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From catalog to Web: B2B multi-channel marketing strategy

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Abstract

The literature on catalog buying is heavily skewed to the business to consumer (B2C) area and increasingly is orientated to the multi-channel world of shopping choice, including online, catalog and store options. Previous studies have primarily been single equation explanations of catalog decisions, whereas the current study takes a hierarchical or systems approach to decision making in B2B marketing. A two-equation structural equation model (SEM) has been designed and a large sample ($n=1809$) of business customers used to test the model. Price and catalog layout were seen to play a particularly important role in explaining buyer behavior. Additional multiple regression analysis was carried out to understand why purchasing agents who currently use one channel (catalog), would make use of a second, new channel (Web) in the future. The study identifies five key motivating factors for consumers in adopting a new (Web) channel for purchasing purposes. The study also identifies the switching costs that act as a barrier to adopting a Web channel.

Keywords: Direct marketing; Catalog order; Web; Multi-channel; Switching costs

1. Introduction

Although it is tempting to focus on Web-enabled buying because of the interest in this new channel, it seems important to clarify firstly our knowledge of an older format of direct purchasing, namely catalog buying. Especially in North America, but also in Australia, catalog greatly exceeds (in dollar volume of sales) online as a buying medium. The initial focus of the current paper is on business-to-business buying of office product supplies through catalogs. The study is a means of ascertaining which factors are critical in determining satisfaction and loyalty in this channel market. A quantitative research design has been chosen. A structural equation model (SEM) method has been used, which is appropriate for a large sample. A sample of $n=1809$ was used, relatively large in the marketing context. Then, multiple regression analysis was used to model the take up of the Web channel for future purchasing. We now introduce the literature review, and then discuss the research design, sample frame, research results and the implications for suppliers.

2. Literature review

Much of the literature is in the business-to-consumer (B2C) context rather than the business-to-business (B2B) context. Catalog buying appeals to time-compressed consumers with high disposable income and a high need for labor saving goods and services (Dholakia & Uusitalo, 2002). It is argued that catalog shopping is based on a broad range of experiential values, offering efficiency and affordability, but also visual appeal (Gehrt & Shim, 1998; Mathwick; Malhotra, & Rigdon, 2001). Much of the literature has moved into the multi-channel realm, with increasing attention to online purchasing (Dennis, Harris, & Sandhu, 2002; Dholakia & Uusitalo, 2002; Kim, 2002; Sotgiu & Ancarani, 2004). Multi-channel retailing has also been considered because it enables customers to examine goods at one channel, buy at another and pick them up at a third, if desired (Berman & Thelen, 2004). Commonly the multi-channel research compares the three way choice between online, catalog and store (Gehrt & Yan, 2004;

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Palmer, 2000) or mail order catalog versus a range of outlet types (Morganosky, 1997). It is argued that perceived risk, past direct marketing experiences, motivation type, product category and design aspects influence channel choice across multi-channel shopping options (Schoenbachler & Gordon, 2002). One study has concluded that online shopping and catalog shopping are closer substitutes than any other pair of channels (Ward, 2001). Most of the B2C studies provide insight for the current study in terms of buying criteria and potential market segments.

The specific B2B literature is not as extensive as the B2C field, which tends to be dominated by shorter magazine articles of specific cases (Anon., 1996; Brown, 1989; Martin, 1987). Choi (2003) is one exception, conceptually arguing that manufacturers setting up direct channels are likely to be deterred by the optimal number of online suppliers being only two and also by the risk of alienating retail clients. Conflict arising from managing multi channels of distribution in a B2B context is explored in Webb (2001). Shipley, Egan, and Edgett (1991) conclude that direct channels have a potential advantage in terms of product and price, while distributor channels have an advantage in developing relationships. Neither channel was found to have an absolute advantage. After-sales service was found to contribute to buyer satisfaction (Withey, 1988). A further issue, to be explored in future research is the role of multichannel integration (Payne & Frow, 2004).

3. Research design

A quantitative design has been used because there is reasonable understanding from past studies (Eastlick & Feinberg, 1999). A two-equation model of the catalog buying process has been developed, as follows:

$$\mathrm{INT} = f(\mathrm{SAT}) \tag{1}$$

$$\mathrm{SAT} = f(P, L, S, G). \tag{2}$$

Where INT refers to behavioral intentions; SAT refers to customer satisfaction; P refers to perceived fair price; L refers to catalog layout; S refers to friendly staff telephone operators; G refers to guarantees.

Where relevant, each construct is measured as a multi-item scale, based on the literature where possible. Tests revealed that the scales were reliable, as indicated:

- Purchase intentions (8 items), alpha = 0.90
- Customer satisfaction (5 items), alpha = 0.94
- Trust in supplier (5 items), alpha = 0.94
- Catalog layout (7 items), alpha = 0.92
- Price (3 items), alpha = 0.87
- Guarantee (2 items), alpha = 0.74.

All of the scales were tested for unidimensionality and each was found to be a single dimension. A number of one-item scales were also used for additional regression analysis. These scales included frequency of WWW purchasing in general and frequency of using WWW for information search in general.

Direct modeling of the intention to use the Web for future purchases was also carried out, this time using multiple regression analysis. Previous studies have used trust and Web attributes as key determinants. We have also incorporated the respondent's experience in using the World Wide Web across all categories. Based on the findings of the first part of our research we also added other factors to this model, including attachment to inter-personal staff contact and the importance of 24/7 availability (access) of the catalog. Both of these factors were included as possible inhibitors of adoption of the Web as a purchasing channel.

4. Sample frame

Cooperation was sought and obtained from a large Australian-based stationery provider that has both a catalog and an Internet-based business, especially in the business-to-business market. The survey was entirely designed by the researchers and all of the data was returned to the university. The survey was conducted online, with a prize incentive to encourage responses. The sample was reached through a normal issue of the catalog, which invited customers to participate in the online survey. There was no missing data because incomplete responses were not accepted. The current sample was cleaned so that it became a pure business-to-business sample. A model was estimated for a sample of 1809 firms, with duplicate entries eliminated from the sample. Although the sample is large, a test was made for non-response bias by comparing late returns with early returns and testing for the statistical significance of differences in the mean value of each item. Of the 40 items tested, 38 were not significant at the 1% level. Of the two that were significant, the absolute difference in the mean was only about 0.1 points on a seven-point scale. The very large sample size makes it possible that small absolute differences could show up as significant. We conclude that there is no evidence of a likely non-response bias problem.

5. Results

The results are presented in three parts. Firstly we focus on the structural equation modeling (SEM) analysis of the catalog channel from a particular supplier because that is the core nature of the supplier being studied. Secondly, we have conducted some descriptive analysis of the main motives for the catalog and Web channel, separately. Thirdly, multiple regression analysis is used to directly explain future purchases through the Web.

5.1. Focusing on the catalog channel

The starting point for our analysis is the catalog channel because the supplier being studied is a B2B catalog retailer. Two equations have been estimated for our overall model. Maximum likelihood estimation has been used, though similar results accrue when an asymptotic distribution-free estimation method is used. The model fits well with a GFI of 0.98, a AGFI of 0.96 and a TLI of 0.98, all above the desired benchmark of 0.90. There was no problem with misfit of the data, with the RMSEA = 0.051, well below the 0.08 benchmark. Further, the standardized RMR was 0.022, again indicating a good overall fit of the model.