



Contents lists available at ScienceDirect

IJRM

International Journal of Research in Marketing

journal homepage: www.elsevier.com/locate/ijresmar

Full Length Article

The effects of mobile promotions on customer purchase dynamics[☆]

Chang Hee Park^{a,*}, Young-Hoon Park^b, David A. Schweidel^c^a School of Management, Binghamton University, State University of New York, P.O. Box 6000, Binghamton, NY 13902, United States^b Samuel Curtis Johnson Graduate School of Management, Cornell University, 361 Sage Hall, Ithaca, NY 14853, United States^c McDonough School of Business, Georgetown University, Washington, DC 20007, United States

ARTICLE INFO

Article history:

First received on March 17, 2017 and was under review for 6 months
Available online xxxx

Senior Editor: Koen H. Pauwels

Keywords:

Mobile promotions
Coupons
Targeting
Purchase dynamics
Hidden Markov models
Bayesian estimation

ABSTRACT

While mobile promotions have become increasingly popular in recent years, limited research has examined the effects of mobile promotions over time. This research investigates the effects of two popular types of promotional offers, price discount and non-price free sample coupons, on purchase behavior. To this end, we present a dynamic model of customer purchase behavior that incorporates time-varying effects of mobile coupons, enabling us to investigate both the short-term and longer-term effects of mobile promotions. Using transaction and mobile promotion data, we find that both price discount and free sample coupons increase customers' purchase likelihood and expenditures during the coupon redemption period. We also find that free sample coupons have an enduring effect that increases the purchase propensity beyond the promotion period, thereby contributing to incremental purchases over a longer period of time. We demonstrate how our approach can help marketers improve mobile couponing decisions by considering the dynamic effects of mobile promotions that manifest over time.

© 2018 Elsevier B.V. All rights reserved.

1. Introduction

Firms increasingly target customers with customized marketing offers (e.g., Rossi, McCulloch, & Allenby, 1996; Thomas, Reinartz, & Kumar, 2004; Venkatesan & Farris, 2012). In recent years, such efforts have been facilitated by the growing popularity of mobile devices and message services on them. By 2020, the number of mobile device users is expected to reach 9.2 billion with a 5% compound annual growth rate (Ericsson, 2015). In 2019, 1.05 billion shoppers are expected to use mobile coupons, up from just under 560 million in 2014 (Juniper Research, 2014). Naturally, the mobile channel has become an important medium for targeted promotions (e.g., Dickinger & Kleijnen, 2008; Andrews, Goehring, Hui, Pancras, & Thornswood, 2016).

While research on mobile promotions is expanding (e.g., Luo, Andrews, Fang, & Phang, 2014; Danaher, Smith, Ranasinghe, & Danaher, 2015; Fong, Fang, & Luo, 2015), it has focused largely on the short-term effects of price promotions. Existing research in mobile marketing has ignored the effects of mobile promotions beyond the redemption period, despite the promotions literature having documented the importance of longer-term effects (e.g., Neslin, Henderson, & Quelch, 1985; Jedidi, Mela, & Gupta, 1999; Van Heerde, Harald, Leeflang, & Wittink, 2000). Moreover, limited research has been conducted to examine the effects of non-price (e.g., free samples) promotions in mobile channels. Accordingly, given unique characteristics of mobile media and

[☆] The authors would like to thank the company, which wishes to remain anonymous, that provided the data used in this study.

* Corresponding author.

E-mail addresses: cpark@binghamton.edu (C.H. Park), yp34@cornell.edu (Y.-H. Park), david.schweidel@georgetown.edu (D.A. Schweidel).

environments (e.g., Egan, 2016; Kalanadhabhatta, Mathur, Majethia, & Kawsar, 2017; Wilmer, Sherman, & Chein, 2017), key questions arise here as to whether the effect of the promotions extends beyond the short-term promotion period and if the impacts in both the short term and beyond depend on the type of promotions offered. Addressing these questions is undoubtedly important for managers to effectively plan and evaluate promotional activity in mobile channels.

In this research, we investigate how two popular types of mobile promotions, price discount and non-price free sample coupons, affect customers' purchase behavior over time. To examine the dynamics of customer purchases and promotion effects, we employ a hidden Markov modeling framework (e.g., Montgomery, Li, Srinivasan, & Liechty, 2004; Netzer, Lattin, & Srinivasan, 2008; Schweidel, Bradlow, & Fader, 2011) that captures both the immediate short-term effect that coupons have on customer purchases during the promotion period and the potential longer-term effect that coupons may have beyond the promotion period. Our modeling framework also accounts for customer heterogeneity (e.g., Rossi et al., 1996; Venkatesan & Farris, 2012) and the potential nonrandom nature of the firm's direct marketing decisions (e.g., Manchanda, Rossi, & Chintagunta, 2004; Schweidel & Knox, 2013).

Applying the proposed model to the data of customer purchases and mobile promotions from a major retailer, we find that both price discount and free sample coupons increase customers' purchase likelihood and amount during the promotion period. Moreover, we find that free sample coupons have an enduring effect that increases the purchase propensity beyond the redemption period, thereby generating additional transaction opportunities in a longer term. Our results also indicate that customers vary in their sensitivities to the different types of coupons, suggesting that the retailer has the opportunity to take advantage of the heterogeneity in customers' responsiveness and target them with different types of mobile promotions.

As price discount and free sample coupons affect customer behavior differently during and after the promotion period, the benefits of the different types of coupons are realized over different timeframes. While research on mobile promotions primarily focuses on their short-term effects, our research highlights the importance of taking a longer-term perspective (e.g., Jedidi et al., 1999; Neslin & van Heerde, 2009) to fully capture the effects of promotions in mobile channels. To demonstrate this, we conduct a scenario analysis that examines how the retailer's individual-level mobile couponing decisions would differ if the firm were to lengthen its evaluation horizon of mobile promotions from the typical promotion period (e.g., 3 weeks) to an extended period of time (e.g., 12 months). Our results reveal that the number of customers who would receive price discount coupons decreases by 36%, while 8% more customers would receive free sample coupons, increasing the firm's revenue by 5%. This highlights the importance of a longer-term perspective over which mobile promotional efforts are evaluated.

The remainder of this article is organized as follows. In Section 2, we provide an overview of prior literature related to our work and discuss the contribution of the research to the literature. Section 3 describes the data used in our empirical application. Section 4 provides a formal specification of our model. In Section 5, we discuss model results and illustrate how our model can assist managers' mobile promotion decisions. We conclude with a discussion of the limitations of this research and directions for further work in Section 6.

2. Related literature

In this section, we discuss two streams of relevant literature: the short-term and longer-term effects of price and non-price promotions, and mobile promotions.

2.1. Effects of promotions

Understanding the effects of promotions on purchase behavior has been of great interest to marketers. Marketing researchers have investigated the effects of price promotions, such as price discount coupons and temporary price reductions (e.g., Kumar & Pereira, 1995; Ailawadi, Neslin, & Gedenk, 2001). Several studies have documented the positive short-term effect of price promotions on buying behavior and brand sales (e.g., Gupta, 1988; Leone & Srinivasan, 1996). In the behavioral literature, the positive effects of price promotions have been attributed to increased transaction utility from economic benefits (e.g., Lee & Tsai, 2014), and/or elevated shoppers' moods with the perception of "getting a good deal" (e.g., Lichtenstein, Netemeyer, & Burton, 1990) or "being a smart shopper" (e.g., Schindler, 1998). However, researchers have also reported negative consequences of price promotions in a longer term, because of customer stockpiling (e.g., Neslin et al., 1985; Van Heerde et al., 2000), the reduced perception of product quality (e.g., Shiv, Carmon, & Ariely, 2005), changes in customer loyalty (e.g., Lewis, 2006), and increased price sensitivity (e.g., Kalwani & Yim, 1992).

Firms have also actively used non-price promotions in which customers are offered benefits other than price reductions. As non-price promotions are often designed to appeal to the hedonic aspects of consumption or provide customers with an opportunity to experience new products, offering free samples has been one of the most common forms of non-price promotions (e.g., Chandon, Wansink, & Laurent, 2000). In comparison to a large body of research on price promotions, there has been limited empirical research probing the effects of free sample promotions. Gedenk and Neslin (1999) examine the impact of in-store free samples on customer purchase feedback. Lammers (1991) finds the positive short-term effects on category purchases. Bawa and Shoemaker (2004) report the long-term effects of free samples on brand sales for as much as 12 months after the promotion.

2.2. Mobile promotions

With mobile channels for promotional activity becoming increasingly popular, studies have discussed how mobile promotions may differ from traditional promotions and identified factors that may impact the effects of mobile promotions. For

Download English Version:

<https://daneshyari.com/en/article/10153202>

Download Persian Version:

<https://daneshyari.com/article/10153202>

[Daneshyari.com](https://daneshyari.com)