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B2B content marketing for professional services: In-person versus digital contacts

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ABSTRACT

We study whether marketing can have a new role, one that is better aligned with the sales force, by adapting content marketing (CM) in B2B professional services organizations. CM activities can be in-person events such as conferences, which involve personal contacts with clients, or digital, such as webinars (i.e., digital events) or posting firm-generated content on branded websites (i.e., digital content). Fitting random-effects negative binomial regression models with four years of panel data from a large, international, consulting service provider, we show that the number of sales leads and won opportunities from its key accounts are positively affected by the frequency of an account's employees attending digital events and consuming digital content, but not in-person events. Moreover, we find that CM affects sales leads for both low- and high-level account employees. These findings suggest that CM can be effective in bringing sales leads and won opportunities to B2B professional service providers and can play a complementary role to the existing sales force.

1. Introduction

The tension between marketing and sales has been a persistent issue in B2B companies. In their classic article describing this conflict, Kotler, Rackham, and Krishnaswamy (2006) describe the "war between sales and marketing" in these terms: "… they're separate functions within an organization, and when they do work together, they don't always get along. When sales are disappointing, Marketing [sic] blames the sales force for its poor execution…. The sales team, in turn, claims that Marketing sets prices too high and uses too much of the budget, which instead should go to hiring more sales people, or paying the sales reps higher commissions. More broadly, sales departments tend to believe that marketers are out of touch with what's really going on with customers (p. 3)". As this assessment reflects, a key factor in this tension is that sales typically emphasizes personal selling whereas marketing stresses media communications. To the extent that sales sees value in marketing, it is in providing collateral support for in-person sales contacts.

Research confirms this gap between sales and marketing. The two have different goals (Dewsnap & Jobber, 2000; Strahle, Spiro, & Acito, 1996) and even different perspectives or "windows on the world" (Beverland, Steel, & Dapiran, 2006; Cespedes, 1996; Homburg & Jensen, 2007; Homburg, Jensen, & Krohmer, 2008). A key feature of this gap can be summarized as follows. Sales plays a critical role in B2B firms by maintaining close contact with customers via personal selling. To the extent that marketing is viewed as detached from the selling process, and spending money on alternatives such as advertising, or otherwise seeming to employ practices perceived as more appropriate to B2C companies, conflict is inevitable. Recently, however, content marketing has emerged in B2B companies as an approach that has the potential to be more aligned with the emphasis of sales on customer contacts.

B2B content marketing (B2B CM) can be defined as: "creating, distributing and sharing relevant, compelling and timely content to

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engage customers at the appropriate point in their buying consideration processes, such that it encourages them to convert to a business building outcome (Holliman & Rowley, 2014, p.285).” Content, the key element of B2B CM, is composed of information through which B2B marketers aim to help customers and consequently build customer relationships (Holliman & Rowley, 2014). In practice, B2B marketers can deliver content in digital environments through activities on branded websites such as posting white papers and hosting webcasts (Järvinen & Taiminen, 2016) or in the physical environment through in-person activities such as conferences. A survey of 1102 B2B marketers in North America in 2016 by the Content Marketing Institute and MarketingProfs (Pulizzi & Handley, 2016) found that 89% of the respondents now use CM, and 88% consider it an important component of their marketing program. On average, the respondents' organizations spend around 29% of their total marketing budget (excluding staff) on CM, and 39% expect an increase in their CM spending over the next year.

B2B CM differs from other approaches to marketing. Unlike advertising-centric marketing, it does not seek to persuade customers of the specific benefits of the product sold. Advertising or paid media works by placing ads in media to which target customers are attracted because of a medium's content (e.g., an ad in a trade magazine/vine). The medium provides exposure and attention to the ad, and the ad's message is designed to convince the customer of the value of the product or service. Even if the message is standalone, as with a product brochure or web page, it is still an ad. With B2B CM, valued content that is not directly about the product is provided to the customer. The customer comes into contact with the content on owned or sponsored media, which is valued in its own right.

While the use of CM is becoming widespread in the B2B context, its use raises an important and unresolved question. Is it better to offer content via in-person contacts or might it be more effective to use more impersonal, digital media contacts? Are both effective, or is one more effective than the other? And can effectiveness be demonstrated using clear outcome criteria appropriate to the B2B context such as sales leads produced? This research seeks to answer these questions and to discuss the implications for better aligning sales and marketing.

2. Background and hypotheses

In Fig. 1 we illustrate how CM is implemented in B2B environments and discusses some characteristics of common CM activities. Since we focus on B2B professional service providers in this study, hereafter we use the term *service provider* to indicate a B2B firm that provides professional services and implements CM. However, we believe Fig. 1 also applies to B2B firms in sectors other than professional services. In addition, we use the term *accounts* to indicate firms that are the service provider's existing or potential customers and *account employees* to indicate individuals employed by the accounts.

Content is usually provided for free by the service provider, who invites account employees to engage with the content. Typically such content is not around the service provider's offerings[2] (i.e., neither product-based messages nor call-to-action messages) but is designed by the service provider to help account employees and consequently to build relationships with them. For example, the service provider can share industry news along with information to help account employees identify opportunities and challenges in their own industries. In fact, both B2B marketing practitioners and researchers emphasize that CM requires a business culture change from “selling” to “helping” (Holliman & Rowley, 2014; Jefferson & Tanton, 2013). In particular, B2B practitioners state that “great content adds value by helping the audience to do something better, or by solving a specific problem or pain they have in their professional life (Holliman & Rowley, 2014, p. 284).”

Offering content to customers can thus be thought of as a customer engagement initiative, an opportunity for the customer to engage with the service provider via the content. Customer engagement[3] can be defined as “the intensity of an individual's participation in and connection with an organization's offerings and/or organizational activities, which either the customer or the organization initiate (Vivek, Beatty, & Morgan, 2012, p.133).” When an account employee engages with CM activities, he or she may derive intrinsic or extrinsic value (Holbrook, 2006; Malthouse, Calder, & Tamhane, 2007; Mitchell, Schlegelmilch, & Mone, 2016) from the content. Account employees might derive intrinsic, hedonic value from a CM activity simply because they enjoy it. Moreover, their desire for knowledge may be satisfied by the content, from which the account employees derive epistemic value (Sheth, Newman, & Gross, 1991). Likewise, account employees may be said to derive functional value (Sheth et al., 1991), economic value (Holbrook, 2006), or learning value (Mitchell et al., 2016) from the content because it provides relevant information on the problem they are solving and/or helps them enhance their efficiency at work. The more valued the content, the more engaged account employees are, and the more likely they are to trust the service provider and share positive word of mouth about the service provider within the account (Vivek et al., 2012). Ultimately the account may be more likely to purchase the service providers' offerings because the buying center is more likely to have account employees who trust the service provider and are affected by positive word of mouth for the service provider.

B2B CM activities may also increase the degree to which relational norms exist (Bonner & Calantone, 2005; Dwyer, Schurr, & Oh, 1987; Heide & John, 1992; Noordewier, John, & Nevin, 1990), especially in the relationships between the service provider and its existing customers. In particular, when account employees engage more with CM activities, they may be more likely to perceive the existence of the norms of information exchange or assistance (Bonner & Calantone, 2005), because CM activities provide information beyond a pre-specified contract and help account employees in idea generation or problem analysis. The stronger these relational norms are, the more likely that, compared with its competitors, the service provider can gain the account’ attention and obtain more purchases from the account (Bonner & Calantone, 2005).

Thus, with B2B CM the service provider hopes to affect the buying center and purchase decision process. The service provider may not know whether any particular account employee on its contact list is involved in any particular purchase decision. However, some account employees will at times be involved in purchase decisions or affect colleagues who are related to the purchase process. Therefore, by engaging account employees through CM activities, the service provider hopes to elicit more sales opportunities from that account. Therefore, we hypothesize that a B2B service provider obtains more sales opportunities from accounts that engage more with its CM activities. In particular, we propose:

H1a. A B2B service provider obtain more sales opportunities from client accounts that engage more with its digital CM activities.

H1b. A B2B service provider obtain more sales opportunities from client accounts that engage more with its in-person CM activities.

In the B2B context, some researchers discuss the conceptual, qualitative aspects of engagement (Kumar et al., 2010; Pansari & Kumar, 2017; Vivek et al., 2012). A few others empirically probe the impact of engagement on firm performance (Beckers, van Doorn, & Verhoef, 2017; Gill, Sridhar, & Grewal, 2017; Kumar & Pansari, 2016). This study is different from their work in the following ways: (1) we focus on

[2] We acknowledge that many B2B brands' website content is still focused on company, product or services (Holliman & Rowley, 2014), and we consider those brands are marketing in a way different from CM discussed in this study.

[3] Hereafter we use engagement to indicate customer engagement for simplicity.

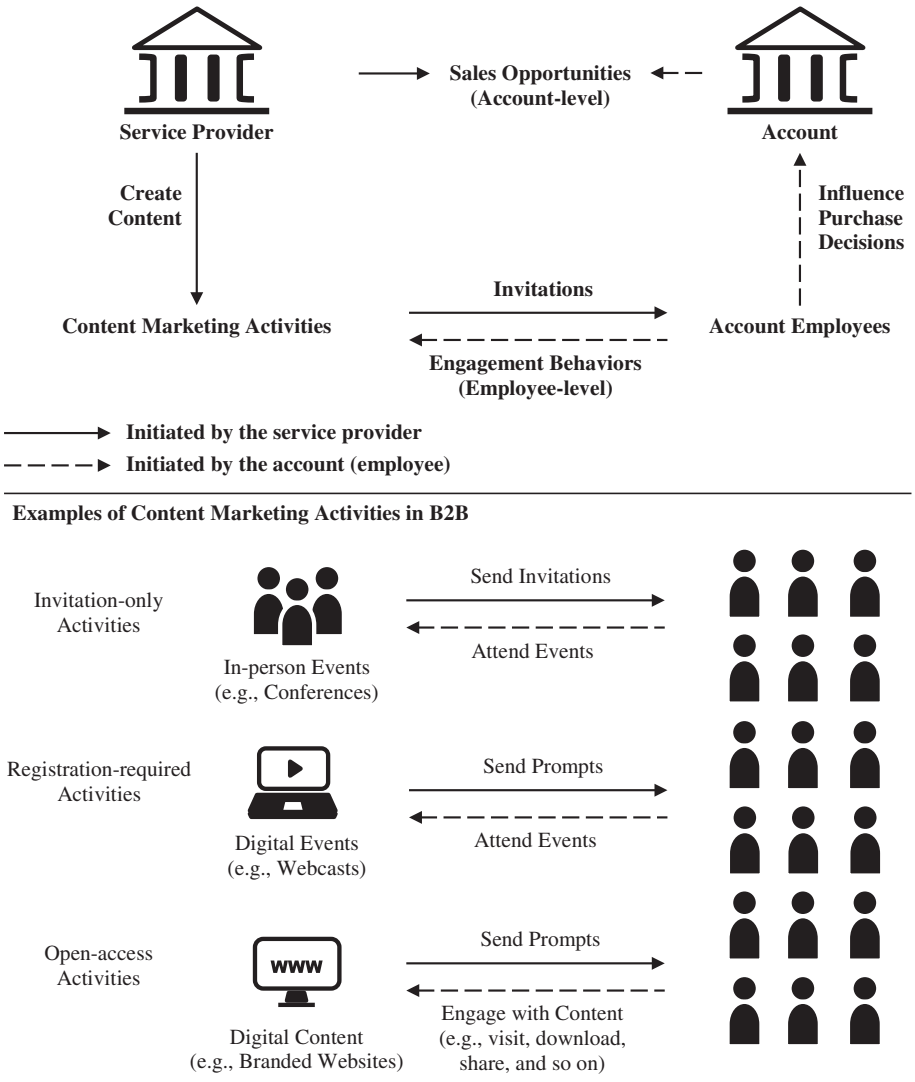

Fig. 1. Engagement with content marketing activities in the B2B Context.
Note: We consider the moderating effect of job titles (i.e., the dotted line) an empirical question and explore it in the empirical analysis.

engagement with CM activities; (2) instead of using surveys to gauge engagement (Kumar & Pansari, 2016) or collecting data solely on the announcement of engagement initiatives (Beckers et al., 2017), we observe the time of each CM initiative and whether or when each account engages with each activity; and (3) we observe each sales opportunity from each account, including its initiation (defined as a sales lead[4]) and outcome (i.e., a won opportunity or not), while most studies in the literature use the revenue or abnormal returns to the B2B marketer.

Therefore, we empirically focus on CM engagement behaviors (Van Doorn et al., 2010) and count the times each account employee attends in-person and/or digital CM events or the times employees from an account's IP addresses consume (including visit, download, and share) digital content on the service provider's branded websites. We aggregate engagement behaviors over employees in the same account to form a measure of account-level engagement. More details regarding our measures will be discussed in the empirical analysis section.

2.1. The relative effectiveness of in-person versus digital B2B CM

It is possible to entertain two alternative hypotheses about CM in the B2B context. From a traditional sales perspective, emphasizing the importance of personal selling, one would expect that CM activities relying on in-person initiatives (in-person events) will be more effective than digital ones. Such events offer more opportunities for interaction and relationship building with customers. Plus, since they are social as well as business events, this should facilitate interpersonal trust. Therefore, we hypothesize:

H2a. Engagement with in-person CM activities leads to more sales opportunities for B2B service providers than engagement with digital CM activities does.

However, it is also reasonable that digital events (such as webinars) and/or digital content (such as posts on branded websites) might be more effective. This is because digital events are more focused on the content itself. An in-person event may have many distractions, including networking with other participants. Moreover, in-person events represent more of an investment in time from the customer's side, making the customers own contribution as salient as that of the service provider. Hence, we can also form a competing hypothesis against H2a as follows:

H2b. Engagement with digital CM activities leads to more sales opportunities for B2B service providers than engagement with in-person CM activities does.

In this research we regarded the issue of the relative effectiveness of in-person versus digital B2B CM as an empirical question to be settled

[4] We follow Smith et al. (2006) and define the first stage of a sales opportunity as a sales lead.

by the data. It could also be, of course, that both in-person and digital B2B CM are equally effective. Or even that presumed effectiveness is not supported at all.

The in-person versus digital comparison is important beyond the economic issue of which leads to the better result. In-person CM shares an obvious *compatibility* with the sales view of the world. One could even think of an in-person event as a sales contact. A result favoring in-person CM activities would thus suggest a clear path for marketing to become more aligned with sales. But a result favoring digital content activities would suggest a different path, one in which marketing could become more *complementary* to sales. And, in fact, research by Homburg and Jensen (2007) has found that firm performance can increase if, despite their differences, sales and marketing take different but complementary perspectives, pointing to the potential for unrealized synergy between the two. Digital CM, despite being more different from the traditional sales perspective than in-person CM, could provide a way for marketing to be different in a complimentary way. Accordingly, each of the alternative hypotheses implies a different path for using B2B CM more effectively and thinking about how this emerging approach to marketing could best improve the alignment of sales and marketing.

We test our alternative hypotheses with a big dataset from a leading, multinational firm providing consulting services, which belong to the category of professional services (Pemer, Werr, & Bianchi, 2014). We examine the effects of this service provider's in-person and digital CM initiatives across a large and heterogeneous sample of buyers. The research thus employs a single-seller customer-level design. The dataset covers 2122 in-person and digital CM events as well as activities (e.g., posts) on the service provider's two branded websites during the fiscal years 2013–2016. It also records the participation of 160,448 employees from 784 key accounts in content engagement initiatives. We use random-effects negative binomial regression models to examine these B2B CM effects on the number of sales leads (i.e., the first stage of a sales opportunity, Smith, Gopalakrishna, & Chatterjee, 2006) and won opportunities (i.e., the last stage of a sales opportunity) from the account. Furthermore, since the job title of each account employee is available, we compare the effects on account's employees with high job titles to other employees. To the best of our knowledge, this study is the first test the effectiveness of B2B CM on sales-based performance in B2B markets in this way.

3. Empirical analysis

3.1. Data

A leading, multinational consulting service provider sponsors the empirical dataset, containing 1203 digital events and 919 in-person events hosted by the service provider during the fiscal years 2013–2016. A digital event can be a five-to-eight minute, on-demand, audiovisual presentation on a current issue-based topic or a 60-to-90 min, live webcast featuring practical knowledge from the service provider's specialists. An in-person event can be a seminar, conference, workshop, or roundtable originated and executed by the service provider. Both are touch points for the service provider to disseminate content, which is created by a team of more than 100 employees of this service provider. They identify content topics both internally by communicating with different teams within the service provider and externally by surveying key accounts. According to the service provider, content topics do not correspond to the types of services it provides, eliminating the concern that the content involves product-based messages or call-to-action messages. We cannot provide details of the content topics or CM activities because of confidentiality agreements. As shown in Fig. 1, digital events offered by the service provider are registration-required activities, whereas in-person events are invitation-only activities. The service provider shared a sample consisting of 160,448 employees from 784 key accounts that it may invite to attend those CM activities. According to the service provider, these key accounts include the most valuable clients. The service provider sends invitations and prompts through emails and tracks whether each invited account employee attends each event. The account employees' job titles and the accounts' firmographics (i.e., industries and geographic regions, which are encrypted by the firm) are also available.

Other than the aforementioned events, the service provider also maintains two branded websites publishing research results, commentary, as well as industry, regulatory, or technical updates, possibly with infographics and/or videos. When the service provider posts a piece of new content on its websites, it also sends email prompts to inform account employees. But anyone can visit the websites and access the content without any prompt or registration. Other than visiting the websites and reading or listening to the content, visitors can also download content, click icons on the websites to share it on their own social media platforms or forward it to others via emails. Because of the unrestricted nature of the websites, the service provider can only observe a visitor's internal protocol (IP) address but cannot recognize who the visitor is. However, the service provider can identify the owner of an IP address and thus can identify access from each key account. Overall, there were 3,359,320 website accesses from the 784 key accounts' IP addresses during the fiscal years 2013–2016.

Finally, the service provider shares with us the starting date of each stage of the 49,847 sales opportunities that are associated with the 784 key accounts during fiscal years 2013–2016. The first stage of an opportunity could either be initiated by the service provider, which identifies or qualifies the opportunity, or by the account, which contacts the service provider and/or requests a proposal. The final stage of an opportunity starts when the service provider wins, loses, or abandons the opportunity. The service provider also shares the information when each account made its first transaction.

3.2. Variables

3.2.1. Dependent variables

In this study, we rely on the number of sales opportunities associated with an account as a proxy for the sales from an account. Specifically, we consider both sales leads and won opportunities. In the B2B literature, sales leads have been considered the outcome of the marketing efforts, from which the responsibility of winning the leads shifts to the sales force (Smith et al., 2006). At the same time, won opportunities are closer to realized sales revenues from an account. In this study, we use both measures to test the effect of engagement with CM activities. That is, our dependent variables are (1) the number of sales leads: the number of sales opportunities initiated in a fiscal year that are associated with an account and (2) the number of won opportunities: the number of sales opportunities that are associated with an account and won by the service provider in a fiscal year. We use annual data to address the research question for the following reasons: (1) the sales cycle in B2B markets is longer and involves multiple stages, (2) the success of CM requires long-term investments, and we suspect the effect of engagement with CM activities can only be observed in the long run; and (3) an account may not frequently need professional services.

3.2.2. Independent variables

Our main independent variables are engagements with different types of CM activities. In line with Van Doorn et al. (2010), we focus on the engagement behaviors exhibited by each account. To test the effectiveness of in-person and digital CM activities developed by the service provider (i.e., in-person events, digital events, and digital content), we create three variables to capture the engagement with each type of CM activities. Regarding the engagement with in-person events, we first operationalize the intensity of an account employee's participation in the service provider's in-person events by counting the times he or she attends in-person events hosted by the service provider in a fiscal year. We then sum up the engagement of employees to form

account-level engagement with in-person events. Similarly, we measure the engagement with digital events by counting the times an account employee attends digital events hosted by the service provider in a fiscal year and then summing employee-level engagement.

Account employees may also consume content on the service provider's branded websites. The service provider records website accesses from each account by different types of behaviors, such as visiting, downloading and sharing. These account-level behavioral variables are highly correlated. Hence, we assume an equal weight for each behavior and count the total accesses from an account in a fiscal year to measure the engagement with posts on the service provider's websites.

3.2.3. Control variables

To isolate the effect of engagement with CM activities, we control for variables that may also affect the number of sales leads or won opportunities from an account. First, we consider observed account heterogeneities, including accounts' industries, geographic locations, and relationship lengths with the service provider. We suspect that accounts in different industries and/or different regions might have needs for different consulting services from the service provider at different frequencies. Therefore, the numbers of sales leads or won opportunities from accounts in different industries and/or regions may vary. Empirically, our data include key accounts in eight (encrypted) industries and four (encrypted) geographic areas, and we use dummy variables as main effects to control for their potential effects.

Relationship length is the length of time that the relationship between the service supplier and an account has existed (Bonner & Calantone, 2005; Palmatier, 2008; Palmatier, Dant, Grewal, & Evans, 2006; Stanko, Bonner, & Calantone, 2007). It has been shown that relationship length is positively associated with customer's commitment, trust, satisfaction in the relationship and the quality of the relationship (Palmatier et al., 2006), eventually leading to the account's purchase behavior favorable to the service provider (Bonner & Calantone, 2005; Palmatier et al., 2006) and higher value of the account to the service provider (Palmatier, 2008). Operationally, relationship length is how long an account has bought the service provider's offerings.

We also control for the unobserved account heterogeneities by including account random effects in the model. Unobserved account heterogeneities such as the size or budget of an account may affect the number of sales leads from the account. In addition, if a key account was served by the same key account manager from the service provider during the fiscal years 2013–2016, then the random effects also control for the impact of key account managers on the number of sales leads or won opportunities. Finally, the long-term economic trend may also affect the number of sales leads or won opportunities across accounts. For example, an economic boom might drive accounts to buy more services. To control for the possible impact of the economic trend, we include dummy variables indicating each fiscal year in our empirical analysis. Descriptive statistics and correlations between variables are summarized in Table 1.

3.3. Model

For our empirical analysis, we use a random-effects negative binomial regression model. A negative binomial regression model is suitable to deal with count data such as the number of sales leads or won opportunities from an account per fiscal year. In addition, it relaxes the assumed equality between the conditional mean and the conditional variance of the Poisson regression model, which is a special case of the negative binomial model. Considering the nature of our panel data, we adopt random effects to capture the unobserved, idiosyncratic characteristics of each account. We did not use the (conditional) fixed-effects model proposed by Hausman, Hall, and Griliches (1984) because it gives non-zero coefficient estimates for time-invariant dependent variables (Allison & Waterman, 2002).

Let $y_{i,t}$ be the number of sales leads (or won opportunities) from account i in fiscal year t, $i = 1,\ldots,784$, $t = 2,3,4$, and t starts from 2 because we use lagged values as independent variables. By doing so, we alleviate the concern that an account that brings more sales opportunities in a year is more interested in working with the service provider and thus engages more with its CM activities in the same year.

We first assume that $y_{i,t}$ follows a Poisson distribution with mean parameter $\gamma_{i,t}$ that follows a gamma distribution with shape parameter $\lambda_{i,t}$ and scale parameter δ_i. These assumptions yield a negative binomial model with the probability form:

$$P(Y_{i,t} = y_{i,t} \mid \lambda_{i,t}, \delta_i) = \frac{\Gamma(\lambda_{i,t} + y_{i,t})}{\Gamma(\lambda_{i,t})\Gamma(y_{i,t} + 1)}\left(\frac{1}{1+\delta_i}\right)^{\lambda_{i,t}}\left(\frac{\delta_i}{1+\delta_i}\right)^{y_{i,t}}. \quad (1)$$

To account for the unobserved random effect of each account, we further assume $1/(1+\delta_i)$ follows a beta distribution with shape parameters r and s. Therefore, the joint probability of the number of sales leads from account i over time is

$$P(Y_{i,2} = y_{i,2},\ldots, Y_{i,4} = y_{i,4} \mid \lambda_{i,t}, r, s) = \frac{\Gamma(r+s)\Gamma\left(r + \sum_{t=2}^{4}\lambda_{i,t}\right)\Gamma\left(s + \sum_{t=2}^{4} y_{i,t}\right)}{\Gamma(r)\Gamma(s)\Gamma\left(r + s + \sum_{t=2}^{4}\lambda_{i,t} + \sum_{t=2}^{4} y_{i,t}\right)}\prod_{t=2}^{4}\frac{\Gamma(\lambda_{i,t} + y_{i,t})}{\Gamma(\lambda_{i,t})\Gamma(y_{i,t}+1)}. \quad (2)$$

The likelihood for estimation is the product of the joint probabilities over accounts.

We assess the impact of engagement with CM activities of account i in year $t-1$ on the number of sales leads or won opportunities from the account in year t. Therefore, we specify $\lambda_{i,t}$ as follows:

$$\lambda_{i,t} = exp\left[\beta_1 PE_{i,t-1} + \beta_2 DE_{i,t-1} + \beta_3 DC_{i,t-1} + \beta_4 RL_{i,t-1} + \sum_{j=1}^{7}\beta_{5,j} Ind_{i,j} + \sum_{k=1}^{3}\beta_{6,k} Area_{i,k} + \sum_{y=2}^{3}\beta_{7,y} Year_{t,y}\right], \quad (3)$$

where

$PE_{i,t-1}$ = account i's engagement with the service provider's in-person events in year $t-1$;

$DE_{i,t-1}$ = account i's engagement with the service provider's digital events in year $t-1$;

$DC_{i,t-1}$ = account i's engagement with digital content posted on the service provider's websites in year $t-1$;

$RL_{i,t-1}$ = the relationship length between account i and the service provider at the end of year $t-1$;

$Ind_{i,j} = 1$ if account i belongs to industry j or 0 otherwise;

$Area_{i,k} = 1$ if the account i is located in area k or 0 otherwise;

$Year_{t,y} = 1$ if year t is the yth year in our data or 0 otherwise; and.

$\beta_1,\ldots,\beta_{7,y}$ = coefficients to be estimated.

A positive coefficient means that the corresponding variable has a positive association with the dependent variable. The model is illustrated in Fig. 2.

4. Results

4.1. Empirical findings

The estimation results are reported in Table 2. We first confirm that the proposed model, compared with other sub-models, is the most appropriate model for our analysis. Likelihood ratio tests suggest that the random-effects negative binomial regression model fit the data better than a pooled negative binomial regression model (the minimum chi-square value of the two models is 1734.53; p-value < 0.001 for all models), which performs better than a Poisson regression model (the minimum chi-square value of the four models is larger than 34,000; p-value < 0.001 for all models).

Table 2 reports the effects of an account's engagement with CM activities on the number of sales leads or won opportunities from that

Table 1
Descriptive statistics and correlation coefficients of key variables.

	Mean	S.D.	Min.	Max	Correlation coefficient							
					[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Dependent variables												
[1] Number of sales leads	16.32	30.27	0.00	376.00	1.00							
[2] Number of won opportunities	10.00	20.42	0.00	322.00	0.97	1.00						
Independent variables												
Engagement with CM activities (All employees)												
[3] In-person events (unit = time)	0.07	0.55	0.00	12.00	0.09	0.08	1.00					
[4] Digital events (unit = 1000 times)	0.14	0.34	0.00	6.31	0.46	0.41	0.17	1.00				
[5] Digital content (unit = 1000 tunes)	0.89	4.55	0.00	123.67	0.17	0.16	0.05	0.30	1.00			
Moderators												
Engagement with CM activities (only employees with high job titles)												
[6] In-person events (unit = time)	0.04	0.32	0.00	6.00	0.06	0.05	0.88	0.17	0.04	1.00		
[7] Digital events (unit = 1000 times)	0.04	0.11	0.00	1.65	0.38	0.33	0.20	0.78	0.23	0.23	1.00	
Control variable												
[8] Relationship length (unit = year)	16.41	13.32	0.23	115.40	0.12	0.11	0.02	0.08	0.03	0.02	0.06	1.00

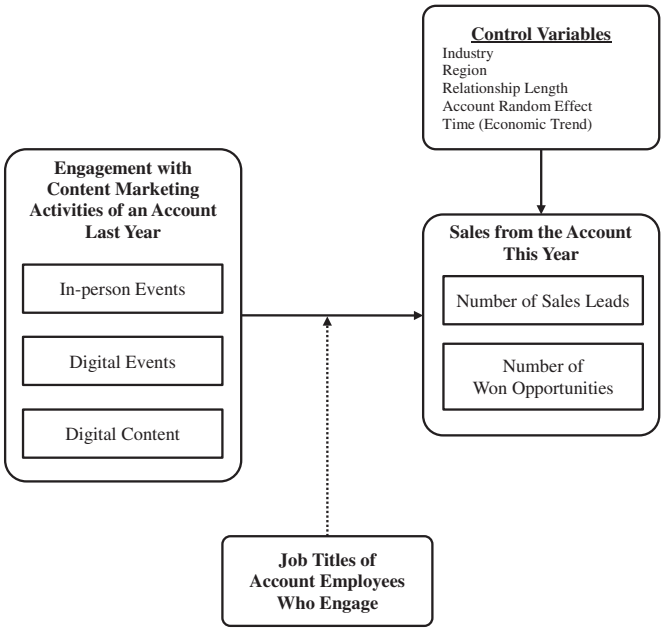

Fig. 2. Empirical model framework of this study.

Table 2
The effects of engagement with content marketing activities of an account on the number of sales opportunities from the account.

	Model 1 Number of sales leads			Model 2 Number of won opportunities		
	Coef.[a]	S.E.	p-value	Coef.[a]	S.E.	p-value
Engagement with CM activities (all employees)						
In-person events	0.007	0.020	0.728	− 0.002	0.023	0.936
Digital events	**0.242**	0.048	< 0.001	**0.247**	0.052	< 0.001
Digital content	**0.013**	0.005	0.011	**0.014**	0.005	0.011
Relationship length	**0.015**	0.004	0.001	**0.016**	0.005	0.002
Random effect parameters						
r	1.077	0.062		1.168	0.074	
s	0.908	0.056		0.693	0.044	
Log-likelihood	− 7263.324			− 6178.010		

Note: a. coefficients in bold type are significant at the 0.05 level.

account. Model 1 uses the number of sales leads as the dependent variable, while Model 2 uses the number of won opportunities. The results indicate that, at a significance level of 0.05, an account's engagement with the service provider's digital events and that with digital content on the service provider's websites are significantly and positively associated with both the numbers of sales leads and won opportunities. Therefore, H1a is supported. However, we do not find a positive association between an account's engagement with the service provider's in-person events and either of the dependent variables. As a result, H1b is not supported. Overall, the results suggest that engagement with digital CM may be more effective than with in-person CM in driving sales opportunities. Hence, H2b is supported. As to the control variables, in line with the literature, relationship length has a positive association with the number of sales leads or won opportunities. We also find significant differences across industries, locations, and years. Since industries and locations are encrypted by the service provider, we will not discuss interpretations.

4.2. The moderating effects of account employees' job titles

We further explore whether the effects of in-person and digital events depend on who engages with those CM activities. Specifically, we focus on the difference between account employees with low and high job titles. In general, account employees with high job titles, such as C-suites and other executives, have more power and influence within their organizations than the other employees (Coff, 1997; Wang, Gupta, & Grewal, 2017). The literature has shown that the buying center for professional services involves mostly employees with high job titles (Dawes, Dowling, & Patterson, 1992; Lynn, 1987; Stock & Zinszer, 1987). Even when they do not belong to the buying center, those employees with high job titles are more likely to affect the members of the buying center. Therefore, CM activities may be more effective when account employees with high job titles engage.

Our data include each account employee's job titles. We categorized the titles into high (i.e., the C-suites and other executives) and low ones (i.e., managers, analysts, and the others). The service provider confirms that internally it considers the C-suites and other executives more influential than the others. Note that our unit of analysis is an account. Therefore, to test the moderating effect, we count the times that employees with high job titles attend CM activities in a fiscal year for each account. Specifically, we measure their engagement with in-person and digital events. We cannot generate job title variables for digital content because we do not know who exactly accesses the websites.

Methodologically, we include both the engagement with CM activities of all employees and that of only employees with high job titles in the account:

$$\lambda_{i,t} = exp\left[\beta_1 PE_{i,t-1} + \beta_2 DE_{i,t-1} + \beta_3 DC_{i,t-1} + \beta_4 HPE_{i,t-1} + \beta_5 HDE_{i,t-1} + \beta_6 RL_{i,t-1} + \sum_{j=1}^{7} \beta_{7,j} Ind_{i,j} + \sum_{k=1}^{3} \beta_{8,k} Area_{i,k} + \sum_{y=2}^{3} \beta_{9,y} Year_{i,y}\right], \quad (4)$$

where

$HPE_{i,t-1}$ = account i's engagement with the service provider's in-person events in year $t-1$ considering only account employees with high job titles; and.

$HDE_{i,t-1}$ = account i's engagement with the service provider's digital events in year $t-1$ considering only account employees with high job titles.

The coefficients β_4 and β_5 capture the different effects on the number of sales opportunities between account employees with high job titles and those with low job titles regarding their engagement with in-person events and digital event respectively. If one coefficient is significantly positive, it suggests that the effect of engagement with the type of CM activities on the number of sales opportunities is stronger when account employees with high job titles engage.

Table 3 reports the estimation results for the moderating effects. Regarding the number of sales leads, Model 3 suggests that account employees' job titles significantly moderate the effect of engagement with digital events. Specifically, the effect of engagement of account employees with high job titles is more positive than that of account employees with low job titles. However, there is no significant moderating effect of job titles on the effect of engagement with in-person events. Note that the main effects of engagement with CM activities remain the same as those reported in Model 1 in Table 2 in terms of the significance and the coefficient signs. In particular, the positive main effect of engagement with digital events implies that all account employees, regardless of their job titles, contribute to more sales leads when they engage with digital events.

Model 4 in Table 3 shows the results regarding the number of won opportunities. Once again, the results suggest that job titles have a significant moderating effect for digital events and no significant effect for in-person events. The engagement with digital events is more positively associated with the number of won opportunities when account employees with high job titles engage. When the moderators are included in the model, the main effect of engagement with digital events becomes not significant. This finding implies that only when account employees with high job titles engage with digital events is there a positive effect on won opportunities. The other main effects are similar to those reported in Model 2 in Table 2.

5. Discussion and conclusions

CM offers the potential of developing the role of marketing in B2B firms in a way that makes marketing and sales to become better aligned. The questions are as follows. Can B2B CM actually lead to profitable business outcomes for professional service providers? And, what are the best types of CM initiatives? These questions have not previously been well addressed in the literature. To fill this research gap, we use four years of panel data from a large, international, consulting service provider and random-effects negative binomial regression models to study the effects of key accounts' engagement with different types of CM activities on sales leads and won opportunities from those accounts. We found that the more an account engages with the service provider's digital events such as webcasts or digital content on its websites, the more sales leads and won opportunities come from the account. Thus, we demonstrate that engagement with digital CM activities is more effective in advancing business outcomes. This implies that marketing can play a complementary role to the sales force's orientation to personal selling by emphasizing digital CM.

We further found that the association between engagement with digital events and the number of sales leads or won opportunities is even stronger when account employees with high job titles engage. Specifically, even though the engagement with digital events has a positive association with the number of sales leads, regardless of account employees' job titles, it is only the engagement with digital events of employees with high job titles that has a positive association with the number of won opportunities. Care must be taken in interpreting the lack of an effect on won opportunities for employees with low job titles. This effect is borderline significant (i.e., the p-value is 0.103 for the effect of engagement with digital events by all account employees in Model 4 in Table 3), so sample size may be an issue. Moreover, it is the case that CM for employees with low job titles is related to sales leads and sales leads are necessary for won opportunities. The conversion rate of sales leads to won opportunities is about 60% (and the rate remains around 59–61% across accounts of different relationship lengths). The correlation of won opportunities to the number of sales leads in the previous period is 0.89. So CM for employees with low job titles is linked to won opportunities in that it generates more leads that could be potentially converted to wins. Therefore, we caution against concluding that service providers should focus CM activities on employees with high job titles or that CM targeted at employees with low job titles is wasted. Instead, we suggest additional research on this topic. For example, it could be that employees with low job titles are instrumental in the necessary step of getting the lead, but do not have the authority to award the contract. But leads from lower level employees could influence higher level employees in a way that results in leads from the

Table 3
The moderating effects of account employee's job titles on the effects of engagement with content marketing events on the number of sales opportunities.

	Model 3 Number of sales leads			Model 4 Number of won opportunities		
	Coef.[a]	S.E.	p-value	Coef.[a]	S.E.	p-value
Engagement with CM activities (all employees)						
In-person events	0.029	0.038	0.443	0.030	0.040	0.452
Digital events	**0.124**	0.062	0.044	0.107	0.066	0.103
Digital content	**0.013**	0.005	0.009	**0.014**	0.005	0.009
Engagement with CM activities (only employees with high job titles)						
In-person events	− 0.040	0.068	0.558	− 0.055	0.072	0.445
Digital events	**1.079**	0.288	< 0.001	**1.385**	0.328	< 0.001
Relationship length	**0.015**	0.004	0.001	**0.015**	0.005	0.002
Random effect parameters						
r	1.089	0.062		1.185	0.075	
s	0.927	0.058		0.710	0.045	
Log-likelihood	− 7257.036			− 6169.539		

Note: a. coefficients in bold type are significant at the 0.05 level.

company. Low level employees may be promoted, and brand associations about the service provided may persist over time. Further research is needed to understand how interactions in the buying process are affected by CM. Establishing relationships with all employees of the client organizations may well be a sound strategy as opposed to focusing mainly on employees with high job titles.

We did not find that an account's engagement with in-person events is associated with the number of sales leads or won opportunities from the account. Attending an in-person event would seem to require more involvement from an account employee than attending a digital event because the employee must physically travel to the event, requiring additional time and travel expenses. Through face-to-face contacts, the firm's representatives would also seem to have greater opportunities to deliver content and bond with the client. Therefore, it might be surprising that engagement with in-person events did not have a significant positive effect on lead generation, and we suggest further research to explain this. One possibility is that the monetary and non-monetary costs incurred by attending an in-person event may offset the value derived by the account employee attending the event (Mitchell et al., 2016). This argument could also explain the significant effect of engagement with digital events and digital content because it incurs minimal costs for account employees to engage with digital events or digital content. For example, an employee who starts to listen to a webinar or read a white paper and does not find the content to be valuable can simply stop listening or reading. Traveling to an in-person event requires substantially more effort and resources. Future research can validate this explanation by exploring how transaction costs to engage will affect individuals' overall assessment after engagement with CM activities.

Another explanation is that in-person events are more multi-dimensional than digital ones in that the focus of, for example, a webcast is on delivering content, while in-person events often have social and networking features as well as information. Research is needed on what account employees do at in-person events and what content, if any, they consume. This is a rich area for future research because event organizers will increasingly be able to track client behaviors during in-person events, e.g., with RFID chips embedded in event badges, or having clients swipe their badge to enter presentation sessions. This detailed record will enable organizers to study what types of engagement behaviors lead to business outcomes and optimize the design of events.

The costs of creating and executing in-person versus digital CM activities should also be considered. The marginal costs of distributing an additional copy of a digital white paper or having an additional attendee listen to a webcast are close to zero, while the marginal cost of having an attendee at an in-person event, which often involves catering and renting physical space for the event, can be substantial. Likewise, the cost of having an expert give a webinar is much lower than paying travel costs and speaker's fees for conference presenters.

5.1. Limitations

Our study used a large and diverse sample of buyer firms. It is limited in that we only have data from services offered by the consulting industry, where reputation is extremely important. Therefore, our findings about CM may not apply to other service industries. CM might be less effective for B2B brands based more on functional, tangible benefits that can differentiate their offerings from the competitors' ones. In addition, we studied a large, well-known company that has been in business for over 100 years. A smaller, start-up B2B service firm would likely use CM differently. For example, a start-up would likely need CM to generate awareness, a goal that is less important to the firm we studied.

Our focus has been on existing relationships (designated as key accounts), and our findings may not apply to non-key accounts, which include smaller companies and prospects who are at a much earlier stage of the purchase funnel. There might be selection biases regarding invitation-only, in-person events because an account can only engage with those CM activities after receiving invitations. These data limitations, to some extent, are the results of the sponsoring firm's targeting strategy, by which they invite their key accounts. Nonetheless, this strategy is a common one for B2B firms. We encourage future research to further explore the effectiveness of CM in other contexts and test the generalizability of our findings.

5.2. Implications for the future of marketing and sales

We believe that CM should be viewed as an integrative component of the overall marketing and sales effort. Our finding that digital CM activities are more effective than in-person CM activities suggests a new way, one which is complementary to the sales force, to practice marketing in B2B service organizations. Many scholars have urged that sales move beyond a narrow selling approach to adapt a value creation (Terho, Haas, Eggert, & Ulaga, 2012) or service orientation (Vargo & Lusch, 2008). As reviewed by Terho et al. (2012), this has led to a number of proposals for rethinking sales activities.

Content marketing offers an effective new way for marketers to become instrumental in the value creation process. Perhaps the most important kind of value for B2B firms is informational (Holbrook, 2006; Mitchell et al., 2016; Sheth et al., 1991). B2B CM can provide useful information to client employees by keeping them up-to-date on trends, helping them make better decisions, giving them ideas, providing advice, and prompting them to think differently about their business. B2B CM should be thought of as a service that provides added value for customers independently of the product being sold, value that will be reciprocated in sales results.

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