

Optimising behavioural engagement on Twitter: determining the applicability of the revised task media fit and identifying the linguistic characteristics of Tweets

Sheena Leek and David Houghton
Birmingham Business School
United Kingdom

Louise Canning
Kedge Business School
France

Judy Zolkiewski
Alliance Manchester Business School
United Kingdom

Catherine Sutton Brady
University of Sydney Business School
Australia

Abstract

Twitter, a microblogging social networking system, is a new communication channel which has been readily adopted by business-to-business companies. Companies want their customers and potential customers to engage with tweets. Customer engagement consists of three components, behavioural, cognitive and emotional and whilst companies aim to achieve cognitive and emotional levels, the only level readily observable is behavioural engagement i.e. the number of favourites, comments and retweets. The task media fit theory suggests that certain tasks are performed more effectively via specific media i.e. one which is sufficiently rich enough. This theory was developed prior to the development of social media and subsequent research has revised and adapted it to the use of Twitter in the healthcare sector. Specifically, it identified the kind of links embedded in tweets which resulted in more favourites. Complementing this was the finding that linguistic differences of tweets leads to differing levels of behavioural engagement i.e. more favourites and comments. The aim of the current research is to determine whether the revised task media fit is applicable across different sectors. It also aims to determine whether a consistent set of linguistic characteristics lead to higher levels of behavioural engagement across different sectors.

Introduction

Markets rely on dynamic, interactive exchanges between parties (Araujo, 2007; Håkansson et al., 2009). An important feature and consequence of this type of exchange is the engagement of those who participate in it. Amongst the variety of disciplines which have examined engagement, our interest lies in the marketing domain, and particularly that associated with customer engagement. Customer engagement, described as a psychological state emanating from interaction with a focal agent (Brodie et al., 2011) consists of 3 dimensions, namely emotional, cognitive and behavioural (Hollebeek et al., 2011). We concentrate on the latter i.e. the degree of time, energy and effort that an individual affords a particular object during exchange episodes.

While in business markets information and social exchange are understood to be particularly pertinent to customer engagement, technological advances have broadened the media through which such exchanges can be played out. Interpersonal contact (face to face or remotely) has been the dominant means for interactive exchange, but developments in digital communication systems have resulted in shifts in both the capacity and content of information exchange in business markets. Social media platforms, for example, not only provide parties with a wider choice of communication channels for dynamic exchange, but also enable interaction episodes which are quicker and free from the geographical and time constraints of traditional media (Toppi et al., 2011; Wang et al., 2016). This broadening of the possibilities for exchange extends to those who might be party to it; for example, besides one-to-one communication between company representatives, social media enables one-to-

many dynamic communication with any actor being able to interact simultaneously with a company's various interested stakeholders (Mehmet and Clarke, 2016).

Understanding of the use of social media in the industrial market place is gaining prominence (see for example special issue section in *Industrial Marketing Management* 2016, vol. 54) and connections between social media and engagement have attracted considerable attention in consumer markets. In a business-to-business context, however, this connection is only now starting to be made and while authors such as Leek et al. (2017) provide valuable insight into communication task, language use and behavioural engagement, their investigation is sector specific. We seek to build on their work by examining behavioural engagement across multiple sectors and in doing so to draw from the task media fit model in order to develop a unifying theory of engagement and social media in business markets. This paper presents the conceptual foundations for our work, starting with an initial presentation of the notion of engagement in business markets before going on to examine the use of social media in B2B. Our focus on Twitter leads us to an examination of the current use of Twitter in B2B markets and researcher attempts to apply the task media fit model to this microblogging platform. We conclude by outlining our research questions alongside future research proposition to answer these questions.

Engagement in business markets

As Leek et al. (2017) note, established understanding of the nature of exchange in business markets and the emerging concept of engagement are complimentary. Exchange in business markets is interactive, frequently on a repeated basis and typically both multi-directional as well as involving multiple actors. With regards to information and social exchange, the engagement of those party to exchange episodes can shape both the behaviour and experience of the actors involved in specific exchange episodes. Broadly speaking, engagement can be explained as the level of resource that an individual invests in relation to a particular object, this resource having 3 constituent elements, namely cognitive, emotional and relational. Thus, one might expect information and social exchange to be affected by the cognitive, emotional and behavioural resource that individual actors invest in exchange episodes.

As a concept, engagement has been explored in organizational settings to understand employee behaviour and performance (e.g. Saks, 2006) and in market-related settings to understand consumer behaviour and experiences in relation to brands and services (e.g. Dessart et al., 2014; Oh et al., 2016). In a business market setting, interest in engagement and specifically in relation to social media is nascent but includes

- *organizational perspectives*, such as employee brand engagement (Pitt et al., 2017) and cross functional integration (Chirumalla et al., 2017)
- *customer engagement models*, drawing from S-D logics and RBV perspectives (Hollebeek, in press)
- *specific communication media*, such as comparisons of face-to-face vs. digital contact for customer and order acquisition (Wang et al., 2017) and the use of Twitter for behavioural engagement (Leek et al., 2017).

Our interest lies in combining a specific communication theory, namely, the task media fit model, with the behavioural component of customer engagement to identify how B2B companies can effectively use social media for the purpose of interaction with/between their various stakeholders.

B2B use of social media

Social media are digital platforms and services which facilitate actors, both individuals and companies, in exchanging information and engaging in dialogue (Hollebeek et al., 2014). It encompasses a variety of platforms, including social networking sites such as Facebook, LinkedIn, and Google+, microblogging sites such as Twitter, and content provision platforms such as YouTube. Ninety two percent of marketers perceive social media as being important to their business (Stelzner, 2014). This importance is reflected in the high level of social media activity amongst B2B companies; Brandwatch (2015) research found B2B companies posted 3,690 times per hour, and 31 million mentions a year were generated. The number of posts created varied by sector with Business Software by far the highest (38,316), followed by Medical (10,022), Military Defence (6,180) and Chemical the lowest (1,981) (Brandwatch, 2015).

Social media have both an informational and relational role. They are used to convey information to interested stakeholders, obtain information from stakeholders and work with stakeholders to create knowledge for a variety of purposes (Brink, 2017; Huotari et al., 2015). This enables various organisational tasks including creating brand awareness and communicating the brand to a wide audience, including present and potential customers (Jussila et al., 2014; Michaelidou et al., 2011), providing the latest company information (Brennan and Croft, 2012). It can play a supportive role in sales (Agnihotri, 2012; Brennan and Croft, 2012; Guesalaga, 2016; Itani, 2017). Companies can use social media to gather information on customer needs through customer feedback (Michaelidou et al., 2011), new product ideas and business opportunities (Jussila et al., 2014). Social media encourages interaction and the exchange of information (Parveen et al., 2015). It also plays a role in conducting market research (Brennan and Croft, 2012). Intertwined with social media as a medium for interaction and exchange is the perception that it has a relational role, assisting in the initiating, developing and maintenance of relationships. For example, research has found social media can assist in initiating relationships through prospecting for sales (Brennan and Croft, 2012), in the development and maintenance of relationships through providing sales support (Guesalaga, 2016; Itani, 2017; Jussila et al., 2014), and facilitating collaboration with customers on research and development (Brink 2017; Chirumalla et al., 2018; Jussila et al., 2014; Ylimaula et al., 2013) and encouraging joint learning (Brink, 2017; Michaelidou et al., 2011). Social media has also been shown to enhance the efforts of sellers focused on long term relationships (Schultz et al., 2012). Its role in relationship management and effective networking has been highlighted by several authors (Barac et al., 2017, Boccencelli et al., 2017).

In order to be able to perform these tasks the supplier organisation must have the knowledge and capabilities to develop a strategy for using social media and be committed to maintaining training in this area (Guesalaga, 2016). Companies must have an understanding of the type of media that will be suitable for conveying the message to the target audience (Kaplan and Haenlein, 2010; Lashagi et al., 2018). Companies must aim to evoke a reaction from the target audience encouraging them to at least engage behaviourally (Guesalaga, 2016). The stakeholders' behavioural engagement can be used by the company to build and develop further interactions both through social media and other communication channels.

Communication theories and social media

In order for the various informational and relational objectives to be achieved, social media must be effective in reaching and behaviourally engaging an array of different stakeholders. Communication theories such as the media richness theory (Daft and Lengel, 1984, 1986) and the task media fit theory (McGrath and Hollingshead, 1993) take the perspective that the communication channel has to be appropriate for the task selected, a phenomenon supported by more recent work in B2C (Kaplan and Haenlein, 2010) and B2B (Leek et al., 2016) social media use. The media richness theory presents a hierarchy of media from high to low according to four criteria, the availability of instant feedback, the capacity of the medium to transmit multiple cues, the use of natural language and the personal focus of the medium (Daft and Lengel, 1984, 1986). From media richness theory McGrath and Hollingshead (1993) developed the task media fit model which suggests the performance of a task will be enhanced by picking a media which has an appropriate level of richness, neither too rich nor too lean. Computer text mediums were proposed to be a good fit for generating ideas and plans, a marginal fit for identifying correct answers, and a poor fit for judgement decisions and negotiation. Since these models were initially proposed, developments in information technology have created a number of computer communication channels e.g. various social media platforms which could be perceived as rich in terms of Daft and Lengel's (1984, 1986) criteria. Many of these new channels have the potential to provide instant feedback, although use of social media channels does not guarantee speed, as it can be used asynchronously. In addition to text and the use of natural language, other cues can be used including images, and video. Developments in technology have enabled links to other communication channels to be incorporated providing further information. In B2C research it has been found that consumers actively utilise brand content in photographs to present and develop a desired identity (Hollenbeck and Kaikati, 2012). In contrast to the channels considered by Daft and Lengel (1984, 1986) and McGrath and Hollingshead (1993) in their models, many of these newer channels have a public facing focus with the ability to interact one to one and one to many in both a public and private space. The public facing

element and the potential to see other actors' reactions including likes, comments and shares is an additional quality which influences suitability of a medium for a task. Thus, not only do social media offer different richness between platforms, e.g. Instagram rich in imagery, Twitter richer in text (e.g. Kaplan and Haenlein, 2010), but also within platforms, such as posting photos in Facebook groups, but also having the ability in Facebook to communicate directly, synchronously and privately using text-based instant messaging. For the purposes of our study we have decided to concentrate on Twitter and investigate specifically how the content can be used to behaviourally engage customers. The following section looks at the use of Twitter to date in a B2B context.

The applicability of the task media fit and use of language for Twitter in a B2B context

Our reason for deciding to concentrate on Twitter is because of its prevalence in a B2B context. Twitter has approximately 328 million monthly active users which encompasses a variety of stakeholders including companies (FT, 2017). Seventy five percent of the Fortune 500 companies use Twitter (Swani et al., 2014). Initially companies were only able to use up to 140 characters to disseminate their message to self-selected followers. However, Twitter doubled the number of characters to 280 characters in November 2017 (Sulleyman, 2017). The "@" symbol can be used in a tweet to include a specific actor. The "#" symbol within a tweet is associated with a specific discussion on Twitter. It also enables users to perform searches to identify associated content and contributors to the discussion. Twitter is the most commonly used social media platform in B2B, it contained 73% of the mentions, followed by Facebook (13%), blogs and forums contained far fewer mentions, both containing 3% of the mentions (Brandwatch, 2015). Of the mentions the companies posted themselves 89% were conducted on Twitter and as a result 73% of mentions from other stakeholders was also through Twitter (Brandwatch, 2015). As Twitter is commonly used in the B2B context it is vital for companies to use it in an optimal manner to achieve their objectives. Task media fit as a theory was developed prior to the existence of social media, however research has applied the model to Twitter to identify the function of tweets and the degree of behavioural engagement in the healthcare sector (Leek et al., 2016). This research produced a revised task media fit model specifically for Twitter (Table 1).

Figure 1: A Revised Task Media Fit Model: Twitter and Embedded Links (Leek et al., 2016).

	Task Type		
	<i>PR</i>	<i>Information Sharing</i>	<i>Problem Solving</i>
<i>Twitter</i>	Marginal fit	Poor fit	Poor fit
<i>Twitter with Co. Website</i>	Poor fit	Good fit	Medium fit
<i>Twitter with Co. Website +PDF</i>	Poor fit	Good fit	Medium fit
<i>Twitter with Co. Website + Links</i>	Poor fit	Good fit	Medium fit
<i>Twitter with Video on Co. Website</i>		Marginal fit	Marginal fit
<i>Twitter with Employee Blog</i>			
<i>Twitter with Online Brochure</i>			
<i>YouTube</i>	Good fit	Marginal fit	Medium fit
<i>Twitter with LinkedIn Group</i>	Poor fit		Good fit
<i>Twitter with Webcasts</i>	Poor fit	Good fit	
<i>Twitter with External Website with no Co. contribution</i>	Good fit	Marginal fit	Poor fit
<i>Twitter with External Website + Co. contribution</i>	Good fit	Marginal fit	Poor fit

[Gray shading indicates a higher level of follower response]

For each of the three types of task identified, tweets with different types of embedded links varying in richness were used (Leek et al., 2016). Tweets with embedded information sharing links to company websites, with and without PDFs, produced a greater degree of behavioural engagement, i.e. more likes, as did embedded PR links to Youtube videos (Leek et al., 2016). Research is beginning to examine the language used in social media content which encourages engagement (Leek et al., 2017; Pitt et al., 2017). It has been found that certain linguistic differences in tweets lead to greater behavioural engagement, i.e. likes and comments (Leek et al., 2017). Industry research has identified that the construction of social media posts i.e. the use of hashtags, images, videos and links differs across sectors; for example, construction and heavy industry have a greater tendency to use videos and the medical sector have a greater tendency to use links but are less likely to use images (Brandwatch.com, 2015). Academic research has investigated how behavioural engagement varied with company type, with service companies receiving more likes and comments than product companies in healthcare (Leek et al., 2017).

The research outlined (Leek et al., 2016, 2017; Brandwatch, 2015) aimed to identify how companies generally use social media and more specifically how they can optimally utilise language and the various types of links in Twitter to evoke behavioural engagement in followers. However, the findings of Leek et al. (2016; 2017) centred on a single sector with a narrow selection of companies. Whilst offering insight into B2B use of social media in a vastly under-researched area, the central criticism is that the findings related to intended function and linguistic differences could be evidence of contextual behaviour, rather than a broader concept that can be applied elsewhere. Therefore, a necessity exists for further work to be conducted encompassing a wider variety of sectors containing a greater number of companies to develop and build upon the revised task media fit model potentially encompassing the linguistic element.

Thus, the aim of the current research is to further examine the following research questions;

1. Is the revised task media fit model for Twitter applicable in a broader context?
 - a. Is behavioural engagement higher when the tweet and embedded link are a good fit for the task type
 - b. Is the level of behavioural engagement similarly high across different sectors when the tweet and embedded link are a good fit for the task?
2. To determine whether there are specific linguistic characteristics which influence behavioural engagement across different sectors and different tweet functions

Methodology

To answer these research questions, we will undertake a study of tweets gathered from ten sectors – aerospace, agriculture, business software, chemical, construction, energy, heavy industry, industrial, medical and military defence. Within these sectors four companies will be identified initially using Interbrands Global Top 100 Brands list. Companies often have multiple Twitter accounts which may serve a particular geographic area, or a product(s) /service(s). These will be closely examined to determine the most appropriate for the research, The selected companies' Twitter account will undergo a brief period of preliminary observation to ensure they satisfy Kozinets (2010) sampling procedures; the accounts need to be relevant, active i.e. frequent posts are made, interactive i.e. the account contains tweets which followers favourite, retweet and comment on, substantial and heterogeneous i.e. have a substantial number of different types of followers, and be data rich i.e. provide a number of tweets varying in the types of content and construction which will be adequate for analysis. Tweet Archivist Desktop will be used to obtain all of the tweets from the selected accounts for a specific period of time. The preliminary analysis of the accounts will provide an indication of the frequency of tweeting and the period of time for which the tweets is collected will be determined to ensure enough data is obtained for statistical analysis to provide reliable results.

References

- Agnihotri, Raj, Rebecca Dingus, Michael Y. Hu and Michael T. Krush (2016) "Social media: Influencing customer satisfaction in B2B sales." *Industrial Marketing Management*, 53, 172–180.
- Araujo, Luis (2007) "Markets, market-making and marketing." *Marketing Theory*, 7 (3), 211-226.
- Barac, Dusan, Vanjica Ratkovic- Živanovic, Milica Labus, Suzana Milinovic and Aleksandra Labus (2017) "Fostering partner relationship management in B2B ecosystems of electronic media." *Journal of Business & Industrial Marketing*, 32 (8), 1203-1216.
- Bocconcelli, Roberta, Marco Cioppi and Alessandro Pagano (2017) "Social media as a resource in SMEs' sales process." *Journal of Business & Industrial Marketing*, 32 (5), 693-709.
- Brandwatch.com (2015) "B2B Social Media Report", Accessed 27th March 2018.
- Brennan, Ross and Robin Croft (2012) "The use of social media in B2B marketing and branding: An exploratory study." *Journal of Customer Behaviour*, 11, 101-115.
- Brink, Tove (2017) "B2B SME management of antecedents to the application of social media." *Industrial Marketing Management*, 64, 57-65.
- Brodie, Rod J., Linda D. Hollebeek, Bilana Juric and Ana Ilic (2011) "Customer engagement: Conceptual domain, fundamental propositions, and implications for research." *Journal of Service Research*, 14 (4), 250-271.
- Chirumalla, Koteswar, Pejvak Oghazi, and Vinit Parida (2017) "Social media engagement strategy: Investigation of marketing and R&D interfaces in manufacturing industry." *Industrial Marketing Management*. In press.
- Daft, Richard L. and Robert H. Lengel (Eds.) (1984) "*Information Richness: A New Approach to Managerial Behaviour and Organizational Design*." Greenwich: JAI Press.
- Daft Richard L. and Robert H. Lengel (1986) "A proposed integration among information requirements, media richness and structural design." *Management Science*, 32, 554-571.
- Financial Times (2017) "Twitter: Character Test", (28th September)
- Dessart, Laurence, Veloutsou, Cleopatra, and Anna Morgan-Thomas (2013) "Consumer engagement in online brand communities: A social media perspective." *Journal of Product and Brand Management*, 24 (1), 28-42.
- Guesalaga Rodrigo (2016) "The use of social media in sales: Individual and organisational antecedents and the role of customer engagement in social media." *Industrial Marketing Management*, 54, 71-79.
- Håkansson, Håkan, David Ford, Lars-Erik Gadde, Ivan Snehota and Alexandra Waluszewski (2009) "*Business in networks*." John Wiley & Sons.
- Hollebeek, Linda D. (2011) "Exploring customer brand engagement: Definition and themes." *Journal of Strategic Marketing*, 19 (7), 555-573.
- Hollebeek, Linda D., Mark S. Glynn, and Rod J. Brodie (2014) "Consumer brand engagement in social media: Conceptualization, scale development and validation." *Journal of Interactive Marketing*, 28, 149-165.
- Hollebeek, Linda D. (2017) "Developing business customer engagement through social media engagement-platforms: An integrative S-D logic/RBV-informed model." *Industrial Marketing Management*. In Press.
- Hollenbeck, Candice R. and Andrew M. Kaikati (2012) "Consumers' use of brands to reflect their actual and ideal selves on Facebook." *International Journal of Research in Marketing*, 29, 395-405.
- Huotari, Lauri, Paulina Ulkuniemi, Saila Saraniemi and Minna Mäläskä (2015) "Analysis of content creation in social media by B2B companies." *Journal of Business and Industrial Marketing*, 30 (6), 761-770.
- Itani, Omar S., Raj Agnihotri and Rebecca Dingus (2017) "Social media use in B2B sales and its impact on competitive intelligence collection and adaptive selling: Examining the role of learning orientation as an enabler." *Industrial Marketing Management*, 66, 64-79.
- Jussila, Jari J., Hannu Kärkkäinen and Maia Leino (2014) "Social media utilization in business-to-business relationships of technology industry firms." *Computers in Human Behaviour*, 30, 606-613.
- Kaplan, Andreas M. and Michael Haenlein (2010) "Users of the world unite! The challenges and opportunities of social media." *Business Horizons*, 53, 59-68.
- Lashgari, Maryam, Catherine Sutton-Brady, Klaus Solberg Soilen and Pernilla Ulfvengren (2018) "Adoption strategies of social media in B2B firms: A multiple case study approach." *Journal of Business and Industrial Marketing*. In press.

- Leek, Sheena, David J. Houghton and Louise Canning (2017) "Twitter and behavioural engagement in the Healthcare Sector: An examination of product and service companies." *Industrial Marketing Management*. In press.
- Leek Sheena, Louise Canning and David J. Houghton (2016) "Revisiting the task media fit model in the era of Web 2.0: Twitter use and interaction in the healthcare sector." *Industrial Marketing Management*, 54, 25-32.
- McGrath, Joseph E., and Andrea B. Hollingshead (Eds.) (1993) "*Putting the Group back in Group Support Systems: Some Theoretical Issues about Dynamic Processes in Groups with Technological Enhancements.*" New York: Macmillan.
- Mehmet, Mehmet I. and Rodney J. Clarke (2016) "B2B social media semantics: analyzing multi-modal online meanings in marketing conversations." *Industrial Marketing Management*, 54, 92-116.
- Michaelidou, Nina, Nikolettta T. Siamagka and George Christodoulides (2011) "Usage, barriers and measurement of social media marketing: An exploratory investigation of small and medium B2B brands." *Industrial Marketing Management*, 40, 1153-1159.
- Oh, Chong, Yaman Roumani, Joseph K. Nwanjpa and Han-Fen Hu (2017) "Beyond links and tweets: Consumer engagement behaviour and movie box office in social media." *Information and Management*, 25-37..
- Parveen, Farzana, Nor Ismawati Jaafar and Sulaiman Ainin (2015) "Social media usage and organizational performance: reflections of Malaysian social media managers." *Telematics and Informatics*, 32 1, 67-78.
- Pitt, Christine, Kirk A. Plangger, Elsamari Botha, Jan Kietzmann and Leyland Pitt (2017) "How employees engage with B2B brands on social media: Word choice and verbal tone." *Industrial Marketing Management*. In press.
- Stelzner, Michael A. (2014) "Social media marketing industry report: How marketers are using social media to grow their businesses." (31st May) <https://www.socialmediaexaminer.com/SocialMediaMarketingIndustryReport2014.pdf>
- Toppi, Aino-Maija, Pauliina Ulkuniemi, Saila Saraniemi and Minna Mäläskä (2011) "Corporate brand communication through social media in industrial markets." 27th IMP Conference, University of Glasgow, Glasgow, UK, 1st-3rd September.
- Saks, Alan M. (2006) "Antecedents and consequences of employee engagement.", *Journal of Managerial Psychology*, 21, 7, 600-619.
- Schultz, Roberta J., Charles H. Schwepker Jr. and David J. Good (2012) "Social media usage: An investigation of B2B salespeople." *American Journal of Business*, 27 (2), 174-194.
- Sulleyman Andrew. (2017) "Twitter introduces 280 characters to all its users." *The Independent*, (27th April, 2018) <https://www.independent.co.uk/life-style/gadgets-and-tech/news/twitter-280-characters-tweets-start-when-get-latest-a8042716.html>
- Wang, Wei-Lin, Edward Carl Malthouse, Bobby Calder and Ebru Uzunoglu (2017) "B2B content marketing for professional services: in-person versus digital contacts." *Industrial Marketing Management*. In press.
- Wang, William. Y.C., David J. Pauleen and Tingting Zhang (2016) "How social media applications affect B2B communication and improve business performance." *Industrial Marketing Management*, 54, 4-16.
- Ylimaula, Katri-Anna, and Pauliina Ulkuniemi (2013) "Exploring the potential of social media in supplier relationship management." 29th IMP Conference, Georgia State University, J. Mack Robinson College of Business, United States of America, 30th August -2nd September.