# Chapter 9 Analytics Overuse in Advertising and Promotion Budget Forecasting

**Burçin Güçlü** Universitat Ramon LLull, Spain

Miguel-Ángel Canela University of Navarra, Spain

# ABSTRACT

Several studies have recently raised a common concern in the field of management, which is the overspending in marketing activities. In this paper, we propose and empirically test that overspending in marketing investments is an unfortunate outcome of information overload, in a sense that managers who confront too many risk informants in their decision environment tend to overinvest in marketing activities due to the overemphasis on the environmental risk. In a longitudinal experiment, where we manipulated the amount of information through marketing analytics, we demonstrate that firms employing simple marketing analytics are less prone to increase their marketing expenditures due to the fear of losing customers, and have a lower expectancy that their competitors will increase their brand-level advertising and promotional expenditures, compared to firms using a combination of simple and complex marketing analytics. Moreover, we demonstrate that firms employing simple marketing analytics keep their overall marketing spending at a lower level, and spend less in brand-level marketing, especially in promotional activities, compared to when using a combination of simple and complex marketing analytics.

Procter & Gamble is the biggest advertiser in the US, the world's biggest advertising market, and its decisions influence those of other big spenders. In 2010, P&G spent \$3.2bn in America, almost half as much again as second placed General Motors. (Financial Times, March 7<sup>th</sup> 2012)

*Efficient market theory suggests that marketing behavior, on average, will be pushed toward optimal behavior or the enterprise will fail. (Lilien 1979)* 

DOI: 10.4018/978-1-5225-0654-6.ch009

### INTRODUCTION

A widely recognized phenomenon is that firms overspend in marketing activities (Hanssens et al., 2001; Sethuraman et al., 2011), meaning that their actual marketing expenditures overpass their forecasted budget driven by normative models (Dekimpe et al., 2007). Although several advances have been made to address potential drivers of suboptimal investment decisions in the context of marketing strategy (Joseph and Richardson, 2002; Lilien, 2011; Mintz, 2012; Mintz & Currim, 2013), there is little understanding of what drives, specifically, overspending in marketing investments.

To the best of our knowledge, formal models of overspending in the literature overemphasize economic effectiveness (Srinivasan et al., 2011), in a sense that they integrate econometric concepts of synergy, carryover and time effects in assessing the effectiveness of marketing investments (Shankar, 2008). In order to explain why firms cannot sustain economic effectiveness in marketing expenditures, scholars from diverse disciplines mainly follow a rational approach by attributing the persistence of suboptimal investment decisions to managers' strategic considerations (Rapoport & Chammah, 1965; Thisse & Vives, 1988), lack of financial accountability (Mintz, 2012; Mintz & Currim, 2013), exposure to rigid incentive systems (Jensen & Meckling, 1976).

Although the prior literature provides crucial guidelines to take an initial step for this research, it is subject to several shortcomings. First of all, overspending does not perish when strategic considerations die out with decreased market concentration (Naik & Raman, 2003). Second, the level of analysis is not consistent among studies. For instance, many studies take into account the suboptimal decisions of one individual, mainly of the CEO, in order to associate a manager's suboptimal decisions with organizational outcomes (Hirshleifer et al., 2012; Malmendier & Tate, 2005). On the other hand, there are also studies that argue that the impact of an individual's suboptimal decision can be observed at the organizational level, regardless of the level of the individual (Dutton & Jackson, 1987). The lack of significant work on the topic, from our perspective, pertains to this divergence on the level of analysis.

The primary objective of the current study is to empirically test a behavioral model of overspending in marketing activities in a competitive context stripped off from incentive motives, where the information necessary to assess the economic effectiveness of investment decisions is revealed through the market research tools. To be more specific, controlling for competitive dynamics and lack of financial metrics, our goal is to show that overspending in marketing investments is an unfortunate outcome of the information overload, in a sense that managers who confront too many risk informants in their decision environment tend to overinvest in marketing activities because they overestimate the environmental risk on the demand side.

We conducted a longitudinal market experiment using StratSim (Deighan et al., 2006), a management simulation game, in which we manipulated the availability of market research tools in order to observe how market information disclosed in different levels of restrictions alters investments in marketing mix activities. We demonstrated that firms employing simple marketing analytics are less prone to increase their marketing expenditures due to the fear of losing customers, and have a lower expectancy that their competitors will increase their brand-level advertising and promotional expenditures, compared to firms using a combination of simple and complex marketing analytics. We also demonstrated that firms employing simple marketing spending at a lower level, and spend less in brand-level marketing, especially in promotional activities, compared to when using a combination of simple analytics.

27 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/analytics-overuse-in-advertising-and-promotionbudget-forecasting/166520

# **Related Content**

#### Prediction Length of Stay with Neural Network Trained by Particle Swarm Optimization

Azadeh Oliyaeiand Zahra Aghababaee (2017). International Journal of Big Data and Analytics in Healthcare (pp. 21-38).

www.irma-international.org/article/prediction-length-of-stay-with-neural-network-trained-by-particle-swarmoptimization/204446

#### An Article on Big Data Analytics in Healthcare Applications and Challenges

Jaimin Navinchandra Undaviaand Atul Manubhai Patel (2022). Research Anthology on Big Data Analytics, Architectures, and Applications (pp. 1450-1457).

www.irma-international.org/chapter/an-article-on-big-data-analytics-in-healthcare-applications-and-challenges/291046

## Identifying the Factors Associated With Inpatient Admissions for Non-COVID-19 Illnesses: Application of Regression Analysis and NFL Theorem

Chamila K. Dissanayakeand Dinesh R. Pai (2022). *International Journal of Big Data and Analytics in Healthcare (pp. 1-24).* 

www.irma-international.org/article/identifying-the-factors-associated-with-inpatient-admissions-for-non-covid-19illnesses/312576

# Disruption Management in Urban Rail Transit System: A Simulation Based Optimization Approach

Erfan Hassannayebi, Arman Sajedinejadand Soheil Mardani (2018). Intelligent Transportation and Planning: Breakthroughs in Research and Practice (pp. 18-48).

www.irma-international.org/chapter/disruption-management-in-urban-rail-transit-system/197125

#### Data Analytics in the Pharmacology Domain

Maryam Qusay Yousif Helae, Dariush Ebrahimiand Fadi Alzhouri (2022). International Journal of Big Data and Analytics in Healthcare (pp. 1-16).

www.irma-international.org/article/data-analytics-in-the-pharmacology-domain/314229