Journal of Services Mar

Effect of interactive marketing channels on service customer acquisition

Journal:	*Journal of Services Marketing*
Manuscript ID	JSM-08-2019-0282.R5
Manuscript Type:	Article
Keywords:	CRM, Digital, Professional services, Relationship marketing

Effect of interactive marketing communications channels on service customer acquisition

Abstract

Purpose–The cost of customer acquisition is one of the largest expenses that service firms incur due to loss-generating quotes/proposals. This paper aims to connect interactive marketing communications channels with increased customer acquisition and non-interactive marketing communications channels with decreased customer acquisition by service firms.

Design/methodology/approach– Two field studies utilizing hazard models were used to assess the probability of acquiring a new customer after the prospect first contacts the firm. Multiple discrete hazard models were used to compare channels against each other.

Findings– Three interactive marketing communications channels (word-of-mouth, online review forum, search engine optimization) increased the rate of acquiring a customer over time. The author also compared non-interactive channels (billboard/ signage, direct mail), but the analysis did not reveal any significant impact on acquisition rate by the non-interactive marketing communications channels.

Practical implications – Firms can reduce their cost of acquisition by screening prospects through the marketing communications channel that brought the prospects to the firm. Prospects who arrive via interactive marketing communications channels have an increased probability of becoming a customer over time.

Originality/value–The present study illustrates why the cost of acquisition is so high in the service sector and takes the unique step of linking interactive marketing communications channels with higher customer-acquisition rates over time in a services context. Specifically, interactive marketing channels enable customers to find firms that offer the attributes that they seek, thereby increasing acquisition probabilities and decreasing acquisition costs.

Keywords - Marketing communications channels, Interactivity, Asymmetry, Professional services

Paper type - Research paper

1. Introduction

Conventional wisdom suggests that attracting more leads and generating more activity in the sales department will accelerate customer acquisition and ultimately enhance revenue and profit (Kotler *et al.*, 2006). However, many service firms incur a cost proportional to the number of customers who contact the firms. Providers of professional services (e.g. architects, security firms, contractors, and electricians) respond to customer inquiries with a proposal, each time incurring costs to develop this proposal with no guarantee that the customer will accept the proposal and ultimately generate revenue. The service provider thus faces a risk of excessive loss-generating proposals. As one consultant explains, "… an unqualified lead may cost [the company] days, months, and sometimes years of wasted effort" (Jordan, 2018). In the construction sector, for example, a failed proposal for a routine project can cost $3,000 to $10,000 (Buckshon, 2013). Other service firms in industries such as real estate or the financial sector risk incurring costs of marketing to consumers who will not purchase from them because they are not interested in the key selling propositions that the firm offers.

To minimize expenditures on consumers who will not purchase their services, firms must attract inquiries from potential customers (prospects) with a high likelihood of converting to paying customers. Prior work has indicated that attracting prospects likely to convert is possible if the goals of the consumer and the value proposition of the firm are aligned (Vroomen *et al.*, 2005). For example, prospects who seek a high-quality option are more likely to seek out and purchase from firms that offer higher service levels (Vroomen *et al.*, 2005). If a service provider can identify prospects who seek to maximize the firm's key selling propositions, it can minimize expenditures on consumers who are not going to purchase from the firm. The challenge, though, is that prospects still approach the firm via traditional marketing communications channels, with some marketing communications channels providing vastly more information to prospects than others (de Haan *et al.*, 2016; Srinivasan *et al.*, 2015). Traditional advertising may create awareness, but it may not answer questions about a service provider as well as word-of-mouth can (Beltramini, 1989). The purpose of this paper is to explore which marketing communications channels are most likely to bring prospects to the firm who are likely to become customers.

Substantial research in the relationship marketing and customer acquisition domains has espoused the importance of marketing communications channels in driving prospect quality (Chan *et al.*, 2011; Datta *et al.*, 2015; Gupta *et al.*, 2003; Reinartz *et al.*, 2005; Thomas, 2001; Verhoef and Donkers, 2005; Villanueva *et al.*, 2008). The consistent finding that certain acquisition channels bring higher-value customers to the firm over other channels provides the basis for this study (Reinartz, Thomas, and Kumar, 2006; Verhoef and Donkers, 2005). The author builds on this foundation by arguing that *some marketing communications channels allow prospects to interact with the firm and customize the information they receive, thereby enhancing the ability to convert prospects in a timely manner and limiting loss-generating proposals*. This research contributes to the literature on marketing communications channels and customer acquisition by comparing interactive and vs non-interactive channels as well as consumer interaction with the firm (see Table 1 for a summary).

The paper proceeds as follows. First, the author draws upon the theory of information asymmetry to argue that poor-quality prospects increase sales costs. Secondly, market communications channels are delineated based on the level of interactivity enabled by the channel. Channels with greater interactivity are more apt to allow prospects to reconcile their wants with the seller's key attributes. Hypothesized effects on conversion rates are tested with a hazard modeling approach using data from a firm that performs home improvement services and a real estate brokerage. The two studies are intended to expand the generalizability of these findings by testing the arguments advanced in this paper within two different service contexts that differ on their emphasis on quality. Following the empirical analyses, the author discusses the results and present theoretical and managerial implications pertaining to customer acquisition.

---- Table 1 about here ----

2. Customer Acquisition and Information Asymmetry

Literature in customer relationship management links successful acquisition and retention to greater financial valuations (Schmitt, Skiera, and Van den Butte, 2011; Schulze, Skiera, and Wiesel, 2012; Verhoef and Donkers, 2005). The strength of a firm's customer relationship management (CRM) lies in its ability to identify and acquire new customers and retain these customers to extract value over the customer's lifetime (Kumar and Reinartz, 2016; Lewis, 2006; Lewis, 2005). Customers are considered assets that provide varying degrees of value to the firm. When customers are acquired through discounts, they may not prove to be long-term revenue-producing assets (Lewis, 2006), which puts greater emphasis on firms to acquire customers who seek more than intermittent sales promotions (Lewis, 2006, 2005). However, at the time of acquisition, the customer has thus far created a *negative* net value for the firm due to the cost of reaching this customer from a pool of prospects; the greater the cost of acquisition, the longer the time until the customer provides break-even value for the firm. The heart of any CRM strategy is cost-effective acquisition, which sets the stage for the firm's retention efforts.

2.1 Acquisition Costs

Cost-effective customer acquisition is particularly challenging given that firms spend considerably more money to acquire a customer than to retain that customer. For example, in a study of professional memberships, Thomas (2001) estimated that a professional services organization spent $26.94 to acquire a customer versus $2.15 per annum to retain a customer. The high cost of acquisition is largely attributed to the expense of reaching prospects who the firm is ultimately unable to convert. For example, a firm that pursues traditional advertising, such as signage or television ads, spends the same amount per prospect even though only a small percentage of those prospects will be converted into customers. A service provider that spends $10,000 on a billboard advertisement and acquires 50 new customers as a result of that advertisement incurs an acquisition cost of $200 per customer, with much of this figure incurred from reaching audiences that have no need of the firm's services.

The aforementioned situation illustrates an application of the theory of information asymmetry. The acquisition cost that the firm incurs is fueled by the asymmetry that exists between firms and consumers in the marketplace (Kirmani and Rao, 2000). Traditionally, the seller often has more information on the seller's quality than the buyer, causing prices to drop because buyers demand a discount for the increased risk of purchasing a low-quality service (Akerlof, 1970). However, when buyers have more information about the buyers' intentions than the sellers do, the prices can rise. Thus, unlike the asymmetry that exists when the seller has more information on their quality than the consumer does and prices decrease as a result, when consumers have more information regarding their intentions, prices increase. In the service context, this is novel and more pronounced because time is perishable, and each time the firm pursues a prospect, it reduces the amount of time they could be using performing paid work. To illustrate, if a customer wants to remodel their home and obtains three estimates from firms, one of whom the customer already prefers, then the remaining two firms that do not receive the contract incur the cost of providing the estimate but no revenue from the customer. This condition is *consumer asymmetry*, where sellers lack the knowledge of which prospects will provide more revenue than the costs the firm incurs to acquire the customers. When sellers cannot differentiate between those who provide them with profits and those who increase their costs, they incur increased costs due to resources spent on prospects who cost the firm more than the revenue they provide (Thomas, 2001). The cost of prospects would have to be offset by the revenue from the few who purchased the firm's services. To reduce the cost of acquisition, the firm must improve its targeting ability and focus its resources on those prospects who are most likely to provide revenue.

This paper advances the discussion of acquisition costs with a focused investigation of different marketing communication channels, leading to acquisition in the service sector: those that are more interactive and inclusive and those that are more passive and exclusive. To the extent that one of these approaches is more (or less) effective in quickly converting prospects into paying customers, it may be viewed as contributing to a more (or less) cost-effective acquisition strategy. When discussing quality providers in the professional services sector, firms emphasizing quality will charge more than firms that compete primarily on price.

2.2 Marketing Communications Channels

Before prospects purchase from the firm, they move through a funnel where they are exposed to multiple marketing communications channels, including both more and less interactive types of communication (Srinivasan *et al.*, 2015). However, more interactive channels are unique in their relationship to the message's surrounding content (Stephen and Galak, 2012). *Content-integrated* messaging is incorporated into the medium's editorial content (Russell and Belch, 2005). For example, with search engine optimization, relevant sponsored listings (the message) appear alongside results of the prospect's web search (the surrounding content). Content-*separated* messaging is independent of the medium's content; banner advertising at the top of a webpage, for example, need not relate to the contents of the page. Content-integrated messaging has been found to be more persuasive because it provides richer and more relevant information (de Haan *et al.*, 2016). This is important in the professional services sector because the purchase decision is preceded immediately by the proposal stage. At this stage, the prospect may be more informed through content-integrated messaging and potentially has more knowledge of the firm and its services. Alternatively, the prospect may be relying more on content-separated messaging, which puts a greater onus on the proposal to provide information to the prospect.

3. Customer Acquisition via Marketing Communication Channels

Marketing communication channels traditionally involved reaching out to customers with mass media and encouraging them to respond to the appeal (Luo and Donthu, 2006). Marketing communication that is initiated by the firm and pushed onto prospects with minimal opportunity for interaction is very much alive; in 2015, marketers in the United States spent $11.9 billion on direct mail and $8.1 billion on billboard and outdoor advertising (Morea, 2016; Palmer, 2016). However, this expenditure represented an increase of only 0.1% and 0.01%, respectively, from the year prior (Morea 2016; Palmer 2016). Total spending on these passive, non-interactive forms of advertising is expected to trend *downward*s, largely because of increased expenditures on more interactive forms, such as search engine optimization (SEO) or viral advertising

(Stivaros, 2016; Verhoef and Donkers, 2005). Passive channels such as television advertising may lead to greater awareness and drive prospects to other channels, but prior work has demonstrated that they lack the ability to evoke a cognitive assessment or conative action (e.g., purchase) on the part of prospects (Srinivasan *et al.*, 2015). Traditional channels do not allow for two-way communication and thus do not allow prospects to customize the message to suit their specific needs (Villanueva *et al.*, 2008). In contrast, more interactive forms such as search engine optimization, word-of-mouth, or a firm's website allow prospects to gather information that they seek, which moves them closer to purchase (Florenthal and Shoham, 2010; Villanueva *et al.*, 2008; Vroomen *et al.*, 2005).

The nature of emerging channels (such as digital communications channels) allows for prospects to customize the information that they receive so that they can assess the message on the attributes of the firm in which they are most interested (Chan *et al.*, 2011; Lagrosen, 2005). The preceding example illustrates a key delineating feature of marketing communications channels: their level of *interactivity*. Interactivity is defined as "an expression of the intent that, in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions" (Rafaeli, 1988, p. 111). Though there is much debate over what constitutes interactivity (see Kiousis, 2002), there is general agreement that it is captured in two factors that distinguish interactive communication from passive communication: 1) the ability to receive and respond to messages (Heeter, 1989; Rafaeli and Sudweeks, 1997; Rafaeli, 1988; Shannon and Weaver, 1949), and 2) the level of control that the receiver has in crafting the message (Downes and McMillan, 2000; Hoffman and Novak, 1996). This distinction matters in the discussion of alleviating asymmetry via marketing communication channels because it allows for the customer to obtain the most pertinent information for the service provider. In the classical sense of interactivity, the two-way communication happens in sequence and simultaneously between individuals, like a conversation (Shannon, 1948). In marketing communication, this would be similar to word-of-mouth communication. However, increasingly digital channels are also seen as facilitating interactive communication (Sundar *et al*., 1998). These are digital channels that allow prospects to engage in sequential communication that leads to a customizable message for the prospect (Hoffman and Novak, 1996; Sims 1995). For example, a prospect may initiate a search for a firm online; they can choose which hyperlink they follow and gather information that pertains to their needs (Kiousis, 2002). The prospect is communicating in the digital realm what they communicate in the physical realm. Searching for a plumber via an online search and then narrowing the search based on which ones can perform a certain job is similar to the communication sequence of asking a colleague if they know any plumbers and which can do a particular job well. This ties directly into the central argument that prospects who go through particular marketing communication channels may have a higher likelihood of becoming an actual customer. The engagement that interactive channels provide allows prospects to find information most relevant to them. This would help customers find the right firm for them because the channels help customers to screen firms before contacting firms they are interested in. A prospect who is concerned with quality can read reviews for the firm on an interactive online forum and reach out to only those firms that were perceived as having the greatest quality. A prospect who prioritizes responsiveness in the service provider may use digital channels (e.g. review forums) to screen out any that do not respond quickly and only contact those that are most likely to reply quickly. From the service provider's perspective, the firm may use the marketing communication channel to reach prospects who have determined the key selling attributes of the firm and have reached out because the firm is more in line with what the prospect seeks than other firms in the same service sector.

The argument is displayed in Figure 1. Interactive marketing communications channels allow prospects to determine the key selling attributes of the service provider above what non-interactive channels (such as direct mail and signage) are able to convey. Non-interactive channels such as television, radio, and signage typically reach a large group of prospects with a consistent message (Bezjian-Avery *et al*., 1998) and are generally used to create awareness within a broad group of prospects (Trusov *et al.*, 2009). Acquiring a broad group of prospects can be detrimental to those in the service sector because, for some, it creates costs in the form of proposals; for others, it involves making an investment in time and effort before the prospect is converted. The challenge to the firm is that it lacks information, ex ante, on the likelihood that a prospect can be converted into a customer.

---- Figure 1 about here ----

Passive, non-interactive channels often employ a shotgun approach by reaching as many prospects as possible and, as a result, they reach many prospects who are not interested in the firm's offerings. These prospects may not be able to ascertain whether the firm excels at the attributes in which the prospect is most interested.

To alleviate the problem of directing resources to prospects who are unlikely to make a purchase, interactive marketing communication channels serve as screening filters. As noted, these channels inherently support content-integrated messaging, with the prospect seeking out the medium for the message and receiving more relevant information (de Haan *et al.*, 2016). Interactive methods, such as word-of-mouth, review forums, and search engine optimization, are initiated by the prospect who also controls the flow of information (Florenthal and Shoham, 2010). A customer begins with a search of what the customer is looking for in a firm and then conducts her investigation based on those criteria. The firm's message may well be seeded via search engine optimization, word-of-mouth marketing programs, and social media campaigns, but it is discovered on the prospect's terms and based on the prospect's preferences. A passive marketing communications channel is unable to customize the message for each individual prospect, which then leaves a gap between the information the prospect seeks and what is communicated through the channel.

The aforementioned rationale demonstrates that when the prospect is able to interact with the message, it can mitigate the asymmetry problem faced by the prospect. Compared to messages received from less interactive channels, prospects gain more relevant information. Therefore, such channels enable prospects to discern which service providers align more effectively with their needs and which do not.

To illustrate, a prospect who is considering having their car serviced may study reviews online and choose the two businesses with the highest ratings while disregarding others as lower quality. A consumer who visits a service garage after seeing a billboard advertisement has done nothing to assess quality of the garage and may have to shop around further to reduce the probability of taking their car to a low-quality garage. This example demonstrates a competitive advantage of interactive marketing communication channels for firms to compete on selected attributes. By focusing on drawing in prospects who have already begun to alleviate their asymmetry problem (differentiating good sellers from bad), the firm's own asymmetry problem (differentiating good prospects from bad) is mitigated.

Hypothesis:

H_1: The acquisition rate of prospects exposed to a firm's marketing communications in interactive channels will be higher than for those exposed to communications in non-interactive channels.

4. Methodology

The analysis is divided between two studies. In Study 1, the context is the home improvement marketplace. In Study 2, the context is a residential real estate brokerage. In Study 1, the author examines the likelihood of customer acquisition through different marketing communications channels. Study 2 provides a different service context where the service operator relies heavily on an interactive channel (referrals). Both contexts represent different aspects of the service sector; however, in the home improvement context, service quality is identifiable and measurable, thus it can be argued that concerns over quality may cause consumers to opt for certain marketing communication channels over others. Study 2 added a context (real estate) where quality was not as easily discernible.

4.1 Study 1

The home improvement sector represents an industry where service providers vary greatly both in the quality of the services provided and in the overall service experience. U.S. prospects spent over $325 billion dollars on home improvement services in 2015 alone (Bender, 2016). This sector is seen as an indicator of economic prosperity and employs over nine million people in the United States (United Census Bureau, 2011). The term *home improvement* is quite inclusive; services vary from basic cosmetic upgrades like replacing a floor to larger maintenance issues like roof repair. The study focuses on cosmetic improvements—interior remodeling and painting—that consumers make to their homes. Focusing on cosmetic improvements allows the reduction of the potential impact of urgency in the consumer's decision. The consumer must be careful to identify a high-quality firm or risk paying too much for poor-quality work. Some firms may even identify a problem that does not exist or a solution that is unnecessary (Pierce, 2015). The onus is on the homeowner, who lacks expert knowledge, to evaluate proposals and choose the one that is most appropriate for the work that they want.

4.2 Data

The sample was drawn from the customers of a multimillion-dollar, privately held, home improvement firm, serving three states and headquartered in a large metropolitan center in the eastern United States. The firm offers interior services only (e.g., painting, repairs, cabinetry, flooring) to residential homes and is generally perceived as providing superior service. This firm consistently receives top marks from online review forums such as Angie's List and Yelp, where it has an average rating of five stars, and an A+ rating from the Better Business Bureau. The firm's main advantage in the marketplace is that it competes on quality and not on price, describing its competitive advantage as a "total quality experience" wherein it seeks to provide high-quality service and high-quality work throughout its dealings with each customer.

Each time the firm receives an inquiry, it arranges for one of its employees to visit the location to assess the work to be done and then prepare an estimate for the customer's approval. If the estimate is not approved, the firm does not receive any compensation to offset the cost of completing the estimate. This situation exemplifies the need to screen prospects because if the firm were to expend an equivalent amount of resources on each prospect, then it would overspend on consumers who will never buy and underspend on consumers who have the highest likelihood of becoming a customer.

From 2010 to 2013, the firm gave out over 1,500 estimates to prospects in its market area. The author evaluated the efficacy of different marketing communication channels by assessing the acquisition rates of various means of contact that led the prospect to approach the firm. Prospects approached the firm as a result of a variety of forms of contact, some of which had been paid for by the firm and others for which the firm did not directly pay. In terms of paid forms of contact, the firm utilized direct mail (non-interactive), signage (non-interactive), and Google search optimization (interactive). The direct mail campaign involved a flyer promoting the firm, which was sent out weekly to potential customers within a bundle of coupons for other businesses. The signage for the firm appeared on the firm's fleet of vehicles and on the lawns of customers who were having their homes renovated. The Google search engine optimization placed a link to the company's website as a sponsored result when prospects entered certain keywords for area home improvement firms.

The primary forms of unpaid advertising contact included word-of-mouth and review forums. Although some firms employed marketing programs to incentivize word-of-mouth and customer reviews, this firm did not. In this setting, both of these forms of contact originated from prior customers who were not compensated to share their experiences. Therefore, this study may provide a conservative estimate of the customer acquisition efficacy of these forms of contact since the firm had done nothing to seed its own message in these channels. The author identified some less common methods of customer contact such as trade shows or the sponsorship of charitable endeavors, but these were omitted from the analysis due to their low rates of incidence. The author provides a breakdown of the number of estimates per marketing method source in Table 2.

---- Table 2 about here ----

Because the analysis focuses on customer acquisition, it only included first-time customers. The firm recorded the date the estimate was given and the date the prospect accepts the estimate, if at all. If the prospect had not accepted the estimate within a year, the file was closed, and the firm assumed that the prospect chose a competitor. Each time the firm prepared an estimate, it recorded the type of work to be done, the estimated cost, the marketing channel, and the location of the potential customer. The referral source was provided in response to the prospect's answer to the following question at the time an estimate is given: "How did you hear about us?" Prospects could state multiple sources, but few did so. To avoid misattribution, only those estimates where the prospect listed one source were used. The author acknowledges that the prospect may have encountered multiple marketing communication channels before approaching the firm (e.g., direct mail followed by a review website). The inability to observe such sequences is a limitation of this study. However, prior work has demonstrated that more interactive channels such as search engine optimization and word-of-mouth are utilized closer to the purchase stage (Srinivasan *et al.*, 2015). The prospect is asked about the channel immediately preceding the proposal—it stands to reason that customers selecting non-interactive media were unlikely to be exposed to the more interactive channels earlier.

4.3 Hazard Model

To test the argument that inclusive, interactive marketing communication channels increase the rate of acquiring a customer while exclusive, less interactive channels decrease it, the author employed a hazard model. The hazard model is most appropriate to the analysis because it presents an empirical test of the theory that was advanced earlier pertaining to prospects taking time (while costing the firm money) to become customers. Many of the prospects in the sample did not become customers (with the firm absorbing the cost of acquisition efforts), and these prospects entered and exited the period of analysis at different times; a survival analysis accounts for these factors.

The author used an accelerated hazard model with an exponential distribution to assess the probability over time of acquiring a new customer after giving an estimate. Hypothesis 1 posited that more interactive channels can increase the probability of turning a prospect into a customer over time. To demonstrate this conversion, the author had to relax the assumption that the differences resulting from all channels are the same across time. The exponential distribution had the best fit; the scale result was only one and the plotted hazard did not reveal a significant number of variations with respect to time. To ensure the appropriateness of the exponential distribution, the log likelihood of the exponential distribution model with a Weibull distribution model was compared and found that the former produced a better fit (Exponential, -2LL = 16,610.62 versus Weibull distribution, -2LL = 17103.76).

Each of the firm's marketing communication channels identified earlier was included within the model (see Table 2 for abbreviations). The range of prices for estimates contained a great deal of variation. At the low end was an estimate of $300 for the painting of one room to a high estimate of $69,275 for renovating multiple rooms within the home. Because the size of the project might be correlated with both contact method and conversion likelihood, the author controlled for the price of each project by taking the natural logarithm of each estimate (CA; Contract Amount). The dependent variable in the model was the likelihood of customer acquisition over time H(t), which represents the probability at different time points that the prospect will become a customer. The betas represent the impact that the channel has on the likelihood of customer acquisition. The accelerated hazard model is as follows:

$$1)\quad H(t) = 1 - (e^{\beta_0(-1)(t)+\beta_1(WOM)+\beta_2(\mathrm{Re})+\beta_3(SE)+\beta_4(Sg)+\beta_5(DM)+\beta_6(CA)+e_i})$$

The first contact with the customer in the model—time zero—was recorded as the date the estimate was given. If the prospect accepted the estimate, then the event has occurred; if the prospect did not accept the estimate during the three years of the investigation, they were right-censored. If a person arrived at the firm via a personal referral, then they were 67% more likely to become a customer at time (t) in months than if they arrived at the firm through a channel that was not a personal referral. The full results from Study 1 (home improvement firm) are displayed in Table 3. In Table 3, the parameter estimates are listed that indicate the impact that each marketing communication channel has on the probability of acquiring a prospect over time. It should be noted that the author tested for heterogeneity in the effects with respect to project size by estimating interaction effects of the Contract Amount with each marketing channel. The author did not find any significant interactions, thus providing evidence of the homogeneity of the main effects.

---- Table 3 about here ----

The author also investigated whether there were significant differences in terms of acquisition probabilities between the different forms of more interactive channels. Using multiple discrete hazard models, the author compared each channel against the others. Equation 2 represents the general equation for the analysis:

$$(2)\qquad h_{it} = \Pr\left(T_i = t \,\middle|\, T_i \geq t, x_i\right]$$

$$x_i = (WOM_i, RE_i, SE_i)$$

The results of the discrete hazard models are displayed in Table 4. A graphical illustration of the probability of acquisition over time for interactive marketing communication channels compared to non-interactive marketing communication channels is contained within Figure 2.

---- Table 4 about here ----

---- Figure 2 about here ----

4.4 Findings

The primary argument, captured in H1, was supported: it was found that all three interactive marketing communication channels increased the rate of acquiring a customer over time. The results of the discrete hazard models revealed further differences between the channels. Word-of-mouth marketing increased the probability of acquisition above what was provided by the referral forum or search engine optimization. In a comparison of probabilities over time between the review forum and the search engine optimization, the author found significant differences in favor of search engine optimization. Customers who approached the firm from a search engine were more likely to become a customer of the firm over time. The author did not compare the passive, less interactive channels because they had already been revealed as insignificant predictors of customer acquisition in the earlier analysis.

4.5 Study 2

Study 1 examined customer acquisition in a sector where perceived quality fluctuated significantly. As discussed earlier, contractors are rated publicly by consumers, and potential customers are likely to differentiate between poor quality and good quality firms through interactive channels that allow them to extract information to form perceived quality of the contractors. However, the limitation of the first study is that one could argue that interactive channels are best suited for sectors where quality varies widely. For many service providers, perceived signals of quality show little variation. For example, prior work has found that in the sharing economy, most of the hosts who offer accommodations for others receive a rating of five out of five stars, there is very little deviation beyond four to five stars (Zervas *et al.*, 2015). To move past the argument that the earlier findings are applicable only to those high-quality service providers who stand out in a market with significant variation in service quality, the author expanded the research to the real estate sector. Unlike other sectors of the service economy, realtors don't have many identifiable signals of quality. Realtors can be rated on different review forums, but the sheer volume of realtors with high ratings minimizes ratings as a signal of quality. According to the National Association of Realtors (NAR), in 2018 there were estimated to be approximately two million active real estate licenses in the United States (NAR 2018). Real estate services represent a service that has a high degree of fit between the clients and providers. In 2018, it is estimated that residential buyers in the United States spent over $80 billion on purchasing residential properties (O'Connor, 2019).

4.6 Data

The sample for Study 2 was drawn from a small real estate brokerage that operated from 2013 to 2018 in the suburbs of a major metropolitan area on the east coast of the United States. In 2018, due to declining commissions and increased competition from larger brokerages, the firm was absorbed by a larger brokerage. At the time the firm was absorbed, it had less than 50 agents and prided itself on being a small shop that could give their clients individual attention. The downside is that the agents did not have access to as many resources or as large a network as other brokerages. Agents for this brokerage worked on 100% commission; they could earn commissions (ranging from 2 – 3% of the sales price) as either the buyer's agent or seller's agent. They could also earn commission on the final sale by referring either the seller or buyer to another agent (typically 0.1 to 0.5% of the sales price). Once the sale was complete, the agent would pay the broker 0.5% of the commission that they acquired.

Due to the potential for commissions, the firm kept track of all referrals, even if the relationship did not materialize. Agents were encouraged to keep track of their leads so that if any of the prospects reached out to the firm, the broker would know who the assigning agent was. The firm also allowed agents to purchase into an automatic postcard mailer that would be sent to certain zip codes each quarter. The postcards would promote the individual agent but would also provide information to potential customers such as guidance on how to turn off the water supply in the winter and how to weed one's lawn in the spring.

The majority of agents did not enter their leads into the database. Only eleven agents participated, and of those eleven agents, only eight did so regularly. Over the course of 2016-2018, there were 308 leads. A total of 165 of these prospects were converted into customers while 143 of these leads were considered dead (after six months) or were right censored. It should be noted that customer acquisition in this case does not equate to the agent earning commission from the client. If a client did not buy or sell a home within a six-month time period (when the agency relationship expires), no commission was earned, but the client was still acquired. The author was not able to ascertain whether the agents earned commissions from all the clients whom they acquired. The agents achieved prospects from four channels: referrals, networking, postcard mailers, and open houses. A full description of each marketing channel, along with the number of prospects and conversions per channel, is provided in Table 5.

---- Table 5 about here ----

Referrals, networking, and open houses were classified as interactive methods because the prospect was able to initiate contact with the sales agent, and they were able to customize their interaction. Postcards were the lone non-interactive marketing channel that drew prospects to the respective sales agents.

4.7 Hazard Model

Similar to Study 1, the author employed an accelerated hazard model to test the arguments advanced in Hypothesis 1. Prospects contacted the agents at varying times, and some did not become customers by the cut-off point; this format lent itself to a survival analysis. The appropriateness of the exponential distribution was assessed by comparing the log likelihood of the exponential distribution model with a Weibull distribution model and revealed that the exponential distribution model was a better fit (Exponential, -2LL = 1,583.62 versus Weibull distribution, -2LL = 1602.17).The authorused all four marketing channels in the accelerated hazard model; the model is as follows:

$$(3)\quad H(t) = 1 - (e^{\beta_0(-1)(t)+\beta_1(\mathrm{Re}\,ferral)+\beta_2(Networking)+\beta_3(OpenHouse)+\beta_4(Post-Card)+e_i})$$

The first contact with the prospect was recorded as time zero. For the sole, non-interactive method--postcards—this was the first time a prospect contacted the agent after receiving the postcard. The prospect was recorded as having converted to a customer (conversion was recorded as an event) when the prospect signed an exclusive right to represent contract with the agent. The results demonstrate that at time t (month), those who approached the firm from a referral were approximately 87% more likely to become a client than those who approached the firm by another channel. Table 6 lists the parameter estimates for Study 2.

---- Table 6 about here ----

4.8 Findings

The one non-interactive marketing communication channel did not have a significant impact on customer acquisition (0.374, p= 0.603). The only marketing channel that was found to have a significant impact on customer acquisition was referral ((-2.040, p< 0.001). The referrer acts to provide a word-of-mouth endorsement of the agent to the potential customer. Similar to word-of-mouth from Study 1, potential customers can ask the referrer questions, thereby interacting with the communicator in order to ascertain the fit between the strengths of the agent and their needs as a client. Also, similar to Study 1, this interactive channel increased the rate of customer acquisition. Neither the networking nor open houses had a significant impact on the probability of customer acquisition. One reason why these interactive channels did not have a positive impact on customer acquisition may have been the interest of consumers when they first encountered the particular channel. Recall from the earlier conceptualization of interactive methods that prospects seek out the medium for the message (de Haan *et al.*, 2016). For both networking and open houses, the customer may not have sought out the channel, but had it thrust upon them. A customer may have visited an open house or met the agent through a networking event, but the activity was what caused the customers to meet the agent. The customer may not have interacted with the agent for the purpose of acquiring real estate representation. Though there may have been a level of engagement with the agent (Rafaeli and Sudweeks, 1997), which qualifies the channel as an interactive channel, the customer may not have sought the agent and thus was an unlikely client before going through the interactive channel. Despite the result not being statistically significant, it is an important finding because it alludes to a boundary condition on the power of interactive marketing communication channels to acquire customers as demonstrated by Study 1. When the channel is pushed onto consumers, it may lose its ability to increase customer acquisition.

5. Discussion

Interactive marketing communication channels allow the prospect to direct their information search and ascertain the key selling propositions of the service provider in the professional services sector. These channels allow prospects to identify firms that most align with their goals, thereby increasing the likelihood of acquisition. In the home improvement sector (Study 1), interactive channels may favor high quality firms, but in sectors where perceived quality is not as evident (Study 2), the interactive channels allow consumers to assess perceived fit. It should be noted that interactivity may not have a significant impact on consumer acquisition if the channel is pushed onto consumers compared to when it is initiated by the consumer.

Practitioners place a heavy focus on customer acquisition, with lead generation and turning customers into assets frequently cited as marketers' top priorities (Marketing Science Institute, 2018). This focus is justified given that acquisition is often the largest cost that a firm incurs during a customer relationship, and it precedes retention (Thomas, 2001). By connecting marketing channels to customer acquisition, this paper contributes valuable knowledge to this important domain.

This paper revealed that interactive marketing communication channels increase customer acquisition likelihood over time while less interactive channels do not. When customers can interact with the channel, they can better ascertain the attributes of the firm, while channels that are pushed onto prospects hinder the ability to assess the seller ahead of time. The findings support the former statement but not the latter.

The evidence is consistent with the primary argument that interactivity increases customer acquisition (thereby reducing acquisition costs). Channels that leverage prospects' own self-guided search and self-initiated contact drive prospects towards the firm that has already done part of the work to reduce the information asymmetry issues between the seller and the prospect. The prospect has a greater awareness of the quality of each prospective firm a customer contacts, while the firm's problem of differentiating profitable from unprofitable prospects is mitigated. Due to this reduction in asymmetry, prospective customers who have had contact with the firm via interactive channels have a greater acquisition rate.

6. Limitations and Future Research

One of the biggest challenges when examining the effect of a method of marketing communication channels on a particular outcome is the interaction and accumulated effects of multiple methods. For example, a prospect may view a billboard for the focal home improvement company enough times to become aware of the firm and ask their neighbor if they have used the firm before. It is possible that the prospect contacts the firm after exposure to passive marketing communications channels. Study 1 relied on consumer self-reporting to determine which channel affected the probability of customer acquisition. The author does not make the argument that each marketing channel operates in a vacuum.

This study accounted for the method that was most salient to consumers when asked how they chose the firm. The process from awareness to action is complex and susceptible to influence at various stages (Payne *et al.*, 1991; LeDoux, 1998). While passive channels such as signage and direct mail may create awareness, more interactive channels largely move beyond the awareness stage because the communication is initiated by the consumer. The study did not find that non-interactive channels had a significant impact on customer acquisition, and this may be a sign that their purpose is not conversion but rather awareness. Thus, it is possible that less interactive channels strengthen interactive channels. The author invites future research to explore channels at various stages of the consumer decision-making process.

7. Conclusion

The cost of acquiring a new customer is often several times greater than the cost of retaining an existing customer in a services context. One of the factors that inflates the cost of customer acquisition is that service firms often spend money on prospective customers who will never purchase from the firm. Such expenditures include incurring expenses generating quotes and proposals or selling to a customer who might not generate revenue. To reduce the cost of customer acquisition, the firm needs a method to screen customers and attach a higher probability of acquisition to certain customers than others.

The study investigated whether service firms would be able to screen prospects based on the marketing communication channels used to reach the firm. Interactive channels such as word-of-mouth and third-party review websites are more engaging and interactive than their less interactive alternatives (such as billboard advertising or direct mail). The author found that prospects were more likely to become customers if they arrived at the firm via more interactive channels. The findings reveal that firms can leverage their service quality through interactive channels to reduce acquisition costs while increasing their optimal acquisition rate.

References

Akerlof, G.A. (1970), “The market for “lemons” Quality uncertainty and the market mechanism," *The Quarterly Journal of Economics*, pp. 488-500.

Bender, J. (2016), “Statistics and facts about Home Improvement in the U.S”, available at: https://www.statista.com/topics/1732/home-improvement/ (accessed 7 July 2019).

Beltramini, R.F., (1989). “Professional services referrals: a model of information acquisition”, *Journal of Services Marketing*, Vol. 3 No. 1, pp.35-43.

Bezjian-Avery, A., Calder, B., and Iacobucci, D. (1998), “New media interactive advertising vs. traditional advertising,” *Journal of Advertising Research*, Vol. 38, pp. 23-32.

Buckson, M. (2013), “How Much Does It Really Cost to Respond to an RFP?”, available at: https://constructionmarketingideas.com/how-much-does-it-really-cost-to-respond-to-an-rfp/ (accessed 1 August 2018).

Chan, T.Y., Wu, C. and Xie, Y. (2011), “Measuring the lifetime value of customers acquired from Google search advertising,” *Marketing Science*, Vol. 30 No. 5, pp. 837-850.

Chen, Y., Liu, Y. and Zhang, J. (2012), “When do third-party product reviews affect firm value and what can firms do? The case of media critics and professional movie reviews,” *Journal of Marketing*, Vol. 76 No. 2, pp. 116-34.

Datta, H., Foubert, B. and Van Heerde, H.J. (2015), “The Challenge of Retaining Customers Acquired with Free Trials,” *Journal of Marketing Research*, Vol. 52 Issue. April, pp. 217-234.

De Haan, E., Wiesel, T. and Pauwels, K. (2016), “The effectiveness of different forms of online advertising for purchase conversion in a multiple-channel attribution framework,” *International Journal of Research in Marketing*, Vol. 33 No. 1, pp. 491-507.

Downes, E.J. and McMillan, S.J. (2000), "Defining Interactivity: A Qualitative Identification of Key Dimensions," *New Media and Society*, Vol. 2 No. 2, pp. 157-79.

Florenthal, B. and Shoham, A. (2010), "Four-mode channel interactivity concept and channel preferences," *Journal of Services Marketing,* Vol. 24 No. 1, pp. 29-41.

Gupta, S., Lehman, D.R. and Stuart, J.A. (2003), "Valuing customers," *Journal of Marketing Research*, Vol. 41 No. 1, pp. 7-18.

Heeter, C. (2000), "Interactivity in the context of designed experiences," *Journal of Interactive Advertising*, Vol. 1 No. 1, pp.3-14.

Hoffman, D.L. and Novak, T.P. (1996), "Marketing in Hypermedia Environments: Conceptual Foundations," *Journal of Marketing*, Vol. 60 No. 3, pp. 50–68.

Jordan, J. (2018), "It's a Trap! Why Your RFP Response Rarely Wins," , available at https://blog.hubspot.com/sales/rfp-response 1/7 (accessed 1 August 2018)

Kirmani, A. and Rao, A.R. (2000), "No Pain, No Gain: A Critical Review of the Literature on Signaling Unobservable Product Quality," *Journal of Marketing Research*, Vol. 64 Issue. April, pp. 66-79.

Kiousis, S. (2002), "Interactivity: a concept explanation," *New Media & Society*, Vol. 4 No. 3, pp. 355-383.

Kotler, P., Rackham, N. and Krishnaswamy, S. (2006), "Ending the war between sales and marketing," *Harvard Business Review*, Vol. 84 No. 7/8, pp. 68-82.

Kumar, V., J. Peterson, A. and Leone, R.P. (2010), "Driving Profitability by Encouraging Customer Referrals: Who,When, and How," *Journal of Marketing*, Vol. 74 Issue. September, pp. 1-17.

——— and Reinartz, W. (2016), “Creating Enduring Customer Value,” *Journal of Marketing*, Vol. 80 No. November, pp. 36-68.

Lagrosen, S. (2005), “Effects of the internet on the marketing communication of service companies”, *Journal of Services Marketing*, Vol. 19 No. 2, pp. 63-9.

LeDoux, J. (1998), *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*, Simon and Schuster.

Lewis, M. (2005), “Incorporating Strategic Customer Behavior into Customer Valuation,” *Journal of Marketing,* Vol. 69 Issue. October, pp. 230-38.

Lewis, M. (2006), “Customer Acquisition Promotions and Customer Asset Value,” *Journal of Marketing Research*, Vol.43 Issue. May, pp. 195-203.

Libai, B., Muller, E. and Peres, R. (2013), “Decomposing the value of word-of-mouth seeding programs: Acceleration versus expansion,” *Journal of marketing research*, Vol. 50 Issue 2, pp.161-176.

Luo, X. and Donthu, N. (2006), "Marketing's credibility: a longitudinal investigation of marketing communication productivity and shareholder value." *Journal of Marketing,* Vol. 70 No. 4, pp. 70-91.

Marketing Science Institute (2018), “Research Priorities 2018-2020” Cambridge, Mass.: Marketing Science Institute.

Morea, S. (2016), IBISWorld Industry Report 54186 – Direct Mail Advertising in the US. Retrieved from http://www.ibisworld.com

National Association of Realtors (NAR), Quick Real Estate Statistics, May 11, 2018.

Obermiller, C. and Spangenberg, E.R. (1998), “Development of a scale to measure consumer skepticism toward advertising,” *Journal of Consumer Psychology*, Vol. 7 No. 2, pp. 159-86.

O'Connor, C. (2019), IBISWorld Industry Report 53121 – Real Estate Sales & Brokerage in the US.

Retrieved from http://www.ibisworld.comPalmer, T. (2016), IBISWorld Industry Report 54185 – Billboard & Outdoor Advertising in the US. Retrieved from http://www.ibisworld.com

Payne, J., Bettman, J.R. and Johnson, E. (1991), "Consumer Decision Making," *Handbook of Consumer Behaviour*, pp. 50-84.

Pierce, J. "Why suing a home contractor may not be as beneficial as you think", *The Washington Post*, November 9, 2015. (Accessed: 18 November 2015)

Rafaeli, S. and Sudweeks, F. (1997). "Networked interactivity," *Journal of computer-mediated communication*, Vol. 2 Issue. 4, JCMC243.

Rafaeli, S. (1988), "From new media to communication." *Sage annual review of communication research: Advancing communication science*, Vol. 16, pp. 110-134.

Reinartz, W., Thomas, J.S. and Kumar, V. (2005), "Balancing Acquisition and Retention Resources to Maximize Customer Profitability," *Journal of Marketing*, Vol. 69 Issue. January, pp. 63-79.

Russell, C.A. and Belch, M. (2005), "A managerial investigation into the product placement industry," *Journal of Advertising Research*, Vol. 45 No. 1, pp. 73-92.

Schmitt, P., Skierra, B. and Van den Butte, C. (2011), "Referral programs and customer value," *Journal of Marketing*, Vol. 75 Issue. January, pp. 46-59.

Schulze, C., Skiera, B. and Wiesel, T. (2012), "Linking Customer and Financial Metrics to Shareholder Value: The Leverage Effect in Customer-Based Valuation," *Journal of Marketing*, Vol. 76 Issue. March, pp. 17-32.

Shannon, C. E. (1948), “A mathematical theory of communication,” *Bell system technical journal*, Vol. 27 No. 3, pp. 379-423.

Shields, R. (2019), “U.S. Digital Ad Spend Will Surpass Offline in 2019,” Adweek, February 20, 2019, https://www.adweek.com/programmatic/u-s-digital-ad-spend-will-surpass-offline-in-2019/, accessed: October 14, 2019

Sims, R. (1997), “Interactivity: A forgotten art?” *Computers in human behavior*, Vol. 13 No. 2, pp. 157-80.

Srinivasan, S., Rutz, O.J. and Pauwels, K. (2015), “Paths to and off purchase: quantifying the impact of traditional marketing and online consumer activity,” *Journal of Services Marketing*, Vol. 44 No. 4, pp. 440-53.

Steffes, E.M., Murthi, B.P.S. and Rao, R.C. (2011), “Why are some modes of acquisition more profitable? A study of the credit card industry,” *Journal of Financial Services Marketing*, Vol. 16 Issue. 2, pp.90-100.

Stephen, A.T. and Galak, J. (2012), “The effects of traditional and social earned media on sales: A study of a microlending marketplace,” *Journal of Marketing Research*, Vol. 49 Issue. 5, pp. 624-639.

Stivaros, C. (2016), IBISWorld Industry Report 54183 – Media Buying Agencies in the US. Retrieved from http://www.ibisworld.com

Sundar, S.S., Hesser, K.M., Kalyanaraman, S., and Brown, J. (1998), “The Effect of Interactivity on Political Persuasion,” paper presented at the Sociology and Social Psychology section at the 21st General Assembly and Scientific Conference of the International Association for Media and Communication Research, Glasgow, July.

Thomas, J.S. (2001), “A Methodology for Linking Customer Acquisition to Customer Retention,” *Journal of Marketing Research*, Vol. 38 Issue. May, pp. 262-68.

Trusov, M., Bucklin, R.E. and Pauwels, K. (2009), “Effects of Word-of-Mouth Versus Traditional Marketing: Findings from an Internet Social Networking Site,” *Journal of Marketing*, Vol. 73 No. September, pp. 90-102.

Verhoef, P.C. and Donkers, V. (2005), “The effect of acquisition channels on customer loyalty and cross-buying,” *Journal of Interactive Marketing*, Vol. 19 No. 2, pp. 31-43.

Verhoef, P.C., Stephen, A.T., Kannan, P.K., Luo, X., Abhishek, V., Andrews, M., Bart, Y., Hannes, D., Fong, N., Hoffman, D., Hu, M.M., Novak, T., Rand, W. and Zhang, Y. (2017), “Consumer connectivity in a complex, technology-enabled, and mobile-oriented world with smart products,” *Journal of Interactive Marketing*, Vol. 40 Issue. November, pp. 1-8.

Villanueva, J., Yoo, S., and Hanssens, D. M. (2008). “The impact of marketing-induced versus word-of-mouth customer acquisition on customer equity growth,” *Journal of Marketing Research*, Vol. 45 No. 1, pp. 48-59.

Vroomen, B., Donkers, B., Verhoef, P.C. and Franses, P.H. (2005), “Selecting Profitable Customers for Complex Services on the Internet,” *Journal of Service Research*, Vol. 8 No. 1, pp. 37-47.Zervas, G., Proserpio, D. and Byers, J. (2015), “A first look at online reputation on Airbnb, where every stay is above average. *Where Every Stay is Above Average,” Social Science Research Network, (January 28, 2015)*.

Figure 1
Model of service quality and marketing communications channels

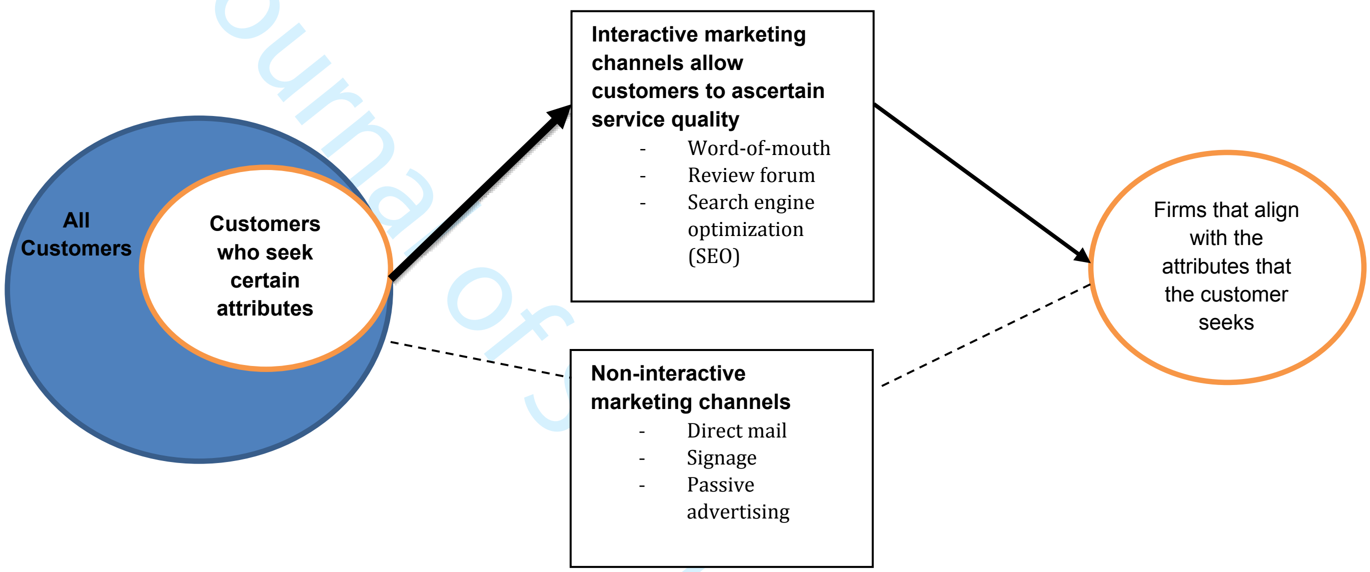

Figure 2
Comparison of probabilities between interactive and non-interactive marketing communications channels

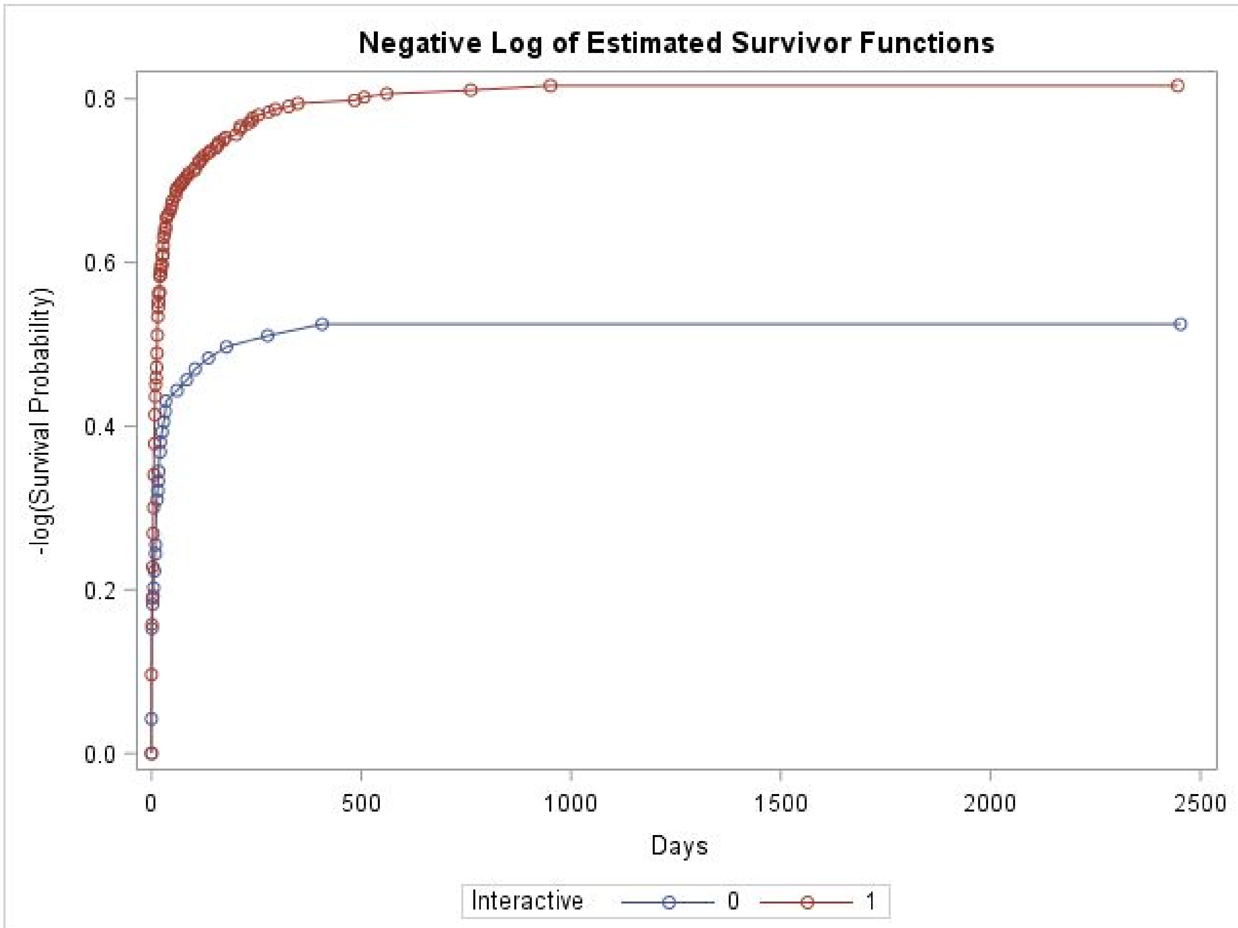

Table 1

Outline of contribution relative to other major work

		Variables of Interest			
Study	Channels	Comparison of acquisition based on interactive vs. non-interactive channels	Consumer Interaction with Firm	Summary of Key Findings	Industry
Chan, Wu, and Xie (2011)	Google Search/ Web Traffic		✓	Customers acquired through Google search advertising are more valuable than customers acquired through other digital channels.	Biomedical and Chemical
Datta, Foubert, and Van Heerde (2015)	Direct Mail, E-Mail		✓	Customer value of free-trial customers is lower than than of regular customer but free-trial customers are more responsive to marketing communications.	Digital Media
Kumar, Peterson, and Leone (2010)	Word of Mouth		✓	A new four-step approach to compute customer referral value (CRV) is created. The method is used to target the most promising customers.	Financial Services, Retailing

Libai, Muller, and Peres (2013)	Customer-to-Customer	✓	The authors demonstrate how acceleration and expansion combine to generate value in a word-of-mouth seeding program for a new product.	Higher education, Technology, Entertainment, Retail, and Services
Reinartz, Thomas, and Kumar (2005)	Telephone, Face-to-Face, Web, E-mail	✓	Insights are presented pertaining to how much to spend to balance acquisition vs. retention. The relationship between acquisition expenditure and retention expenditure is demonstrated.	B-to-B High-Tech Manufacturing
Scmitt, Skierra, and Van den Bulte (2011)	Word-of-Mouth	✓	Referred customers have a higher contribution margin, higher retention rate, and are more valuable in the short and long run.	Financial Services
Steffes, Murthi, and Rao (2011)	Internet, Direct Mail, Direct Sell, Telesales	✓	Internet and and direct mail efforts generate more profitable customers than telemarketing and direct selling.	Financial Services
Thomas (2001)	Direct Mail	✓	Customer acquisition is more costly than customer retention.	Membership of Trade Association
Trusov, Bucklin, and Pauwels (2009)	Word-of-Mouth	✓	Word-of-mouth referrals have substantially longer carryover in a social networking site than	Social networking

				traditional marketing actions.	
Verhoef and Donkers (2005)	TV, Radio, Print Advertising, Direct Mail, Outbound Telephone, In-House Magazine, Website, Word-of-Mouth		✓	Direct-mail acquisition as a channel performs poorly on retention and cross-selling.	Financial Services
Villanueva, Yoo, and Hanssens (2008)	Word-of-Mouth, online ad banner, TV, radio, magazine, newspaper advertisement, email links, direct mails	✓		Marketing-induced customers add more short-term value, but word-of-mouth customers add nearly as much long-term value to the firm.	Internet firm that provided free web hosting
This Study	**Word-of-Mouth, Review Forum, Search Engine Optimization, Direct Mail**	✓	✓	**Interactive channels such as word-of-mouth, review forum, and search engine optimization increased customer acquisition over time.**	**Home Improvement, Real Estate**

Table 2
Marketing communications channels for Study 1 (home improvement firm)

Referral Source (abbreviation)	Explanation	Mean in days* (SD)	Events	Censored
Personal Referral (WOM)[a]	Referral from a personal acquaintance (professional or otherwise)	452.81 (396.45)	308	219
Review Forum (Re)[a]	The review forum that we drew upon was Angie's List. Angie's list is a subscription based forum that rates service providers and allows members to leave feedback on specific firms.	787.44 (609.61)	145	149
Search Engine Optimization (SE)[a]	The firm pays Google to maximize its presence when consumers in the geographic region conduct searches for home improvement firms. The firm also attempts to create as much traffic to their website so as to optimize their presence when customers search for firms that contain certain keywords.	563.10 (560.10)	56	85
Direct Mail (DM)	The firm uses a direct mail campaign that provides potential customers with a brochure promoting their services and their service ratings.	1364.11 (1136.19)	69	107
Billboard/ Signage (Sg)	The firm pays for bus station advertising on various bus stops throughout the metro area. The advertising lists contact information and contains pictures of the types of work that the firm does.	1321.03 (1101.50)	15	41
[a] Inclusive / Interactive Marketing Channels		Total	593	601

*Days from first contact with the firm to time of proposal acceptance.

Table 3
Parameter estimates for Study 1 (home improvement firm)

Parameter	Estimate	Std Error	χ^2	Pr (χ^2)	Increase in Probability at Time (1)
Intercept	6.555	.268	596.58	<.001	
Personal Referral[a]	-1.097	.099	120.85	<.001	67%
Review Forum[a]	-.507	.183	7.64	<.01	40%
Search Engine Optimization[a]	-.639	.167	14.56	<.001	47%
Direct Mail	.316	.242	1.23	.267	
Billboard/Signage	.247	.222	1.71	.192	
Log Contract Amount	.401	.075	28.42	<.001	-49%
Scale	1				
Lagrange multiplier, $\chi^2 = 2134.66$, $p < .001$					

[a] Inclusive / Interactive Communications Channels

Table 4
Comparison of marketing channels

Comparison	Model Fit Global Test Statistic: Wald	Test of Equality: Wilcoxon	Parameter Estimate
Comparison between inclusive / interactive channels and exclusive / less interactive channels	Chi-Square = 93.671, $p < .001$	Chi-Square = 8.852, $p < .01$	-1.539, $p < .05$
Comparison between word-of-mouth and third-party review	Chi-Square = 74.193 $p < .001$	Chi-Square = 3.681 $p < .06$	-1.628, $p < .10$
Comparison between word-of-mouth and search engine optimization	Chi-Square = 92.334 $p < .001$	Chi-Square = 15.667 $p < .001$	-1.362, $p < .001$
Comparison between third party reviews and search engine optimization	Chi-Square = 37.997 $p < .001$	Chi-Square = 21.035 $p < .001$	1.393, $p < .001$

Table 5
Marketing communications channels for Study 2 (real estate brokerage)

Referral Source (abbreviation)	Explanation	Mean in days (SD)	Events	Censored
Referral	Referral from a previous customer or affiliate partner such as contractors	13.04 (21.41)	53	3
Networking	The realtors attended different events and volunteered with multiple organizations such as amateur sports teams and parent teacher associations. By doing so they developed networks.	35.56 (49.18)	22	10
Open houses	Realtors often host open houses not only for their clients but for other agents as well. The purpose is to meet potential buyers and accumulate contacts for those that are not represented by another agent.	68.14 (53.87)	22	34
Post-Cards	A form of unsolicited direct mail where the realtor provides their contact information as well as information that the homeowner can use such as how to turn off the water to the outside of the house.	56.54 (50.87)	68	96
[a] Inclusive / Interactive Marketing Channels		Total	165	143

Table 6
Parameter estimates for Study 2 (real estate brokerage)

Parameter	Estimate	Std Error	χ^2	Pr (χ^2)	Increase in Probability at Time (1)
Intercept	4.682	.707	43.84	<.001	
Referral[a]	-2.040	.721	8.02	<.01	87%
Networking[a]	-.736	.739	.99	.319	
Open House[a]	-.569	.742	.59	.443	
Post-Cards	.374	.719	.27	.603	
Scale	1				
Lagrange multiplier, $\chi^2 = 87.303$, $p < .001$					

[a] Inclusive / Interactive Communications Channels