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ScienceDirect
Journal of Interactive Marketing 23 (2009) 70 – 81
JOURNAL OF INTERACTIVE MARKETING
www.elsevier.com/locate/intmar

Key Issues in Multichannel Customer Management: Current Knowledge and Future Directions

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Abstract

Multichannel customer management is "the design, deployment, and evaluation of channels to enhance customer value through effective customer acquisition, retention, and development" (Neslin, Scott A., D. Grewal, R. Leghorn, V. Shankar, M. L. Teerling, J. S. Thomas, P. C. Verhoef (2006), Challenges and Opportunities in Multichannel Management. *Journal of Service Research* 9(2) 95–113). Channels typically include the store, the Web, catalog, sales force, third party agency, call center and the like. In recent years, multichannel marketing has grown tremendously and is anticipated to grow even further. While we have developed a good understanding of certain issues such as the relative value of a multichannel customer over a single channel customer, several research and managerial questions still remain. We offer an overview of these emerging issues, present our future outlook, and suggest important avenues for future research.
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Keywords: Customer relationship management; Marketing channels; Customer value; Database marketing

Introduction

Multichannel customer management (MCM) is "the design, deployment, and evaluation of channels to enhance customer value through effective customer acquisition, retention, and development" (Neslin, Grewal, Leghorn, et al. 2006). Channels typically include the store, the Web, catalog, sales force, third party agency, call center and the like. MCM is a hot topic for several firms across many industries, consumer goods, B2B companies, retailing, and services. In recent years, the practice of multichannel marketing has grown tremendously and will likely grow further in the future. By 2011, 47% of all transactions are expected to be Internet-enabled (Jupiter, 2006). About 40% of retailers sell through three or more channels, while another 42% sell through two channels (The DMA 2005).

Research on multichannel customer management offers important insights (see Blattberg, Kim, and Neslin 2008, and Neslin, Grewal, Leghorn, et al. 2006 for summaries) on issues like channel choice (Kumar and Venkatesan 2005; Kushwaha and Shankar 2008a; Montoya-Weiss, Voss, and Grewal 2003), channel migration (Ansari, Mela, and Neslin 2008; Gensler, Dekimpe, and Skiera 2004; Knox 2005; Thomas and Sullivan 2005; Venkatesan, Kumar, and Ravishanker 2007; Verhoef, Neslin, and Vroomen 2007), allocation of marketing efforts (Kushwaha and Shankar 2008b), and the value of multichannel versus single channel customers (Ansari, Mela, and Neslin 2008; Kushwaha and Shankar 2008a). However, several research and managerial questions still remain (Rangaswamy and van Bruggen 2005).

The purpose of this paper is to present a customer-management based framework that structures the process by which the firm can develop and implement a multichannel strategy, and to use the framework to identify key customer-management issues to be addressed. This multichannel customer management decision (MCMD) framework is adapted from Blattberg, Kim, Neslin (2008, p. 659; see also Rangan 1995) and is shown in Fig. 1. The MCMD framework identifies

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doi:10.1016/j.intmar.2008.10.005

five tasks for managers: (1) Analyze customers, (2) Develop multichannel strategy, (3) Design channels, (4) Implement, and (5) Evaluate.

Key issues: what we know and need to know

We identify 13 issues pertaining to the successive stages of the framework. Fig. 1 links each stage to each issue. For each issue, we first discuss the critical questions, outline our current knowledge about the issue, and finally list the key unanswered questions and the gaps in our knowledge that offer important directions for future research.

(1) How should the firm segment customers in a multichannel environment?

The MCMD framework begins with understanding customers, and a crucial issue here is customer segmentation. A basic question is whether, and if so how, should the firm incorporate the multichannel environment into its segmentation scheme?

A good segmentation scheme requires that the segments be measurable, accessible, differentially responsive, actionable, and substantial (Kotler and Keller 2006, p. 262). Assuming the availability of channel-specific purchase data (see Issue #12), it is possible to measure the channel segments. Kushwaha and Shankar (2008a) show that customers differ on various characteristics depending on their channel usage. This enables the firm to paint a more informed “picture” of the “Internet consumer” or the “Multichannel consumer.” The segments identified through channels are accessible because channels serve as communications vehicles as well as sales channels. Segments formed on the basis of channel are probably differentially responsive in that customers who use different channels most likely have different needs (e.g., for convenience versus service) and therefore users of Channel A will respond differently to a given marketing action than users of Channel B. Channel segments are actionable because marketers therefore can design marketing programs by channel. Channel-based segments are substantial as long as each channel attracts a significant customer base.

The above suggests that a channel-based customer segmentation may be advisable. The question then is how to form these segments. Segments formed based on customer *usage* of different channels is one option. However, one might argue that while channels should be incorporated in customer segmentation, it is not channel usage, but channel *preferences*, *responsiveness*, or *growth potential* that should be the fundamental measure used for the segmentation. Customers may be using certain channels due to inertia or short-term convenience. However, from the perspective of developing customers, it might be better to look at preferences, responsiveness, and growth potential. The challenge in using these concepts for segmentation is measurability. For example, while a simple survey could be used to measure channel preferences, this would only be for a subset of customers. Some method, for example a predictive model (Blattberg, Kim, and Neslin 2008, Chapter 10), would be needed to infer preferences for the entire customer base.

Research suggests that segmentation on the basis of measures other than channel usage may be feasible. Customers differ in intrinsic preferences for channels (Balasubramanian, Raghunathan, and Mahajan 2005; Inman, Shankar, and Ferraro 2004; Keen, Wetzels, de Ruyter, et al. 2004; Konus, Verhoef, and Neslin, 2007; Knox 2005); in their response to marketing activities by channel (Ansari, Mela, and Neslin, 2008; Thomas and Sullivan 2005); and by component of sales and profits (e.g., purchase quantity, timing, returns, and margin) (Kushwaha and Shankar 2008b). There is also evidence that customers vary in how much inertia affects their channel choices (Ansari, Mela, and Neslin 2008; Thomas and Sullivan 2005; Valentini, Neslin and Montaguti 2008). The challenge would be to put these findings into a measurable, accessible, and actionable segmentation scheme that can be scaled up to the firm’s entire customer base.

In addition, many unanswered questions on channel segmentation still remain. These include: How different are customers’ responses by channel in the presence of own and competitive marketing activities? Which is the best measure for segmenting customers — usage, preference, responsiveness, or some combination? Are channel-based segments stable or do they change over time (Knox 2005; Valentini, Neslin, and Montaguti 2008)?

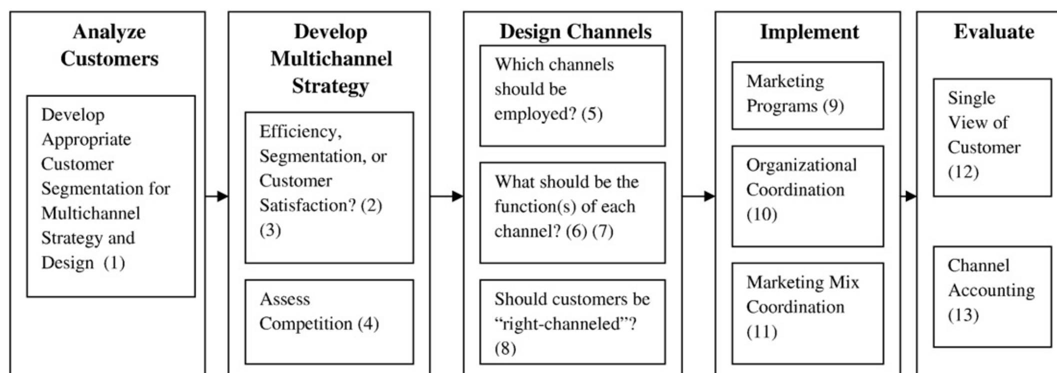

Fig. 1. A multichannel customer management decision (MCMD) framework*. *Numbers in parentheses correspond to issues as numbered in the text.

(2) Is multichannel strategy about efficiency, segmentation, or customer satisfaction?

There are at least three potential visions driving multichannel strategy: efficiency, segmentation, and customer satisfaction. The efficiency perspective views multichannel efforts as cost reduction. The segmentation approach views multichannel as a device for segmenting the market, i.e., for serving Segment A on Channel 1 and Segment B on Channel 2. It can be used to serve the current customer base or to reach new customers. The customer satisfaction perspective views multichannel as a way to enhance customer satisfaction, i.e., delighting customers by encouraging them to use whichever channel they wish and providing tight integration between channels. The key question is, which of these motivations should govern multichannel strategy?

We know very little related to this question. Langerak and Verhoef (2003) conduct interesting field research that shows that whichever strategy is adopted has important implications for organization structure. For example, the data management department was crucial for a firm that was pursuing an efficiency strategy. A firm pursuing a customer satisfaction strategy cultivated customer management teams to provide the “customer intimacy” needed to satisfy customers.

Relevant to the customer satisfaction strategy, there is empirical evidence that multichannel availability may enhance loyalty (Shankar, Smith, and Rangaswamy 2003; Hitt and Frei 2002; Campbell and Frei 2006; Danaher, Wilson, and Davis 2003; Wallace, Giese, and Johnson 2004) although some studies suggest that increased Internet usage may erode loyalty (Ansari, Mela and Neslin 2008; Wright 2002). If multiple channels enhance loyalty, then using multiple channels as a customer satisfaction strategy may be appropriate because the enhanced loyalty may be derived from customer’s freedom to use the different channels. This is consistent with the “integrated marketing” concept, where customization (in this case of marketing channels) can build a “relationship brand,” i.e., one that “can be experienced in a more individualistic or idiosyncratic way by the consumer.” (Calder and Malthouse 2005, p. 359).[2]

What we need to know are answers to the following questions. Do multichannel customers perceive better service and experience greater satisfaction or delight than do single channel customers? Is the multichannel usage and customer satisfaction relationship *causal*? That is, does multichannel usage beget higher customer satisfaction, or are more satisfied customers naturally willing to use different channels? How can a firm circumvent potential strategic conflicts? For example, an efficiency strategy may produce lower satisfaction. A customer satisfaction strategy may be difficult to implement because segments with different needs will make different demands on the same channel — e.g., the convenience shopper may want faster store check-out, so want more personnel devoted to check-out, whereas the high-service customer may want more floor personnel available to answer questions.

(3) Should a firm encourage customers to be multichannel?

A likely consequence of a customer satisfaction strategy is that many of the firm’s customers will use more channels. The question is whether in fact the multichannel customer becomes a happier customer. A key and highly suggestive empirical finding is that multichannel customers tend to have higher sales volumes than single-channel customers. Does this support the customer satisfaction strategy? Blattberg, Kim, and Neslin (2008, Chapter 25) suggest that the answer is affirmative if the strategy increases loyalty or marketing response, but negative if it decreases loyalty, has no impact on marketing response, or just offers customers greater convenience, without increasing the firm’s share of customers’ wallets. What happens if all firms encourage customers to be multichannel? Does this precipitate a prisoner’s dilemma? Because a multichannel customer is more valuable to the firm, a firm may be tempted to move as many customers from single channel to multichannel. Is this an effective, if not ideal strategy?

The empirical evidence that the average multichannel customer buys more and is more valuable than the single channel customer is reaching the point of an empirical generalization (Neslin, Grewal, Leghorn, et al. 2006; Kumar and Venkatesan 2005; Myers, Van Metre, and Pickersgill 2004; Kushwaha and Shankar 2007a; Ansari, Mela, and Neslin 2008; DoubleClick 2004; Thomas and Sullivan 2005). Kushwaha and Shankar (2008a), in an analysis of a random sample of 1 million shoppers purchasing 24 product categories from 750 retailers over a four-year period, show that the monetary value of an average multichannel customer is about $467 and $791 more than an average offline only and online only customer, respectively. Thus, the equity or value of multichannel customers is much higher than single channel customers. One subtlety to the general finding, noted by Thomas and Sullivan (2005), is that not every two-channel combination is better than every single combination, but adding another channel to a given channel is associated with a more valuable customer. That is, the customer who purchases from the Web and the catalog may not be as valuable as the customer who purchases from the store. But the customer who purchases from the Web and the store is more valuable than the customer who purchases just from the Web, or just from the store.

The main question we need to resolve is whether the *association* between multichannel and purchase volume is *causal*. It may be that multichannel usage encourages customers to buy more, or heavy volume customers naturally utilize more channels, or some third factor, e.g., brand loyalty, causes customers to be both high volume and multichannel. Sorting through this will allow firms to decide whether to adopt a customer satisfaction strategy and encourage multichannel purchasing. Note however, that even if the relationship is

[2] See Blattberg, Malthouse, and Neslin (accepted for publication) in the next issue of *JIM* for further discussion of branding issues and customer management.

causal, the costs of creating multichannel customers may not be worth the benefits if the sales growth comes from competitors. In that case, we are merely creating a prisoner's dilemma as each firm is compelled to add channels.

(4) Is multichannel marketing a potential source of competitive advantage?

In finalizing the firm's multichannel strategy, a crucial task is to consider the competition. The multichannel company operating in a competitive environment faces a fundamental conundrum: Is multichannel marketing just a prisoner's dilemma in sheep's clothing, whereby Firm A is compelled to add a new channel just because Firm B has it (Neslin, et al. 2006)? Or is it an approach to develop enduring competitive advantage?

Very little research has investigated this issue. We do know through empirical studies that channels are perceived differently by customers (Verhoef, Neslin, and Vroomen 2007), suggesting that multichannel efforts might be a way for firms to differentiate. In an important economic analysis, Zettelmeyer (2000) shows that in equilibrium, some firms may choose to differentiate themselves from the others based on how much information they provide in one channel versus another. Pan, Ratchford, and Shankar (2007) show that multichannel and pure play Internet retailers might co-exist in equilibrium by providing different levels of service at different prices.

What we need to know are answers to the following questions. Do customers perceive the same channel differently from one firm to another firm? The analysis by Verhoef, Neslin, and Vroomen (2007) is at the channel level, not the channel-firm level. Do customers choose channels or choose firms first? Which is the primary choice decision?

Using the resource-based view of the firm, there are four routes to convert a capability to a competitive advantage: heterogeneity, ex-post limits to competition, imperfect mobility, and ex-ante limits to competition (Peteraf 1993). Heterogeneity means that firms differentiate on the capability; ex-post limits mean that the capability is difficult to copy once established; imperfect mobility means that competitors cannot hire away the personnel or equipment the firm uses to establish its capability; ex-ante limits refer to first-mover advantage. The question is, do any of these conditions apply to the case of multichannel strategy? For example, could a customer-satisfaction based multichannel strategy become a sustainable competitive advantage for the firm? We need to know if some companies are better at using channels to generate customer satisfaction than others, and if so, why and is this capability difficult to imitate? It would appear that no matter which strategy is pursued, the management of customer data could become the source of competitive advantage (e.g., see Chen, Narasimhan, and Zhang 2001). Which strategies benefit from better data management? These are crucial questions, for if multichannel marketing is not a route to establishing competitive advantage, it could very well be a route to a high cost prisoner's dilemma.

(5) Which channels should a firm employ?

Moving from strategy development to channel design, the first question is: Which channels? Firms face two key questions in deciding which channels it should employ: (1) How should this decision be made? Is there a simple cost-benefit approach? (2) Once the firm has selected its channels, how should it allocate its resources across channels? Which channels should be emphasized? De-emphasized?

Our current knowledge of these issues is limited. Certainly, not all firms use channels to the same degree (e.g., Amazon does not use physical stores, whereas Barnes and Noble uses both physical and online stores). We know that a firm's channel choice influences the prices of its products and ultimately, its profits (Chu, Chintagunta, and Vilcassim 2007), but we have not derived cross-industry generalizations that could identify the factors that lead to various "industry channel structures" and profits. One potential consideration in deciding on the channels to employ is cross-channel cannibalization versus synergy. There is an interesting initial work in this area. For example, there appears to be minimal cannibalization between the online and offline channels in B2C contexts (Biyalogorsky and Naik 2003; Deleersnyder, Geyskens, Gielens, et al. 2002; Pauwels and Neslin 2008) although retail stores appear to cannibalize catalogs (Pauwels and Neslin 2008).

Marketing efforts in one channel can enhance sales through another channel. For example, Pauwels and Neslin (2008) find that catalog mailings enhance sales not only through the catalog channel, but through the online and store channels in both the short and long terms. In an analysis of insurance services, Shankar and Kushwaha (2008) find that the Web, call center and exclusive agent channels are complementary, while independent and exclusive agent channels are substitutes. Different channel segments respond differently to marketing mailers and for different components of purchase such as purchase timing and frequency, so a firm should use this knowledge to allocate its marketing resources across customer channel segments (Kushwaha and Shankar 2008b). Kushwaha and Shankar (2008b), in an analysis of data from a large apparel and shoes accessories firm, find that the store-only segment offers the highest margin; the Web-only and multichannel segments are more list-price sensitive, whereas the store-only segment is more discount sensitive; and the average returns are highest for the multichannel segment and lowest for the Web-only segment. Using this knowledge, they show that marketing efforts can be more efficiently allocated across the channels.

Nevertheless, there are important gaps in our knowledge. What is the 'cross-elasticity' matrix capturing the impact of the presence of one channel on sales activity in another channel, and how does this vary across industries and firms? In other words, what impact does the *presence* of one channel have on sales through another channel? Although the Web may not hurt sales through other channels, store sales may hurt catalog sales, but not Web sales. Moreover, the Web and call center may be complementary with exclusive sales force, but could be competing with an independent sales force. These effects need to be further studied for generalizability. Do multiple

channels provide firms with benefits and opportunities to deepen customer relationships? The benefits could arise from leveraging research shopping behavior of some customers or through cross-channel promotions. How can firms collect this information to determine their optimal channel mix? How can they incorporate information on competition into this analysis? One way to do this is to expand the model of Chu, Chintagunta, and Vilcassim (2007) to incorporate the endogeneity of the channel introduction decision.

Overall, the fundamental need is for a model or decision support system to enable firms to decide which channels to employ. Certainly the cross-channel elasticity matrix and competitive response would be key elements of this system, and we have some initial research in these areas. Shankar and Kushwaha (2008) find that the Web, call center and exclusive sales force have complementary cross-channel effects, but exclusive sales force and general sales force have substitute cross-channel effects. But we need to integrate these findings with an understanding of how to turn potential channel cannibalization into channel synergy and of how channels interact and reinforce each other in the long term.

(6) How should a firm utilize channels to manage the customer life-cycle?

An important design decision is channel functionality — i.e., which channels should perform which aspects of customer management. For example, different channels may be more appropriate for various stages of customer relationships. It seems natural to use different channels for acquisition, development, retention, and decline phases. The key issues in this regard are: Can this channel functionality work? If so, how should firms implement it?

Important initial work sheds light on using multiple channels to manage customer acquisition. For example, different channels have different acquisition costs (Villanueva, Yoo, and Hanssens 2008). Perhaps a more tantalizing result is that different channels acquire customers with different lifetime values to the firm (Verhoef and Donkers 2005; Villanueva, Yoo, and Hanssens 2008). For example, Verhoef and Donkers found that customers differed in retention rates and cross-buying propensity depending on the channel through which they were acquired. These findings open the possibility of optimizing acquisition expenditures across channels, while taking into account the lifetime value of the customer.

What we need to know more about are answers to the following questions. Can a firm enhance the long-term value of a customer by the nature of its acquisition activities in that channel? Perhaps the firm can use channel-specific pricing strategies to set expectations (Blattberg, Kim, and Neslin 2008, Chapter 29). What are the best channels for managing acquisition, development, retention, and decline? Prior studies examine acquisition efforts, but the findings may not be enough to generalize to all stages of customer life cycle. Perhaps the most crucial overall question is whether and how should customers be "handed off" from one channel to another to match channels to customer lifecycle phases?

(7) How can the firm harness research shopping?

An important issue related to channel functionality is the design of channels for customer information gathering ("research") versus shopping. The research shopper phenomenon, whereby the customer researches on one channel and shops on another, has received much attention (Verhoef, Neslin, and Vroomen 2007). There are three basic behaviors, two of which entail research-shopping. These behaviors are shown in the table below:

Channels searched	Channel of purchase	Shopper type
Channel A of Firm 1	Channel B of Firm 2	Competitive research-shopper
Channel A of Firm 1	Channel B of Firm 1	Loyal research-shopper
Channel A of Firm 1	Channel A Firm 1	One-stop shopper

There are two types of research shoppers — the competitive research shopper who searches at one firm, but purchases from another (e.g., research at Best Buy's website, but buy at the Wal-Mart physical store) and the loyal research shopper who searches and purchases from the same firm, albeit from different channels (research at Best Buy website and buy from Best Buy store).[3] A firm's challenge in managing research shopping is to design its channels so as to grow or at least maintain its loyal research shopper base and ensure that it gets its share of the competitive research shoppers. Another possible challenge is to convert one-stop shoppers to loyal research shoppers if the one-stop shopper is using a higher-cost channel for search (e.g., the firm's call center).

Research shopping is driven by three forces: attribute differences, customer lock-in, and cross-channel synergy (Verhoef, Neslin, and Vroomen 2007). Attribute differences between channels refer to a situation in which one channel (e.g., the Web) is good for search because it is convenient and flexible, while another channel (e.g., the retail store) is good for purchase because the customer can actually see and feel the product, and the transaction is private. Customer lock-in refers to the ability of a channel to hold onto a customer — e.g., it is much easier for a customer to leave a website than to walk out of store while being waited on by store personnel. Cross-channel synergy refers to the increased effectiveness of a channel on a customer because the customer has used another channel from the same firm. For example, a customer may use the Web to understand the key issues involved in selecting an HDTV, so the customer knows how to compare products and interact with salespersons once he/she is in the store to make the final purchase. What we know is that researching on the Web and buying at a physical store appears to be the most common form of research shopping (DoubleClick 2004; Verhoef, Neslin, and Vroomen 2007). We also know that attribute differences, customer lock-in, and cross-channel synergy, all play a role in research shopping. For example, Verhoef, Neslin, and Vroomen

[3] Obviously, the customer could search on both firm's channels before purchasing from the focal firm. We would classify this customer as a competitive research shopper, because the key aspect of the behavior is searching over competitive channels.

(2007) find that the popularity of Web-search/retail-store-purchase type of research shopping is due to all three of these forces.

What we need to know is whether the popularity of "Web-search/retail-store-purchase" shopping is a long-term generalization or just due to the early stages of the Internet. Another key question is whether, in a competitive environment, firms should encourage research shopping. It may be economical for the loyal research shopper to search on a Company A's website and then buy at its store. However, websites have lower lock-in, and the loyal research shopper may be vulnerable to competitive offers that are delivered on the Web. Such offers may make it attractive for Company A's "loyal" research shopper to investigate Company B's website and end up purchasing from Company B's store. What methods (including channel design and incentives) work best for ensuring that a firm wins the battle for the competitive research shoppers? Instead of encouraging customers to check out its website in the hope that they would call the firm or visit its store, should the firm encourage its customers to use the website for research *and* purchase?

(8) Should customers be "right channeled?" If so, how?

The presumption of a customer segmentation multichannel strategy, and even of a cost-reduction strategy, is that certain customers should use certain channels. Ideally, the firm could simply provide the "menu" of potential channels and the customer could self-select into the appropriate channel. For example, Dell Computer designs its website so that individual customers use what might be called the "Home Computer" Internet channel, and businesses use what might be called the "Small Business" Internet channel.[4] However, customers may not naturally use the channel the firm deems optimal. The question is, should customers be "right-channeled," i.e., encouraged or forced to use certain channels. If so, how can this result be accomplished? The danger of course is that customers may be turned off by being coerced into using channels contrary to their preferences.

We are beginning to generate an understanding of some of the basic issues in right-channeling. Venkatesan, Kumar, and Ravishanker (2007) analyze possible approaches to facilitating right-channeling by studying time to adoption of a customer's first and next channels. Knox (2005), Thomas and Sullivan (2005), and Ansari, Mela, and Neslin (2008) also show that communications efforts influence channel choice. A significant advance has been made by Sun and Li (2005), who formulate a customer-level dynamic optimization that routes customers to the appropriate call-center, taking into account which channel is more economical for the company, as well as the potential impact on individual customer satisfaction and ultimately, retention.

We still need a clearer understanding of several issues with regard to right-channeling. Sun and Li's analysis is for a particular context, where customers can be seamlessly routed to different channels (different call centers). How can we extend this analysis to a multiple channel context, where customers may have to be *encouraged*, not assigned, to use different channels? Does right-channeling cause resentment and jealousy among customers? Do the "regular" customers resent the "preferred" customers? The danger here is that right-channeling could hurt customer retention. In that vein, can right-channeling be achieved through incentives and self-selection rather than strong-armed methods?

(9) Can a multichannel customer strategy increase marketing efficiency and effectiveness?

Moving to the Implementation stage of the MCMD framework, a key issue is whether firms can take advantage of the multichannel environment to create more effective marketing programs. There are three possible ways this can be accomplished. The first way is through simple economies of scale. Having more channels means more marketing opportunities, and the marginal cost of marketing (e.g., more catalogs, more emails, more TV advertising exposures) should decrease as a function of marketing effort. The second way is through economies of scope. Having more channels may mean that marketing costs can be shared across channels, making it more economical for the firm to market its products. A company with a single channel may need a marketing department of 50 marketing experts; a two-channel company may need a marketing department of 70, because many of the same skills of these marketing professionals can be shared by the channels. For example, a marketing analytics group created for managing a single channel may be adequate to analyze two channels, without the need for adding more analysts.

The third way that integrated multichannel marketing can improve marketing efforts is through coordinated marketing programs. These programs can take the form of traditional integrated marketing communications tactics such as the consistent use of the same logo or value proposition in all the channels. Another promising area is cross-channel promotions. For example, a firm may offer Internet purchasers a discount if they pick up the ordered items at the store. Once in the store, the customer may purchase additional items. An inter-channel cross-selling promotion might entail a coupon offered to Internet users for purchasing an item in a retail store. The objective of such a promotion could be to increase store traffic. Going the opposite way, a retail store may offer a customer at the checkout counter a coupon that can be used for online purchases. The firm's motivation for such a promotion is to migrate the customer to use a lower cost channel, namely, the Web.

We really do not have a good understanding of any of these issues. Retailers use simple promotions like incentives to order on the Web and pick up or return at the store, but not much is known about their effectiveness. Can firms actually use promotions in one channel to entice or enhance purchases in another channel? Does integrated marketing communication across channels work? Do the arguments for economies of scale and scope actually work out in the real world?

[4] We thank the Editor for suggesting this example.

(10) What organization structure (coordinated or independent) should a firm use?

Another key implementation issue is: what organization structure best enhances the potential gains from multichannel customer management? It is natural for businesses to operate their channels through independent "departments." The reason is that different channels require different skills and personalities. For example, the Web is more dynamic and keeps constantly evolving. In contrast, stores are more stable. Furthermore, the Web and catalog can be quickly personalized, but stores cannot be easily tailored to customer needs. Moreover, managing a sales force is quite different from running a website. Therefore, most firms have different entities, even "divisions," running their businesses through different channels. The Web channel is a particularly interesting case in point. In the late 1990's, when the Web became a popular channel, many firms felt the imperative to have an Internet "presence" and hence set up independent organizations to establish that presence. That legacy still is with us today. For example, J.C. Penney operates its store and Internet channels as separate business divisions. Other firms may not be as formal about this, but the "Internet Group" still may stand on its own in many companies.

A specific question of interest is: To what extent should these organizations be coordinated versus independent? In economic terms, a fully coordinated organization means joint decision-making that optimizes total firm profits without paying attention to individual channel "needs." In an independent organization, each channel conducts its business as a separate profit center. Are firms better off treating multiple channel management as separate business units? Or do they stand to gain by having an integrated business unit?

We have a good theoretical understanding of some of these issues. We know that lack of channel coordination can lead to "inefficient" or sub-optimal expenditure decisions. We illustrate this result through a simple example. Assume that a firm markets through two channels, c1 and c2. Furthermore, assume that marketing expenditures in channel $i(e_{c_i})$ affect sales in channel $i(S_{c_i})$ as well as sales in channel $j(S_{c_j})$. The effect of channel i's expenditure on channel i's sales is captured by β_i, while the effect of channel i's expenditure on channel j's sales is captured by γ_i. We assume $\gamma_i > 0$, meaning that each channel's expenditures cannibalizes the other channel's sales. For simplicity, we assume the price P is the same in both channels. Assuming diminishing returns to marketing expenditures, the sales and profits Π_{c_i} in each channel can be modeled as:

$$S_{c_1} = \alpha_1 + \beta_1\sqrt{e_{c_1}} - \gamma_2\sqrt{e_{c_2}} \quad (1)$$

$$S_{c_2} = \alpha_2 + \beta_2\sqrt{e_{c_2}} - \gamma_1\sqrt{e_{c_1}} \quad (2)$$

$$\Pi_{c_1} = PS_{c_1} - e_{c_1} \quad (3)$$

$$\Pi_{c_2} = PS_{c_2} - e_{c_2} \quad (4)$$

If the firm runs the two channels as separate businesses, separate optimization of the two channels yields the following optimal marketing expenditures in each channel:

$$e^*_{c_1} = \left(\frac{P\beta_1}{2}\right)^2; e^*_{c_2} = \left(\frac{P\beta_2}{2}\right)^2 \quad (5)$$

If the firm runs the two channels as an integrated business, then joint optimization yields the following expressions for optimal marketing expenditures in each channel:

$$e^*_{c_1} = \left(\frac{P(\beta_1 - \gamma_1)}{2}\right)^2; \; e^*_{c_2} = \left(\frac{P(\beta_2 - \gamma_2)}{2}\right)^2 \quad (6)$$

Joint optimization decreases the firm's total marketing expenditures because each channel realizes that its efforts might cannibalize sales through the firm's other channel. With separate optimization, both channels will recklessly overspend. This "overspending" can take the form of targeting the same prospects or the same current customers and can be a real problem in organizations.

Substituting Equations (5) and (6) into (1) through (4), calculating total profits for coordinated versus integrated optimization, and subtracting difference, yields the following result:

$$\Pi_{\text{Coordinated}} - \Pi_{\text{Independent}} = \frac{P^2}{2}\left\{\frac{\gamma_1^2}{2} + \frac{\gamma_2^2}{2}\right\} \geq 0. \quad (7)$$

Equation (7) shows that coordinated marketing spending produces superior profits than independent marketing spending to the extent that the cross-marketing elasticities between the channels are stronger. Note that while we have been thinking of the elasticity parameters γ_1 and γ_2 as positive, meaning cannibalization between channels, integrated marketing is superior to independent marketing even if the cross elasticity parameters are negative, that is, when there is synergy between channels. In this case, Equations (5) and (6) tell us that the independent channels *under-spend* because they do not realize that their expenditures help the firm's other channel. Thus, the inefficiency of independent channels is invariant to the direction of interaction (substitution or complementarity) between the two channels.

Berger, Lee, and Weinberg (2006) explore this issue in greater detail. In general, "headquarters" must decide how much it should spend on the direct channel (the Internet) and by how much it should subsidize the marketing expenditures of its "branch offices." The authors examine three cases: (1) Separate (independent) channels, (2) Integrated channels with "headquarters" as the Stackelberg leader, and (3) Fully integrated channels. Headquarters decides: (1) how much to spend on the Internet and (2) what proportion of a branch's marketing expenditures should be subsidized. In the Stackelberg case, headquarters make these decisions taking into account the branch's reaction in its own expenditures, that is, headquarters act as a Stackelberg leader. The authors show that the relationships among firm profits in the three cases are as follows: Profits (Fully integrated) > Profits (Stackelberg integrated) > Profits (Independent channels).

Table 1
Summary of key issues in multichannel customer management

Key issue	Critical questions	What we know—current evidence	Key challenges
1. How should a firm segment customers in a multichannel environment?	1. Should multichannel shopping be incorporated into segmentation at all? 2. If so, what should be the measures on which the segmentation is based?	1. Customers differ in channel usage. 2. Customers that differ in channel usage differ in other characteristics as well. 3. Customers differ in preference and marketing response per channel; models exist to measure these differences.	1. Obtain measures of usage, preference, or responsiveness for each customer. 2. Determine the most worthwhile segmentation basis – usage, preference, or responsiveness. 3. Determine the stability multichannel segmentation schemes?
2. Is multichannel strategy about efficiency, segmentation, or customer satisfaction?	1. What should be the guiding “vision” of the firm’s multichannel strategy? 2. Is it plausible to implement an “all-channels-for-all-customers” strategy profitably?	1. Multichannel strategy has implications for organization design. 2. Multichannel usage is associated with higher customer loyalty.	1. How circumvent strategic conflicts such as lower customer satisfaction that may result from an efficiency-driven strategy? 2. Sort out the causal relationship between multichannel usage and loyalty. 3. Under what circumstances should efficiency, segmentation, or satisfaction be the driver of strategy?
3. Should a firm encourage customers to be multichannel?	1. Does multichannel usage *cause* customers to be more valuable customers? 2. If so, does this additional sales volume come from market growth or from competition?	1. Multichannel purchasing is *associated* with higher purchase volume.	1. Determine how to translate multichannel shopping into increased purchase volume, i.e., how to make the relationship causal. 2. Determine which customers will respond positively to multichannel usage; which will be unaffected or even adversely affected. 3. Determine whether to encourage multichannel purchasing even if the additional volume generated comes mostly from the competition.
4. Is multichannel marketing a potential source of competitive advantage?	1. Is multichannel simply a prisoner’s dilemma where no firm wins? 2. Are there ways for firms to enhance profits through multichannel differentiation?	1. Consumers notice and perceive benefits and costs differently across channels. 2. Differentiation based on information provided per channel is a potential economic equilibrium.	1. Determine how to create competitive advantage from a multichannel marketing strategy.
5. Which channels should a firm employ?	1. How should a firm decide the appropriate channel mix? 2. Once decided, how should a firm allocate resources across channels?	1. Firms use different channels. 2. Channel decisions affect prices. 3. The Web tends not to cannibalize other channels.	1. Measure the complete cross-channel elasticity matrix. 2. Learn how to turn channel cannibalization into channel synergy. 3. Develop a normative model for determining the firm’s channel mix.
6. How should a firm use channels to manage the customer life-cycle?	1. Should firms “assign” customers to different channels as they progress through their life-cycle?	1. Channels have different acquisition costs. 2. Customers acquired via different channels have different lifetime values.	1. Enhance customer lifetime value by using each acquisition channel effectively. 2. Determine the best channels for acquisition, retention, and development. 3. Learn how to “hand off” the customer from channel to channel over the life-cycle.
7. How can the firm harness research shopping?	1. How to ensure a sizeable share of the competitive research shopper? 2. How to keep the loyal research shopper loyal? 3. Should the firm convert one-stop shoppers to loyal research shoppers?	1. Research shopping caused by attribute differences, channel lock-in, and channel synergies. 2. Web-to-Store is currently the most popular form of research shopping.	1. Determine how to maximize profits from competitive and loyal research shoppers. 2. Determine whether and how to convert one-stop shoppers to loyal research shoppers. 3. Determine trends in the popularity of Web-to-Store research shopping.

(continued on next page)

Table 1 (*continued*)

Key issue	Critical questions	What we know—current evidence	Key challenges
8. Should customers be "right channeled"? Is so, how?	1. Should customers be encouraged to use the "optimal" channel? 2. Should customers be *forced* to use the "optimal" channel?	1. Marketing communication can influence channel choice. 2. Optimization models that prescribe the right channel for a customer can be formulated.	1. Determine which incentives work best for right-channeling customers without alienating them. 2. Learn how to provide some customers "better" channels while avoiding resentment from other customers.
9. Can a multichannel customer strategy increase marketing efficiency and effectiveness?	1. Does multichannel create economies of scale? 2. Does multichannel create economies of scope? 3. Are cross-channel synergies achievable through marketing?	1. Firms are beginning to use cross-channel promotions, e.g., incentives to purchase on the Web and pick up at the store.	1. Create economies of scale through multichannel. 2. Create economies of scope through multichannel. 3. Enhance performance in one channel through marketing in another channel.
10. What organization structure (coordinated or independent) should a firm use?	1. Which structure produces higher profits – coordinated or independent – and under what circumstances?	1. Economic argument is compelling for a coordinated structure.	1. Determine what factors may counter-balance the economic case for coordination. 2. Learn how to compensate executives when using a coordinated structure.
11. How should a firm coordinate products and prices across channels?	1. Should prices be the same in each channel? 2. Should products be the same? 3. If products and/or prices are to be different, how determine the mix?	1. Multichannel firms charge more than pure-play Internet firms. 2. In theory, "branded variants" can prevent channel conflict.	1. Implement different prices without alienating customers or channel members. 2. Decide which channels should carry which products at what prices. 3. Communicate a product/price integrity strategy (same price/same product) to customers.
12. Can the firm afford the single view of the customer required for evaluation?	1. Are the gains in having a single view for more customers worth the incremental cost?	1. Decreasing returns to more single-view customers and convex costs suggest it may not be worth it to have a single view of all customers. 2. Some evidence that customer information systems can enhance firm performance	1. Determine, in quantitative terms, the gains of single view. 2. Obtain, in practical terms, a single view of the customer for when customers use channels anonymously.
13. How can the firm award "credit" to the appropriate channel?	1. If Channel A provides information and the customer orders through Channel B, how do we quantify the value of Channel A?	1. Channels "feed" off each other, due to research shopping. 2. Marketing activities through Channel A can enhance sales in Channel B.	1. Decompose the firm's revenues into the contribution provided by each channel.

The above analysis assumes that coordination is not only about marketing expenditures, but coordination is also about the messages and experiences produced by those expenditures. It seems likely that coordinated channels would be most consistent with developing a clearly-defined brand. Independent decision-making at the channel level easily could produce communications and pricing decisions that are inconsistent across channels and therefore detract from the overall clarity of the brand meaning (see Calder and Malthouse 2005). This might actually be desirable if the firm is implementing a segmentation strategy and wants to use different channels to serve different customers with different needs. However, this could be damaging if the firm were implementing a customer satisfaction multichannel strategy.

The above theoretic analysis makes a compelling economic argument for channel coordination of marketing expenditures. However, we need to understand whether the organizational costs of coordination may counter-balance this economic benefit. These costs might be higher because of one or more of the following reasons. One channel may need to move faster than the other. Furthermore, it may be difficult to reward channel managers based on their sales because under the coordinated structure, their channels may generate fewer sales than under an independent structure. In fact, if we consider the research shopper phenomenon, one channel may function mostly as an information source for customers, while another channel may serve as the transaction channel. In that case, it is very difficult to determine which channel manager should be "rewarded" for a sale (see Issue #13). This problem is *very real* for many firms. What reward structure would be appropriate in this case? In general, how can firms retain the benefits of channel coordination without incurring excessive costs?

(11) How should a firm coordinate products and prices across channels?

A final crucial issue in implementation is coordination of the marketing mix across channels. Should a firm sell the same

products across different channels? Furthermore, if the firm sells the same products in multiple channels, should the prices of those products be the same? If the firm wants to charge different prices, can this be done profitably, without confusing or "turning off" customers?

Part of the answer may lie in the firm's multichannel customer segmentation scheme. That is, if customers are segmented on the basis of their responsiveness, it may be that customers of Channel A are less price-sensitive than are customers of Channel B. In that case, the firm may charge higher prices in Channel A than in Channel B. This result could be achieved by carrying better quality merchandise in Channel A, or carrying the same quality merchandise, but offering better service in Channel A than in Channel B.

We have some knowledge about these issues. We know that both posted prices as well as price net of shipping costs, are usually, although not always, higher for multichannel retailers than they are for pure play Internet retailers (Ancarani and Shankar 2004). Furthermore, price sensitivity is no greater online than offline (Shankar, Rangaswamy, and Pusateri 2001) and price dispersion online, i.e., different firms charging different prices for the same item on the Internet channel, is persistent and not adequately explained by retailers' service factors (Pan, Ratchford, and Shankar 2002). These results suggest that multichannel firms provide extra benefit to customers, enabling these firms to charge higher prices than those of pure play Internet firms. However, the question is whether these inter-firm differences in prices translate to intra-firm difference in price across channels. Because differential prices across channels may potentially lead to customer confusion and resentment and channel cannibalization and conflict, it appears that firms typically charge the same *posted* prices across channels (Pan, Ratchford, and Shankar 2004). However, the firm might effectively charge different prices by channel-specific use of price promotions or through shipping and handling fees. Another way to charge differential prices and avoid conflict is to sell similar, but not exactly the same items in different channels—a practice known as marketing of branded variants (Bergen, Dutta, and Shugan 1996).

There are still many unanswered questions on this issue. The fundamental questions are: (1) How to manage *differences* in prices and products, and (2) How to manage *similarities* in prices and products? Regarding differences, can a firm actually charge different posted prices for the same item in different channels? As mentioned above, there may be differences in paid prices as paid prices will be net of additional components such as taxes, shipping and handling fees, and channel-specific discounts. The viability of such a practice will depend on how much of the differences in prices and products do customers notice and how deeply they care about such differences (see Morwitz, Greenleaf, and Johnson 1998). Regarding similarities, should firms advertise the degree of product overlap? Under what conditions does price and product integrity, that is, having the same prices and products, respectively, at all channels, enhance rather than cannibalize firm performance in other channels?

(12) Can the firm afford the single view of the customer required for evaluation?

One of the requirements for successful evaluation of the multichannel strategy and implementation, *from a customer's perspective*, is to obtain data on how each customer utilizes each channel (see Neslin, Grewal, Leghorn, et al. 2006). This is critical for evaluating several facets of the strategy: If the firm is pursuing a segmentation approach, are the right customers using the right channels? If we are trying to manage research shopping, do the right customers use Channel 1 for research and Channel 2 for purchase? Are our marketing efforts merely shifting sales from Channel 1 to Channel 2?

Neslin, Grewal, Leghorn, et al. (2006) argue that a 100% single view, i.e., knowing what *all* customers do on *all* channels, may not be necessary, since there may be decreasing returns to obtaining a single view of more customers, but convexly increasing costs. However, they do cite Zahay and Griffin (2002) as providing evidence that the quality and availability of the firm's customer information system enhances firm performance.

The key questions here are: (1) In quantitative terms, what are the gains to increased single view versus the cost? (2) What are more economical and practical ways of producing a single view? For example, how can the firm identify which customers are using the website for browsing if they do not register their names? How can the firm identify which customers shop in their stores, if these customers pay in cash? (3) What are ways to leverage less than 100% single view coverage so as to evaluate the multichannel plan? There are challenging selectivity issues here, for the firm may most easily be able to gather single view coverage on its best customers. This makes it difficult to project to the entire customer base.

(13) How can the firm award "credit" to the appropriate channel?

A very practical issue is how to "credit" the appropriate channel for a sale. For example, if the customer research shops the Internet channel but buys at the store, which channel generated the purchase? This is a difficult question and can produce divisive organizational issues. For example, if the website has an ordering capability, but customers use it only for gathering information, the website will not appear to be important since only few sales take place through that channel. But the sale, which takes place in the store, might not have taken place at all had the customer not first checked out the firm's website.

Researchers, to our knowledge, have not tackled this problem directly. However, it is clear that the various channels interact and feed off each other. For example, Ansari, Mela, and Neslin (2008) show that catalog mailings encourage some customers to purchase on the Internet. The sale takes place on the website, but was generated by the catalog. Pauwels and Neslin (2008) show similar results, for example, that emails can help generate store sales as well as Internet sales. As mentioned earlier, Verhoef, Neslin, and Vroomen (2007) show that research shopping is a real phenomenon. This suggests that in

a multichannel environment (except perhaps one based very strongly on a segmentation strategy), all channels are crucial and feed off each other.

We need to develop methods for decomposing the firm's revenue by the channel that produced it. For example, what percentage of a firm's sales is attributable to the Internet? This, in turn, requires a complete knowledge of the role that researching, sales, and after-sales play in generating revenue. An interesting study would be to compare this decomposition to the decomposition derived most easily, namely, what percentage of sales is made at each channel?

Summary

We have presented a customer-management based framework for guiding a firm's multichannel decisions, and used the framework to identify and review several key issues. The multichannel customer management decision (MCMD) framework identifies the steps managers must take in developing and implementing a multichannel strategy. These steps are: (1) Analyze customers, (2) Develop a multichannel strategy, (3) Design channels, (4) Implement, and (5) Evaluate. Each of these stages suggests a host of issues. This means that customer management is an important consideration throughout the process of developing and implementing multichannel strategy. We have identified 13 issues corresponding to this process, summarized what we know about them, and what we need to know.

Table 1 summarizes the 13 key issues and the primary questions they suggest, what we know about the issue, and what challenges lie ahead. Each of these issues is daunting despite the important research progress that has been made to date. Our hope is that this paper helps both the academic and practitioner communities to collect their thoughts, conduct the appropriate research, and move forward on the topic of multichannel customer management.

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