

消费者交互作用对网络效应产品扩散的影响——基于产品生命周期的视角

赵良杰¹, 武邦涛³, 段文奇², 陈忠³

1. 西南民族大学 管理学院, 成都 610041;

2. 浙江师范大学 工商管理学院, 金华 321004;

3. 上海交通大学 安泰经济与管理学院, 上海 200052

The influence of customer interactions on the diffusion of products with network effects: A view based on product life cycle

ZHAO Liang-jie¹, WU Bang-tao³, DUAN Wen-qi², CHEN Zhong³

1. College of Management, Southwest University for Nationalities, Chengdu 610041, China;

2. School of Business Administration, Zhejiang Normal University, Jinhua 321004, China;

3. Antai College of Economics & Management, Shanghai Jiaotong University, Shanghai 200052, China

- 摘要
- 参考文献
- 相关文章

全文: PDF (911 KB) HTML (1 KB) 输出: BibTeX | EndNote (RIS) 背景资料

摘要 从消费者采用产品过程的生命周期(PLC)视角出发,运用微观扩散模型仿真分析消费者交互作用对网络效应产品扩散的影响.研究表明:消费者交互作用所产生的局部网络效应能够加快产品扩散早期和中期速度,而聚集效应则会降低产品扩散中期速度;消费者之间交互强度越强,产品扩散中期速度越快;全局交互型消费者则会降低产品扩散早期速度,但能提高产品扩散中期速度;且上述因素对网络效应产品PLC不同阶段扩散速度的影响还会由于消费者交互作用所形成的复杂社会网络结构差异而呈现不同模式.这些研究结论能够为网络外部性市场中企业的营销策略提供一定新启示.

关键词: 消费者交互作用 产品扩散 网络效应 产品生命周期 复杂社会网络

Abstract: From the view of product life cycle (PLC) which is based on the process of customers' adoption, this paper used a micro diffusion model to analysis the diffusion of products with network effects. The simulation results show that the local network effects of customer interactions increase the diffusion speed both at early and middle stage. The clustering effects of customer interactions could impede the diffusion speed at middle stage. The stronger the interactions between customers are, the faster the diffusion speed at middle stage is. The type of global interaction customer decreases the diffusion speed at early stage, but it could increase the diffusion speed at middle stage. Furthermore, the influence of those factors above on the diffusion speed of products with network effects would exhibit different patterns due to the different structures of complex social network. Those conclusions provide new marketing strategy implications for firms in markets with network externalities.

Key words: customer interactions diffusion of products network effects product life cycle complex social network

收稿日期: 2010-01-13;

基金资助:

国家自然科学基金(70671070, 71001040, 71102167); 国家社会科学基金(10XGL009); 西南民族大学 中央高校基本科研业务费专项资金(11SZYQN38)

作者简介: 赵良杰(1981-), 男, 四川成都人, 讲师, E-mail: zhaolj1981@gmail.com

引用本文:










. 消费者交互作用对网络效应产品扩散的影响——基于产品生命周期的视角[J]. 系统工程理论实践, 2012, 32(1): 67-75.

. The influence of customer interactions on the diffusion of products with network effects: A view based on product life cycle[J]. Systems Engineering - Theory & Practice, 2012, 32(1): 67-75.

服务

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ E-mail Alert
- ▶ RSS

作者相关文章

- [1] 吴云英, 韩轶超. 海运港口行业2011年投资策略[R]. 长江证券. Wu Y Y, Han Y C. Maritime port industry investment strategy in 2011[R]. Changjiang Securities Company.
- [2] Goldenberg J, Libai B, Muller E. Riding the saddle: How cross-market communications can create a major slump in sales[J]. *Journal of Marketing*, 2004, 66(2): 1-16.
- [3] Watts D J, Dodds P S. Influentials, networks, and public opinion formation[J]. *Journal of Consumer Research*, 2007, 34(4): 441-458. 
- [4] Godes D, Mayzlin D, Chen Y B, et al. The firm's management of social interactions[J]. *Marketing Letters*, 2005, 16: 415-428.
- [5] Rogers E. *Diffusion of Innovations*[M]. 4th ed. New York: The Free Press, 1995.
- [6] Moore G A. *Crossing the Chasm: Marketing and Selling High-Tech Products to Mainstream Customers*[M]. New York: Harper Business, 1991.
- [7] Tellis G J, Fornell C. Advertising and quality over the product life cycle: A contingency theory[J]. *Journal of Marketing Research*, 1988, 15: 64-71.
- [8] Gardner D. The product life cycle: Its role in marketing strategy[J]. *Die Unternehmung*, 1987, 41: 219-231.
- [9] Goldenberg J, Libai B, Muller E. Talk of the network a complex systems look at the underlying process of word-of-mouth[J]. *Marketing Letters*, 2001, 12(3): 211-223. 
- [10] Delre S A. *The effects of social networks on innovation diffusion and market dynamics*[D]. Ridderkerk: Labyrinth Publications, 2007.
- [11] Newman M E J. The structure and function of complex networks[J]. *SIAM Review*, 2003, 45: 167-256. 
- [12] Goldenberg J, Han S, Lehmann D R, et al. The role of hubs in the adoption process[J]. *Journal of Marketing*, 2009, 73(2): 1-13.
- [13] 赵良杰. 网络平台扩散机制和竞争策略研究[D]. 上海: 上海交通大学, 2010. Zhao L J. Research on diffusion mechanism and competition strategy of network platform[D]. Shanghai: Shanghai Jiaotong University, 2010.
- [14] Watts D J, Strogatz S H. Collective dynamics of 'small-world' networks[J]. *Nature*, 1998, 393: 440-442. 
- [15] Barabási A L, Albert R. Emergence of scaling in random networks[J]. *Science*, 1999, 286: 509-512. 
- [16] 中国交通报. 我国部分集装箱码头凸显产能严重过剩[R]. 2010年9月14日, <http://wuliu.acs.gov.cn/sites/xm wz/count7.jsp?contentId=2568653244569>. China Communications News. Highlights some of China's container terminal to serious excess capacity[R]. September, 14, 2010. <http://wuliu.acs.gov.cn/sites/xmwz/count7.jsp?contentId=2568653244569>.
- [17] Vazquez A. Growing network with local rules: Preferential attachment, clustering hierarchy, and degree correlation[J]. *Physical Review E*, 2003, 67(5): 56104. 
- [18] Shankar V, Bayus B L. Network effects and competition: An empirical analysis of the home video game industry[J]. *Strategic Management Journal*, 2003, 24: 375-384. 
- [19] Coleman J S. Social capital in the creation of human capital[J]. *American Journal of Sociology*, 1988, 94: 95-120. 
- [20] Westarp F, Wendt O. Diffusion follow structure — A network model of the software market[J]. *Proceedings of the 33rd Hawaii International Conference on System Sciences (HICSS-33)*, 2000.
- [21] Campbell D T, Stanley J C. *Experimental and Quasi-Experimental Designs for Research*[M]. Chicago: Rand McNally, 1966.
- [22] Davis J P, Eisenhardt K M, Bingham C B. Developing theory through simulation methods[J]. *Academy of Management Review*, 2007, 32: 480-499. 
- [23] Vilpponen A, Winter S, Sanna S. Electronic word-of mouth in online environments: Exploring referral network structure and adoption behavior[J]. *Journal of Interactive Advertising*, 2006, 6(2): 71-86.
- [1] 赵良杰; 武邦涛; 陈忠; 段文奇. 感知质量差异对网络外部性市场结构演化的影响[J]. *系统工程理论实践*, 2011, 31(1): 84-91.
- [2] 于同洋; 肖人彬; 龚晓光. 基于多智能体的网游产品扩散特性[J]. *系统工程理论实践*, 2010, 30(5): 919-927.
- [3] 张磊; 李一军; 闫相斌. 基于竞争的代产品扩散模型及其实证研究[J]. *系统工程理论实践*, 2008, 28(12): 84-92.
- [4] 胡知能; 徐玖平. 创新产品扩散的多阶段动态模型[J]. *系统工程理论实践*, 2005, 25(4): 15-21.
- [5] 胡知能. 创新产品扩散的免费商品问题分析[J]. *系统工程理论实践*, 2005, 25(3): 96-100.
- [6] 闻中; 陈剑. 网络效应、市场结构和进入壁垒[J]. *系统工程理论实践*, 2002, 22(2): 61-66.

版权所有 © 2011 《系统工程理论与实践》编辑部

地址：北京中关村东路55号 100190 电话：010-62541828 Email: xtll@chinajournal.net.cn

本系统由北京玛格泰克科技发展有限公司设计开发 技术支持: support@magtech.com.cn