Service delivery across multiple direct channels: Is more better?

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Abstract

Direct channels exhibit different capabilities in delivering services. Phone-based channels, for instance, provide customers with a more personal level of contact with service providers, relative to the level of contact available through Internet-based channels. When relying on phone-based or Internet-based channels, service providers need to decide which interactive activities will be offered in each channel and whether for each activity a single or a multichannel strategy will be adopted. We develop and discuss several hypotheses about the conditions supporting the convergence of customer preferences for one direct channel over another and the implementation of a single-channel strategy.

Keywords: service operations, service design, multi-channel services.

Introduction

In recent years, many multichannel (MC) service providers have set-up direct channels of service delivery, notably Internet- and phone-based, to complement their existing physical channels. In general, direct channels tend to offer increased convenience, transactional efficiency, information availability and accessibility, while physical channels typically rank higher in terms of the richness and complexity of customer interaction that they can handle, the level of security that they can offer, and their ability to enable customers to touch and test different products before buying them (e.g., McKnight et al., 2002).

Channels can be seen as platforms which support service processes that involve customer interactions. They provide "visible" interfaces to customers who use them to engage in service activities (Sousa and Amorim, 2009). Direct channels, in particular, exhibit different capabilities in delivering services, depending on the type of technology that they use. Phone-based channels, for instance, provide customers with a more personal level of contact with service providers, relative to the level of contact available through Internet-based channels (Coelho and Easingwood, 2008; Keeney, 1999). Therefore, when relying on phone-based or Internet-based direct channels, service providers need to decide which interactive activities will be offered in each channel and whether for each activity a single-channel or an MC strategy will be adopted. The effectiveness of these decisions is strongly determined by customers' willingness to use each direct channel to execute the offered activities. If, for a given activity, the target customers

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overwhelmingly prefer a particular channel, this would favor adopting a single-channel strategy to offer the activity exclusively through the customer-preferred channel. However, if significant customer groups differ in their preferences, an MC strategy may be necessary. Through an MC strategy, the service provider would offer customers the choice of using phone- or Internet-based channels to receive the same services. However, because this strategy will be more costly to implement, it is important to have a deep understanding of i) how the characteristics of the service activities influence the users' channel preferences (single vs. multi-channel phone/Internet) based on the channel attributes; ii) the degree to which there is heterogeneity in customer preferences for different channels; and iii) the extent to which these preferences evolve over time.

To address these issues, this paper reviews the literature and develops several hypotheses about the conditions supporting the convergence of customer preferences for one type of direct channel over another and the implementation of a single-channel strategy. We discuss the hypotheses and describe ongoing research geared towards the testing of the hypotheses.

Literature review
Characteristics of the service activities and customer channel preferences
Research has shown that the characteristics of service activities influence customers' channel preferences, based on the channel attributes. Overall, the complexity of a given service activity and the importance of its implications for the customer seem to play a key role in customers' channel selection. On one hand, complexity is associated with non-routine or non-standard customer interactions (van Birgelen et al., 2006), as well as with service activities which require specific knowledge or analysis of complex information. An example of complex service activities is the contracting of financial products or services (Frambach et al. 2007). On the other hand, the importance of a given service activity is related to the extent of its effects on customers' welfare (e.g., on customers' assets or possessions) and the risk that it can have on customers' welfare if it is not well executed. In banking, for example, service activities of high importance include the formalization of a mortgage contract, which implies a long term commitment, or the subscription of a financial application with substantial duration. In general, service activities related to the purchasing or contracting stages of the service delivery process are perceived to have a higher importance than other activities (Frambach et al. 2007). Past research has suggested that customers are likely to select channels with increased personal contact for conducting complex and/or high importance activities in order to obtain advice and reassurance about the activities performed (Xue et al, 2007).

The volume or frequency with which activities are executed is also likely to explain a great deal of customers' channel preferences. For frequently used activities, convenience, waiting time, transaction efficiency, and extended access to the service at any hour of the day are important requirements (Boyer and Frolich, 2006; Wallace et al, 2004; Zeithaml et al. 2002). This is even more so if the activities are routine and standardized (Birgelen et al., 2006). Typically, Internet-based channels are superior in this respect, followed by phone-based channels and physical channels.

This match between the characteristics of service activities and the different service channels has also received attention in the service design literature. Boyer et al. (2002) propose that there should be a strategic fit between service operations and the design of service processes. These

authors developed a service strategy design matrix that relates the type of customer mediation adopted by service providers (from face to face delivery to full self-service channels) to the characteristics associated with the service process activities (e.g. complexity, volume). According to this service strategy design matrix, routine activities such as transactions (e.g. withdrawal and deposits in banking services) can be delivered efficiently through automated interface alternatives because they are highly standardized, simple to execute and have sufficient volume (Boyer et al., 2002). For complex activities (e.g. complex banking products such as mortgages or brokerage products) service interfaces which allow for personal contact between the provider and the customer are considered to offer a better design fit.

Heterogeneity in customer channel preferences
In choosing channels, customers consciously evaluate different choices available to them (Tse and Yim, 2001). A channel's attractiveness depends on the value (benefits minus costs) it can offer to each customer, compared to other alternatives. Research has uncovered numerous customer-related factors affecting how customers use various channels and combinations of channels. These tend to fall into three broad categories:

1) Intrinsic customer attributes, including: i) attitudes towards technology (Black et al., 2002; Boyer and Frohlich, 2006; Dabholkar and Bagozzi, 2002); ii) demographic, socio-economic and lifestyle attributes (e.g., Ding et al., 2007; Schoenbachler and Gordon, 2002; Venkatesan et al., 2007); iii) past channel experience (when and how the customer has interacted in the past), including customer channel switching costs/inertia (Frambach et al., 2007; Gensler et al., 2007; Schoenbachler and Gordon, 2002); iv) ability to engage in self-service (customer efficiency, Xue et al, 2011); v) volume of service demand (Xue et al, 2011); and vi) channel access (Xue et al, 2011).
2) Customer preferences and goals in engaging in service activities, including: economic goals (pursuit of efficiency and utility); self-affirmation (the opportunity of customers to play out their subjectively perceived expertise); symbolic meaning (satisfaction that customers anticipate from the effort and attention they expend in shopping); socialization and experiential impact (customers' need to be a part of social milieus or of stimulating environments); and invocation of channel script or schema (the goal of maintaining regularity and familiarity) (Balasubramanian et al., 2005; Ding et al., 2007).
3) Situational factors: a wide variety of situational aspects can influence channel choice such as time pressure, degree of mobility, and geographical location (Monsuwé et al, 2004). That is, a given customer may make different channel choices to execute a given activity according to the situational aspects at the particular time of choice.

Several studies have shown that customers can be heterogeneous in their channel preferences (e.g., Boyer and Frohlich, 2006; Iqbal et al., 2003; Xue et al, 2007). Consequently, for a given activity, different customers may have different requirements for MC-service delivery and may value different channel attributes.

Evolution of customer channel preferences over time
Research suggests that the utilization of service channels can evolve over time. In the case of Internet-based channels, this evolution may lead to a greater use of these channels as more service interactions migrate from physical channels to the Web and as customers choose to use

Internet-based channels to conduct a greater volume of new service interactions with providers (Campbell and Frei, 2004). There are several reasons behind this phenomenon. First, as customers become more familiar with online technology, they are more likely to conduct different types of activities through Internet-based channels. This follows naturally from improvements in customers' technology readiness and in their trust in new technology and in service providers (Verhoef et al., 2009). Therefore, as customers become increasingly familiar with the Internet, they will rely more and more on channels based on this technology in order to carry out service activities for which this channel is perceived to be as particularly effective (Kumar and Venkatesan, 2007). Moreover, as customers choose to use Internet-based channels, they will be exposed to marketing efforts by service providers that will reinforce further use (Ansari et al., 2008). Furthermore, since customers will have greater opportunity to observe other peers' interaction with Internet technology over time, they will be more likely to imitate these interactions and engage in on-line service delivery in the long run (Forman et al, 2009). Finally, customers will increase their use of Internet-based channels over time because they will have greater access to the technology, made possible by investments in available broad-band infrastructure.

Research hypotheses
The literature review suggests that two main factors affect the pattern of direct channel use by customers at a given time: i) the fit between the characteristics of the service activities being performed and the customer channel preferences, based on the channel attributes and ii) the degree of customer heterogeneity. We put forward several hypotheses about the conditions supporting the convergence of customer preferences for one channel over another and the implementation of a single-channel strategy.

The hypotheses are based on the match between the relevant characteristics of service activities we introduced earlier (complexity, volume/frequency and importance) and different channel attributes (usefulness, efficiency and personal contact) identified by Patricio et al. (2008). These channel attributes correspond to dimensions of customer experience requirements which are associated with service activities. Usefulness comprises the clarity of information, completeness of operations, and the amount of available information. Efficiency comprises accessibility, ease of use, and speed of delivery. Personal contact comprises personalization, competence, and trustworthiness of employees. According to Patricio et al (2008), Internet-based channels are superior to phone-based channels in offering efficiency, but inferior in personal contact (the two types of channels are similar in respect to usefulness).

Therefore, consistent with these arguments, we formulate hypotheses involving two extreme categories of service activities for which one channel is expected to dominate the other:

H1: For low complexity, high frequency and low importance activities, Internet-based channels will be preferred over phone-based channels for most customers.
H2: For high complexity, low frequency and high importance activities, phone-based channels will be preferred over Internet-based channels for most customers.

Consistent with the literature review regarding the evolution of customer channel preferences over time, we put forward the following hypothesis:

H3: The degree of preference for Internet-based channels will increase over time for both types of activities.

Discussion
The empirical examination of these hypotheses will provide a better understanding of the type of activities customers perform through direct channels and how these evolve over time. Support for H1 and H2 would suggest that it is appropriate to employ single-channel strategies for the two categories of activities considered. That is, each direct channel (phone-based or Internet-based) would specialize in delivering specific types of activities. Offering these activities through multiple channels would not be necessarily better than doing so through a specialized channel. Implementation of such a strategy could be done by requiring customers to use a particular channel (by offering each activity in a single channel) or by encouraging customers to use the "right" channel (e.g., through marketing communications, price incentives, etc.). Thus, employing a single-channel or an MC delivery strategy for these activities would be a matter of strategic choice. Single-channel strategies could explore efficiency opportunities, while MC strategies could explore differentiation through an augmented channel experience.

   Lack of support for H1 and H2 could arise due to two situations:
i) Contrary to what the literature on activity-channel fit suggests, customers are highly heterogeneous in their channel preferences. For example, considering high complexity, low frequency and high importance activities, a sizable customer group may prefer Internet-based channels while another large group may prefer phone-based channels.
ii) Customers may not have clearly defined preferences for each type of activity, i.e., they value having channel choice, using the phone and the Internet at different times or under different circumstances for the same activity.

   Under these scenarios, an MC strategy would need to be employed and a single-channel strategy would not be adequate. That is, the use of a MC strategy for these activities would not be a matter of strategic choice, but a competitive necessity.
   Support for H3 would indicate that decisions regarding the allocation of service activities to direct channels should not be static and require frequent revisiting in light of evolving customer preferences regarding channel use (even if the customer base does not change much over time). In particular, service providers would need to make plans for a future strengthening in service delivery through Internet-based channels, as an increasingly relevant direct channel for service activities. Lack of support for H3 would indicate that customers' intrinsic channel preferences have stabilized and do not need to be considered in the long run.
   Overall, the empirical examination of these hypotheses will contribute to Operations Management knowledge concerning the design of MC service delivery systems (Roth and Menor, 2003), namely, the decisions about the activities to offer through direct channels and whether these should be offered using a single or a MC delivery strategy.

Future research
We are currently conducting an empirical study to test the proposed hypotheses. We collected data on over 200,000 customers who were active users of the direct channels of a nationwide MC

retail bank in Portugal. The bank employed branches (about 800) and phone- and Internet-based channels as its direct channels and had a generalist MC strategy, offering all activities across all channels, whenever possible. As a result, a wide range of activities were available to customers across the channels. Our single-industry focus enables us to control for relevant contextual variables, such as service type. The targeting of customers from a single service enables us to control for channel offer.

We focus on activities that were simultaneously available in the two direct channels (phone and Internet), organized in two categories:
1. Access to content: access to general information about i) products, services and stock markets; ii) personal assets/liabilities/transactions. [low complexity, high frequency and low importance activities]
2. Management of financial applications. Subscription, cancellation and modification of certificates of deposits, retirement products, loans, etc. [high complexity, low frequency and high importance activities]

To determine the degree of channel preference by customer, we collected data from the back office IT systems of the bank on the number of times that each customer performed each of the selected activities through the internet and phone channels during each year in the period 2000-2009.

To test H1 and H2, we first identify the extent to which each customer uses phone-based and Internet-based channels to perform the two categories of service activities we introduced above. We do so by estimating the percentage of total activities in each category performed by each customer through each of the two direct channels on an annual basis, in the year 2009. With these percentages, we can then estimate the patterns of channel use across customers for each category. For example, H1 would be supported if our data for 2009 showed a heavily skewed distribution of use across customers strongly favoring the Internet-based over the phone-based channel, e.g., 90% of customers carry out 100% of their activities through the Internet when accessing content. To test H3, we examine how, on average, customers' usage of the phone-based and the Internet-based channel has evolved over time on an annual basis for each type of activity, starting in the year 2000 and ending in their most recent state in 2009. This hypothesis would be supported if our data showed a progressive increase in the average use of the Internet channel over time by customers for both service categories.

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