Journal of Business Research 66 (2013) 2226–2233

Contents lists available at SciVerse ScienceDirect

Journal of Business Research

# Experimental analysis of consumer channel-mix use ☆

Harmen Oppewal [a,*], Dewi Rooslani Tojib [a,1], Panos Louvieris [b,2]

[a] Department of Marketing, Monash University, 26 Sir John Monash Drive, Caulfield East, VIC 3145, Australia
[b] School of Information Systems, Computing and Mathematics, Brunel University, Uxbridge, Middlesex, UB8 3PH, United Kingdom

ARTICLE INFO

*Article history:*
Received 1 November 2010
Received in revised form 1 December 2011
Accepted 1 January 2012
Available online 22 February 2012

*Keywords:*
Multi-channel retailing
Shopping behavior
Channel choice
Information search
Travel agents
Choice experiments
Scenario tasks

ABSTRACT

Today's consumers have access to multiple consumer distribution channels. To remain competitive, retailers must offer different contact points to consumers. This empirical study examines channel-mix use decisions for 352 online customers' holiday booking preparations. A scenario based experimental approach studies consumer channel-mix use by channel and decision context attributes. The study models effects of time pressure, expected expenditure, channel quality, and access costs on the use of eight channel options, including traditional and online options. Over one-half of respondents use multiple channels to decide trip booking; however, most travelers book trips using the channel they initially investigated for information. Results show expected expenditure does not influence channel use; however, overall cost affects the booking's timing. Time pressures force respondents to visit a travel agent or collect additional brochures to quickly complete the purchase. Results suggest brochures fulfill an important support role.



## 1. Introduction

Multi-channel strategies have become a standard approach to reach customers (Verhoef, Neslin, & Vroomen, 2007). A well-integrated multi-channel delivery allows businesses to develop relationships with consumers as they search for information at one channel, purchase at the second channel, and pick the product up at the third channel (Dholakia, Zhao, & Dholakia, 2005). Designing and managing product delivery challenges managers due to a limited understanding of multi-channel consumer behavior. Surprisingly, few studies investigate how consumers use multiple channel alternatives to decide specific purchases, and how usage varies by shopping circumstances and channel attributes. Studying channel-mix use provides a better understanding of multi-channel consumers and assists practitioners in identifying the most effective channel mix.

How do consumers use various channels given a specific decision context or situation? The present study extends the scenario based modeling approach to explore consumer channel-mix use (see Louviere, Hensher, & Swait, 2000). The study examines different purchase conditions as experimental scenarios, observes how consumers use channel option sequences decide product purchases, and provides detailed descriptions of actual purchase situations *in situ*. Observing channel use in richly described vignette situations helps develop models to capture consumer behavior.

This study examines channel use in specific purchase contexts as well as each channel's effect on the total customer outcome. The paper differs from previous research by modeling how consumers sequentially use channels, revealing how channels compete, or complement each other in different decision contexts. The study demonstrates how scenario based experimental methods apply to this problem and represent unique channel contexts and configurations.

Section 2 reviews relevant literature and derives the hypotheses. Section 3 presents the method and Section 4 the analysis and results. Section 5 offers theory and management implications, and future research directions.

## 2. Literature review

Many studies examine multi-channel retailing; however, none directly examine consumers' channel access sequences for particular purchases. Previous multi-channel studies investigate the profile of the multi-channel shopper (McGoldrick & Collins, 2007), consumer perceptions of multi-channels (Teltzrow, Meyer, & Lenz, 2007), multi-channel shopping drivers (Cortiñas, Chocarro, & Villanueva, 2010), channel-switching intentions (Gupta, Su, & Walter, 2004; Huang & Oppewal, 2006) or longer-term channel migration patterns (Ansari, Mela, & Neslin, 2008). Several studies identify consumer channel preferences (Keen, Wetzels, de Ruyter, & Feinberg, 2004; Laukkanen, 2007; McGoldrick & Collins, 2007); however, these

☆ The authors acknowledge and are grateful for the comments by Benedict Dellaert, Erasmus University Rotterdam and Mike Ewing, Monash University, to an earlier draft, which were helpful in revising this paper. The authors alone are responsible for all limitations and errors that may relate to the study and the paper.

* Corresponding author. Tel./fax: +61 3 99032360/2900.
*E-mail addresses:* harmen.oppewal@monash.edu.au (H. Oppewal), dewi.tojib@monash.edu.au (D.R. Tojib), Panos.Louvieris@Brunel.ac.uk (P. Louvieris).
[1] Tel.: +61 3 9903 2686.
[2] Tel.: +44 1895 265832.

0148-2963/$ – see front matter © 2012 Elsevier Inc. All rights reserved.
doi:10.1016/j.jbusres.2012.02.002

studies do not investigate how different channels complement each other. Situational variables also are important. Nicholson, Clarke, and Blakemore (2002) reveal how specific conditions affect consumer's shopping channel selection while Wendel and Dellaert (2008) demonstrate how social and time pressures affect perceived benefits of websites.

Few studies focus on consumers' use of multiple channels. Verhoef et al. (2007) explore consumer's propensity to gather information from one channel and purchase the product using another channel. Typically, this "research shopping" is conducted via the internet and the purchase is made at a traditional retail store. Other studies examine channel use or preference at different purchase process stages (e.g., Frambach, Roest, & Krishnan, 2007; Konus, Verhoef, & Neslin, 2008).

Although published studies investigate many aspects of channel use or preference, none seem to directly study consumers' sequences of channel access for particular purchase tasks and purchase conditions. This research gap exists because data allowing such an analysis are difficult to obtain. Click-stream data allow analysis of multiple online sites but not the use of multiple channels, or they are from one particular retailer only and do not include competitors' channels. In addition, existing data rarely records micro-decision conditions. Despite repeated calls to better acknowledge the specific nature of the consumer's multi-channel experience (Balasubramanian, Raghunathan, & Mahajan, 2005; Seybold, 2001), significant challenges exist to model the complete customer journey.

## 3. Conceptualization

This study adopts a broad conceptualization that builds on existing literature regarding consumer store choice and extends this framework to the multichannel context. The framework comprises the two main determinants of store choice (attraction and cost) and includes two task (or situational) factors as moderators of store choice. Based on previous research, all factors and attributes are expected to impact channel-mix use and task completion. Firstly, the literature on consumer store choice suggests that higher costs of channel access and usage (e.g., due to poor convenience or higher fees) result in a lower likelihood of visiting or using a channel (e.g., Berry, Seiders, & Grewal, 2002; Brooks, Kaufmann, & Lichtenstein, 2008). This finding is well established for mortar-and-brick retail stores, however not so for alternative channels. Consumers furthermore visit channels expecting to gain information that will help them move towards completing their transaction. Channel usage likely contributes positively to the time of task completion.

**H1.** Cost of channel access and usage negatively influences (a) channel use and (b) time of purchase task completion.

The retail literature also indicates that higher quality stores are more attractive (e.g., Pan & Zinkhan, 2006). The same will apply for alternative channels. Therefore a channel of higher perceived quality better attracts consumers and contributes more to purchase task completion than a lower quality channel.

**H2.** Perceived channel quality positively affects (a) channel use and (b) time of purchase task completion.

Thirdly, the shopping task context influences channel choice in that a greater expected item spend leads to a greater perceived risk, resulting in a greater need for information and active decision support as provided by stores, information kiosks, and the internet (Beatty & Smith, 1987; Schmidt & Spreng, 1996). This relationship means the purchase task is completed later if there is more risk involved. The implication for this study is a predicted higher interest in visits to a travel agent, brochure collection and internet use and a later task completion when the holiday is longer.

**H3.** Purchasing higher expenditure items results in (a) greater interest in channels that provide support with the selection process and (b) a later time of purchase task completion.

The literature also suggests increasing time pressure leads to a more task-oriented use of channels. Situational time pressure results in a greater sense of sacrifice and reduced perceptions of convenience (Beatty & Smith, 1987; Berry et al., 2002; Schmidt & Spreng, 1996). Perceived time convenience relates to perceived channel value (Kleijnen, de Ruyter, & Wetzels, 2007). Wendel and Dellaert (2008) find that time pressure affects the importance of website benefits and Chowdury, Rathneshwar, and Mohanty (2009) find that consumer decision goals relate to differences in browsing behavior. A more task-oriented use of available channels results in an increased use of channels providing support and contributing directly to the product selection task. For this study, task-oriented channel uses include store visits, collecting product brochures, and visiting a bookshop. Task-oriented channel use increases if time pressure increases and contributes to early task completion.

**H4.** Increasing time pressure results in increased use of channels that directly support and contribute to solving the product selection task, and early purchase task completion.

## 4. Method

The study employs a scenario approach to investigate channel use for preparing a holiday booking in a real-life situation that incorporates various channel options including a travel agent store, online channels, and brochures. The study manipulates specific decision task and channel attributes while ensuring that all scenario variations are within a range of situations that respondents can relate to. Participants indicate which channels they would use, how likely they would complete their booking on the specified day, and where they would book.

### 4.1. Sample

Participants consist of 352 customers of a major travel agent with High Street outlets all across the United Kingdom. Respondents include 39% males with a good spread across age groups (except for elderly: only 3% are over 55 years old). About 40% have a tertiary qualification; 31% indicate they are a family with children. Nearly three-fourths of respondents (74%) made at least once an online purchase.

### 4.2. Scenario development and experimental design

Discussions with travel consumers and industry experts served to create a holiday planning scenario that appears in Fig. 1. The scenario manipulates two task related context factors: time pressure (based on a decision frame of two weeks versus two months until departure) and expected expenditure (based on a one week versus a two week holiday). Respondents imagine they are planning a particular holiday. After some familiarization and manipulation check questions they receive information that specifies a particular day and opportunity where they could spend time to search and possibly book the planned holiday.

Respondents received a list of eight channels and they indicated which channel they would visit first and which one they would visit next, after having visited the first selected option (see Fig. 2).

The eight channels derive from the travel behavior (e.g., Money & Crotts, 2003; Pearce & Schott, 2005) and channel choice literature (discussed above), complemented by industry consultation. Each channel has one or two attributes, each with two levels (Fig. 2). The use of a 2-to-the-13 main effects design (with fold-over, so main effects are independent of two-way interactions) resulted in 32