The Information-Economics Perspective on Brand Equity

Tülin Erdem
New York University, USA
terdem@stern.nyu.edu

Joffre Swait
University of South Australia, Australia
Joffre.Swait@unisa.edu.au

now
the essence of knowledge
Boston — Delft

Foundations and Trends® in Marketing

Published, sold and distributed by:
now Publishers Inc.
PO Box 1024
Hanover, MA 02339
United States
Tel. +1-781-985-4510
www.nowpublishers.com
sales@nowpublishers.com

Outside North America:
now Publishers Inc.
PO Box 179
2600 AD Delft
The Netherlands
Tel. +31-6-51115274

The preferred citation for this publication is

T. Erdem and J. Swait. *The Information-Economics Perspective on Brand Equity*. Foundations and Trends® in Marketing, vol. 10, no. 1, pp. 1–59, 2016.

This Foundations and Trends® issue was typeset in LaTeX using a class file designed by Neal Parikh. Printed on acid-free paper.

ISBN: 978-1-68083-169-6

Foundations and Trends® in Marketing

Volume 10, Issue 1, 2016

Editorial Scope

Topics

Foundations and Trends® in Marketing publishes survey and tutorial articles in the following topics:

- B2B marketing
- Bayesian models
- Behavioral decision making
- Branding and brand equity
- Channel management
- Choice modeling
- Comparative market structure
- Competitive marketing strategy
- Conjoint analysis
- Customer equity
- Customer relationship management
- Game theoretic models
- Group choice and negotiation
- Discrete choice models
- Individual decision making
- Marketing decisions models
- Market forecasting
- Marketing information systems
- Market response models
- Market segmentation
- Market share analysis
- Multi-channel marketing
- New product diffusion
- Pricing models
- Product development
- Product innovation
- Sales forecasting
- Sales force management
- Sales promotion
- Services marketing
- Stochastic model

Information for Librarians

Foundations and Trends® in Marketing, 2016, Volume 10, 4 issues. ISSN paper version 1555-0753. ISSN online version 1555-0761. Also available as a combined paper and online subscription.

Foundations and Trends® in Marketing
Vol. 10, No. 1 (2016) 1–59

DOI: 10.1561/1700000041

The Information-Economics Perspective on Brand Equity

Tülin Erdem
New York University, USA
terdem@stern.nyu.edu

Joffre Swait
University of South Australia, Australia
Joffre.Swait@unisa.edu.au

Contents

Abstract

The focus of this monograph is the information-economics theoretic framework of brand equity. Adopting this view, Erdem and Swait [1998] argue that consumer-based brand equity is the value of a brand as a credible signal of a product's positioning. In their framework, the content, clarity, and credibility of the brand signal creates intangible benefits, enhances perceived quality, and decreases consumer-perceived risk and information costs, and hence increases consumer utility, which underlies the added value associated with a brand. The central (and motivating) construct in this view is the "credibility" of brands as signals.

T. Erdem and J. Swait. *The Information-Economics Perspective on Brand Equity*. Foundations and Trends® in Marketing, vol. 10, no. 1, pp. 1–59, 2016.

DOI: 10.1561/1700000041.

1

Introduction

Brands have a very long history. Proto-brands date back to the early Bronze Age (2250–2000 BCE) in the form of trade seals used in the Indus Valley (where Harappan civilization flourished) and Mesopotamia (which at that time hosted several civilizations such as Sumeria and Akkadia) [Moore and Susan, 2008]. “Modern” brands, on the other hand, first appeared in the early 16th century on whiskey distillers’ barrels.

Brands serve two main functions. They are conveyors of information (e.g., origin, quality), are image builders, and serve as symbols of identity. As conveyors of information, brands reduce risk and information costs, and enhance consumer quality perceptions [Erdem and Swait, 1998], and as conveyors of identity and meaning, brands embody emotional/experiential and symbolic/self-expressive associations and benefits [Aaker, 1991, 1996, Keller, 1993].

In its broadest sense, brand equity is the added value with which a brand endows a product [Farquhar, 1989]. Cognitive psychological views of brand equity have emphasized constructs such as brand awareness, brand associations (and uniqueness, favorableness, and strength of these brand associations, Keller, 1993), perceived quality, and brand loyalty as the main building blocks of brand equity [Aaker, 1991]. Although these frameworks have also emphasized the importance of emotional/experiential and symbolic/self-expressive associations in creating brand equity (and multiple dimensions of brand identity, such as anthropomorphic perceptions of brands, brand as symbols, and so on; see Aaker [1996]), the information-economics view of brand equity emphasizes the informational role brands play in the marketplace and the contribution of this role to overall brand equity [Erdem and Swait, 1998].

The focus of this monograph is the information-economics theoretic framework of brand equity. Adopting this view, Erdem and Swait [1998] argue that consumer-based brand equity is the value of a brand as a credible signal of a product's positioning. In their framework, the content, clarity, and credibility of the brand signal creates intangible benefits, enhances perceived quality, and decreases consumer-perceived risk and information costs, and hence increases consumer utility, which underlies the added value associated with a brand. The central (and motivating) construct in this view is the "credibility" of brands as signals.

In Section 2, we discuss the underpinnings of this framework of brand equity, and hence outline the analytical models of signaling under quality uncertainty, brand premia, and reputation. In Section 3, we outline this information-economics theoretic framework of brand equity in greater detail and discuss the empirical validation of the framework. In Section 4, we discuss the theoretical and empirical implications of the information-economic theoretic framework for various aspects of consumer decision-making, such as choice, consideration-set formation, choice dynamics, customer relationship management (CRM), formation of brand loyalty, and consumer price sensitivities and willingness to pay. Finally, in this section, we also discuss the implications for brand management, such as managing brand extensions, alliances, co-branding, and brand crisis. In Section 5, we discuss the validation of the basic framework across product categories and countries and over time. In Section 6, we conclude with avenues for future research.

References

D. A. Aaker. *Managing Brand Equity*. New York: The Free Press, 1991.

D. A. Aaker. *Building Strong Brands*. New York: The Free Press, 1996.

D. Ackerberg. Advertising, learning, and consumer choice in experience good markets: A structural empirical examination. *International Economic Review*, 44:1007–1040, 2003.

B. Anand and R. Shachar. Brands as beacons: A new source of loyalty to multiporduct firms. *Journal of Marketing Research*, 41(2):135–15, 2004.

P. A. Argenti and B. Druckenmiller. Reputation and the corporate brand. *Corporate Reputation Review*, 6(4):368–374, 2004.

L. M. B. Cabral. Stretching firm and brand reputation. *The RAND Journal of Economics*, 31(4):658–673, 2000.

L. M. B. Cabral. Umbrella branding with imperfect observability and moral hazard. *International Journal of Industrial Organization*, 27:206–213, 2009.

A. T. Ching. Consumer learning and heterogeneity: Dynamics of demand for prescription drugs after patent expiration. *International Journal of Industrial Organization*, 28(6):619–638, 2010.

A. T. Ching and M. Ishihara. The effects of detailing on prescribing decisions under quality uncertainty. *Quantitative Marketing and Economics*, 8(2): 123–165, 2010.

G. S. Crawford and M. Shum. Uncertainty and learning in pharmaceutical demand. *Econometrica*, 73(4):1137–1173, 2005.

B. de los Santos, A. Hortaçsu, and M. Wildenbeest. Testing models of consumer search using data on web browsing and purchasing behavior. *American Economic Review*, 102:2455–2480, 2012.

Z. Eckstein, D. Horsky, and Y. Raban. An empirical dynamic model of brand choice. Working paper 88, University of Rochester, 1988.

T. Erdem. An empirical analysis of umbrella branding. *Journal of Marketing Research*, 35(3):339–351, 1998.

T. Erdem and M. P. Keane. Decision-making under uncertainty: Capturing dynamic brand choice processes in turbulent consumer goods markets. *Marketing Science*, 15:1–20, 1996.

T. Erdem and B. Sun. An empirical investigation of spillover effects of marketing mix strategy in umbrella branding. *Journal of Marketing Research*, 39(4):408–420, 2002.

T. Erdem and J. Swait. Brand equity as a signaling phenomenon. *Journal of Consumer Psychology*, 7(2):131–157, 1998.

T. Erdem and J. Swait. Brand credibility, brand consideration, and choice. *Journal of Consumer Research*, 31:191–198, 2004.

T. Erdem, J. Swait, and J. Louviere. The impact of brand credibility on consumer price sensitivity. *International Journal of Research In Marketing*, 19:1–19, 2002.

T. Erdem, M. P. Keane, T. Sabri Öncü, and J. Strebel. Learning about computers: An analysis of information search and technology choice. *Quantitative Marketing and Economics*, 3(3):207–246, 2005.

T. Erdem, J. Swait, and A. Valenzuela. Brands as signals: A cross-country validation study. *Journal of Marketing*, 70(1):34–49, 2006.

T. Erdem, M. Keane, and B. Sun. A dynamic model of brand choice when price and advertising signal product quality. *Marketing Science*, 27(6): 1111–1125, 2008.

P. H. Farquhar. Managing brand equity. *Marketing Research*, pages 24–33, 1989.

J. Farrell. Prices as signals of quality. Ph.D. thesis, University of Oxford, 1980.

B. S. Gammoh, K. E. Voss, and G. Chakraborty. Consumer evaluation of brand alliance signals. *Psychology and Marketing*, 23(6):465–486, 2006.

E. Gerstner. Do higher prices signal higher quality. *Journal of Marketing Research*, 22:209–215, 1985.

A. Goldfarb, Q. Lu, and S. Moorthy. Measuring brand value in an equilibrium framework. *Marketing Science*, 28(1):69–86, 2009.

S. Grossman. The informational role of warranties and private disclosure about product quality. *Journal of Law and Economics*, 24:461–483, 1981.

E. Honka. Quantifying search and switching costs in the US auto insurance industry. *Rand Journal of Economics*, 45(4):845–887, 2014.

K. Jedidi, C. F. Mela, and S. Gupta. Managing advertising and promotion for long-run profitability. *Marketing Science*, 18(1):1–22, 1999.

K. L. Keller. Conceptualizing, measuring, and managing consumer-based brand equity. *Journal of Marketing*, 57:1–22, 1993.

K. L. Keller. *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*. Pearson Education, 4th edition edition, 2013.

R. E. Kihlstrom and M. H. Riordan. Advertising as a signal. *Journal of Political Economy*, 92:427–450, 1984.

J. Kim, J. Morris, and J. Swait. Antecedents of true brand loyalty. *Journal of Advertising*, 37(2):99–117, 2008.

J. Kim, B. Bronnenberg, and P. Albuquerque. Online demand under limited consumer search. *Marketing Science*, 29:1001–1023, 2010.

B. Klein and K. B. Leffler. The role of market forces in assuring contractual performance. *Journal of Political Economy*, 89(4):615–639, 1981.

S. Koulayev. Search with dirichlet priors: Estimation and implications for consumer demand. *Journal of Business and Economic Statistics*, 31(2): 226–239, 2013.

N. A. Lutz. Warranties as signals under consumer moral hazard. *The Rand Journal of Economics*, 20:239–255, 1989.

F. Mannering and C. Winston. Brand loyalty and the decline of american automobile firms. *Brookings Papers on Economic Activity — Microeconomics*, 2:67–114, 1991.

N. Mehta, S. Rajiv, and K. Srinivasan. Price uncertainty and consumer search: A structural model of consideration set formation. *Marketing Science*, 22: 58–84, 2003.

N. Mehta, X. Chen, and O. Narasimhan. Informing, transforming, and persuading: Disentangling the multiple effects of advertising on brand choice decisions. *Marketing Science*, 27(3):334–355, 2008.

P. Milgrom and J. Roberts. Prices and advertising signals of product quality. *Journal of Political Economy*, 94:796–821, 1986.

E. J. Miravete. Choosing the wrong calling plan? Ignorance and learning. *American Economic Review*, 93:297–310, 2003.

K. Moore and R. Susan. The birth of brand: 4000 years of branding history. *Published in: Business History*, 4(50):419–432, 2008.

S. Moorthy. Can brand extension signal brand quality. *Marketing Science*, 31:756–770, 2012.

S. Narayanan, P. Manchanda, and P. K. Chintagunta. Temporal differences in the role of marketing communication in new product categories. *Journal of Marketing Research*, 42(3):278–290, 2005.

S. Narayanan, P. K. Chintagunta, and E. J. Miravete. The role of self selection, usage uncertainty and learning in the demand for local telephone service. *Quantitative Marketing and Economics*, 5:1–34, 2006.

L. Philips. *The Economics of Imperfect Information.* New York: Cambridge University Press, 1988.

A. Rao, L. Qu, and R. W. Ruekert. Signaling unobservable product quality through a brand ally. *Journal of Marketing Research*, 36:258–268, May 1999.

J. H. Roberts and G. L. Urban. Modeling multiattribute utility, risk, and belief dynamics for new consumer durable brand choice. *Management Science*, 34(2):167–185, 1988.

D. E. M. Sappington and B. Wernerfelt. To brand or not to brand? A theoretical and empirical question. *The Journal of Business*, 58(3):279–293, 1985.

C. Shapiro. Premiums for high quality products as rents to reputation. *Quarterly Journal of Economics*, 98:659–680, 1983.

M. Spence. *Market Signaling: Informational Transfer in Hiring and Related Screening Processes.* Cambridge, MA: Harvard University Press, 1974.

J. Stiglitz. The causes and consequences of the dependence of quality on price. *Journal of Economic Literature*, 25:1–48, 1987.

J. Swait and R. Andrews. Enhancing scanner panel models with choice experiments. *Marketing Science*, 22(4):442–260, 2003.

J. Swait and T. Erdem. Temporal consistency of sales promotions and consumer preferences. *Journal of Marketing Research*, 39:304–320, 2002.

J. Swait and T. Erdem. Brand effects on choice and choice set formation under uncertainty. *Marketing Science*, 26(5):679–697, 2007.

J. Swait, T. Erdem, J. Louviere, and C. Dubelar. The equalization price: A measure of consumer perceived brand equity. *International Journal of Research in Marketing*, special issue on Brand Equity. 10:23–45, 1993.

J. Swait, T. Erdem, and T. Peters. Shocks to brand equity: An information economics perspective on the us auto industry 2006–2011. *Customer Needs and Solutions*, 1(4):317–332, 2014.

V. Swaminathan, R. J. Fox, and S. K. Reddy. The impact of brand extension introduction on choice. *Journal of Marketing*, 65:1–15, 2001.

J. Sweeney and J. Swait. The effects of brand credibility on customer loyalty. *Journal of Retail and Consumer Services*, 15:179–193, 2008.

J. Tirole. *The Theory of Industrial Organization*. Cambridge, MA: MIT Press, 1990.

Wall Street Journal Online. A chipotle education. Opinion: Review & Outlook Section, http://www.wsj.com/articles/a-chipotle-education-1450829240, December 22, 2015.

B. Wernerfelt. Umbrella branding as a signal of new product quality: An example of signalling by posting a bond. *The RAND Journal of Economics*, 19(3):458–466, 1988.

Y. Zhao, Y. Zhao, and K. Helsen. Consumer learning in a turbulent market environment: Modeling consumer choice dynamics after a product-harm crisis. 58:255–267, 2011.