (1994), "Determinants of New-Product Performance: A Review and Meta-Analysis," *Journal of Product Innovation Management*, 11, 397-417.
- Nersessian, Nancy Ed. (1987), *The Process of Science*, Dordrecht: Nijhoff.
- Neuliep, James W. and Rick Crandall (1993), "Reviewer Bias Against Replication Research," *Journal of Social Behavior and Personality*, 8 (6), 22-29.
- Peter, J. Paul and Gilbert A. Churchill, Jr. (1986), "Relationships Among Research Design Choices and Psychometric Properties of Rating Scales: A Meta-Analysis," *Journal of Marketing Research*, 23, 1-10.
- Peterson, Richard A. and A.J.P. Jolibert (1995), "A Meta-Analysis of Country-of-Origin-Effects," *Journal of International Business Studies*, 26, 883-900.
- Peterson, Robert A. (1994), "A Meta-Analysis of Cronbach's Coefficient Alpha," *Journal of Consumer Research*, 21 (September), 381-91.
- \_\_\_\_\_ (1997), "A Quantitative Analysis of Rating-Scale Response Variability," *Marketing Letters*, 8 (1), 9-21.

- Peterson, Robert A., Gerald Albaum, and Richard F. Beltramini (1985), "A Meta-Analysis of Effects Sizes in Consumer Behavior Experiments," *Journal of Consumer Research*, 12, 97-103.
- Rao, Akshay R. and Kent B. Monroe (1989), "The Effect of Price, Brand Name, and Store Name on Buyers' Perceptions of Product Quality: An Integrative Review," *Journal of Marketing Research*, 26, 351-57.
- Rosenthal, Robert and Donald B. Rubin (1979), "A Note on Percent Variance Explained as a Measure of the Importance of Effects," *Journal of Applied Social Psychology*, 9 (5), 395-96.
- Sethuraman, Raj (1995), "A Meta-Analysis of National Brand and Store Brand Cross-Promotional Price Elasticities," *Marketing Letters*, 6 (4), 275-86.
- Sethuraman, Raj and Gerard J. Tellis (1991), "An Analysis of the Tradeoff Between Advertising and Price Discounting," *Journal of Marketing Research*, 28 (May), 160-74.
- Sheppard, Blair H., Jon Hartwick, and Paul R. Warshaw (1988), "The Theory of Reasoned Action: A Meta-Analysis of Past Research With Recommendations for Modifications and Future Research," *Journal of Consumer Research*, 15 (3), 325-43.
- Simon, Herbert A. (1968), "On Judging the Plausibility of Theories," *Logic, Methodology, and Philosophy of Science III*, ed. B. Van Rootselaar and J. F. Staal, Amsterdam: North-Holland, 439-59.
- Sultan, Fareena, John U. Farley, and Donald R. Lehmann (1990), "A Meta-Analysis of Applications of Diffusion Models," *Journal of Marketing Research*, 27, 70-77.
- Szymanski, David M., Sundar G. Bharadwaj, and Rajan P. Varadarajan (1993), "An Analysis of the Market Share-Profitability Relationship," *Journal of Marketing*, 57, 1-18.
- Szymanski, David M. and Paul S. Busch (1987), "Identifying the Generics-Prone Consumer: A Meta-Analysis," *Journal of Marketing Research*, 24, 425-31.
- Szymanski, David M., Lisa C. Troy, and Sundar G. Bharadwaj (1995), "Order of Entry and Business Performance: An Empirical Synthesis and Reexamination," *Journal of Marketing*, 59, 17-33.
- Tellis, G.J. (1988), "The Price Elasticity of Selective Demand: A Meta-Analysis of Econometric Models of Sales," *Journal of Marketing Research*, 25, 331-41.
- Theoharakis, Vasilis and Andrew Hirst (2002), "Perceptual Differences of Marketing Journals: A Worldwide Perspective," *Marketing Letters*, 13 (4), 389-402.
- Tongren, Hale N. (1988), "Determinant Behavior Characteristics of Older Consumers," *Journal of Consumer Affairs*, 22 (1), 136-57.
- Trappey, Charles (1996), "A Meta-Analysis of Consumer Choice and Subliminal Advertising," *Psychology & Marketing*, 13 (5), 517-30.
- VanderWerf, Pieter A. and John F. Mahon (1997), "Meta-Analysis of the Impact of Research Methods on Findings of First-Mover Advantage," *Management Science*, 43 (11), 1510-19.
- Woodside, Arch G., Thomas M. Beretich, and Marc A. Lauricella (1993), "A Meta-Analysis of Effect Sizes Based on Direct Marketing Campaigns," *Journal of Direct Marketing*, 7 (2), 19-33.
- Yu, Julie and Harris Cooper (1983), "A Quantitative Review of Research Design Effects on Response Rates to Questionnaires," *Journal of Marketing Research*, 20 (February), 36-44.