Target and position article

Digital, Social Media, and Mobile Marketing in industrial buying: Still in need of customer segmentation? Empirical evidence from Poland and Germany

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ABSTRACT

This study investigates the necessity of customer segmentation in industrial buying regarding Digital, Social Media, and Mobile Marketing (DSMM) from the perspective of a German sensor supplier. First, we conduct a systematic literature review, extracting 37 articles in which our team of researchers jointly with a team of sales representatives of the supplier identify five changes in information behavior associated to customer segmentation: Increasing requirements for information, increasing number of sources, increasing information demands regarding data security and use of mobile devices as well as social media in industrial buying. Thereupon, we address the research question with an empirical study. Our sample includes 139 industrial enterprises from Poland and Germany, which purchase sensor technology from a common German supplier. We test the impact of the buying frequency, the function of the person buying, the industry sector and the country of origin on the perception of the five developments identified in our literature review related to DSMM. Based on these findings, we derive strategies for customer segmentation associated to DSMM in industrial buying.

1. Introduction

Digital, Social Media, and Mobile Marketing (DSMM) describes an ongoing major transformation in marketing. It condenses several technological developments affecting marketing research and practice (Lamberton & Stephen, 2016). In B2B contexts, DSMM usage remains scarce, mainly aiming for aspects such as brand image rather than being implemented in industrial information search and purchasing, yet presenting considerable potentials (Järvinen, Tollinen, Karjaluoto, & Jayawardhena, 2012; Michaelidou, Siamagka, & Christodoulides, 2011; Strong & Bolat, 2016). Information search and purchasing, often summarized as buying behavior, are essential activities of industrial firms (Van Weele, 2004). In industrial buying, information search describes the action conducted by the buyer in order to obtain all relevant information sources for the buying decision, often involving the consideration of data from different origins (Bunn & Clopton, 1993). Industrial buying behavior is characterized as a complex process with multiple dimensions (Johnston & Lewin, 1996) and phases (Brossard, 1998). In B2B contexts, information search and purchasing normally are more formalized than in B2C contexts, for example resulting in buying centers with multiple buyers (Webster & Wind, 1972). In context of DSMM, distinct differences delineate B2B and B2C usage (Moore,

Hopkins, & Raymond, 2013; Swani, Milne, Prown, Assaf, & Donthu, 2016; Swani, Prown, & Milne, 2014). The factors influencing industrial buying are evolving constantly, as reflected by emerging information technologies or cultural developments (Hertweck, Rakes, & Rees, 2009; Wiersema, 2013). Since such alterations are expected especially through DSMM (Lamberton & Stephen, 2016), the present paper addresses the following research questions:

1. Which changes in buying behavior result from the usage of DSMM in B2B contexts?
2. Which factors influence these changes, resulting in valid criteria for customer segmentation for DSMM?

Therefore, this study addresses four aspects which have been comparably seldom regarded in present research. First, no systematic literature review of DSMM in context of industrial buying has been published so far. Alejandro, Kowalkowski, da Silva Freire Ritter, Marchetti, and Prado (2011) state that many studies address subcategories in this field, but do not present a systematic overview. Thus, we intend to provide a systematically derived overview of research articles investigating DSMM in B2B contexts. Second, criteria for customer segmentation in DSMM have scarcely been regarded in B2C as

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Table 1
Journal distribution (*n* = 37).

Journal name	2008–2010	2011	2012	2013	2014	2015	2016	Total
Industrial Marketing Management	1	1		1	1	1	11	16
Journal of Business & Industrial Marketing			1			4	1	6
Journal of Customer Behaviour			2				2	4
American Journal of Business			1					1
California Management Review					1			1
Computers in Human Behavior					1			1
European Business Review						1		1
International Journal of Business Communication						1		1
Journal of Interactive Marketing							1	1
Journal of Internet Commerce				1				1
Journal of Organizational Computing and Electronic Commerce		1						1
Journal of Personal Selling and Sales Management			1					1
Journal of Research in Interactive Marketing					1			1
Marketing Management Journal			1					1
Total	1	2	6	2	4	7	15	37

The detailed list of articles can be obtained from Table A.1 in the Appendix A.

well as in in B2B contexts (Lamberton & Stephen, 2016). Third, the majority of studies concerning industrial buying behavior have been conducted in Anglo-American countries (Alejandro et al., 2011). Germany represents a major market and supplier for the manufacturing industry worldwide, Poland an emerging industrial nation with large potentials. For both Poland and Germany, manufacturing industries play an essential role in the economy (World Bank, 2017). Yet, little research in B2B marketing has been conducted in these two countries, which provides us with a motivation to study them in this research. Fourth, we analyze a homogenous group of companies, which all share a single supplier of sensor technology, representing a comparable information and purchasing environment among the buyers. The buying situation could be different when conducting a survey among buyers in which several suppliers are considered by each of them. Especially for the aspect of customer segmentation, it is relevant to exclude this potential influencing factor.

This paper is structured as follows: First, we present a systematic literature review of DSMM in B2B marketing, illustrating five main research streams. Second, we provide a research model that is based upon the systematic literature review and derived jointly with nine sales representatives of a German sensor supplier. Further, five main research hypotheses are derived. They are subdivided for four main influential factors on buying behavior. Third, the research methodology is described, including the sample and constructs used in our model. Subsequently, we present the findings of the study, testing the hypotheses with data obtained from our sample. Finally, managerial as well as research implications and present future research propositions are illustrated.

2. Literature review

2.1. Selection of articles

In their literature review regarding DSMM, Lamberton and Stephen (2016) do not mention any articles primarily related to industrial buying or B2B marketing. However, their literature review only focuses on five marketing journals. To the best of our knowledge, no systematic literature review of changing information behavior related to DSMM in industrial buying has been published so far. A systematic literature review represents a well-established, transparent, and replicable method for the identification, evaluation, and synthesis of existing publications with an elaborate and well-defined process (Fink, 2013; Tranfield, Denyer, & Smart, 2003).

Regarding the timeframe of our literature review, we chose articles from 2000 to 2016, thereby representing the same timeframe as conducted by Lamberton and Stephen (2016), adding the articles published

in 2016. The publications were obtained by searching in five major databases: ABI/INFO, ProQuest, Scopus, Business Source Complete (EBSCO), and ScienceDirect. The databases are internationally accessible and were chosen in several literature reviews published in high-quality journals. The keywords used were:

Digital (OR) Social Media (OR) Mobile

(AND)

B2B Marketing (OR) Business-to-Business Marketing (OR) Industrial Buying (OR) Industrial Purchasing

We searched for these keywords in title, abstract and keywords. The publication types chosen were academic, peer-reviewed publications. We furthermore excluded several articles out of scope for our literature review, such as articles with primarily technical background or a major focus on DSMM in B2C marketing. Primarily, research articles published in marketing journals were selected. Additionally, we included articles from business and management as well as social and psychological disciplines related to marketing.

Our final selection of relevant literature includes 37 articles from 19 academic journals. Regarding the journal distribution, 26 out of 37 articles are found in *Industrial Marketing Management*, *Journal of Business & Industrial Marketing*, and *Journal of Customer Behaviour*. Sixteen articles are derived from *Industrial Marketing Management*, 11 from its special section 'Social media and social networking in industrial marketing' from 2016. Further eleven articles were found in eleven different journals. We additionally grouped the articles in seven publication periods. As no publications were identified between 2000 and 2007 and only one between 2008 and 2010, we formed the years between 2008 and 2010 into a first publication period. The remaining six publication periods each include one year from 2011 to 2016. Thereby, we find that 26 out of 37 research articles were published between 2014 and 2016. We conclude that DSMM in B2B contexts represents a contemporary topic in marketing research. Its main publication period seems to have begun several years after DSMM-related articles in general. Table 1 shows the complete journal distribution of the 37 articles extracted resulting from the literature review.

2.2. Review process

For further model development, the 37 articles were analyzed regarding the research objective, data collection method used and main results. Four articles are literature-based conceptual work, whereas five articles perform content analyses, i.e. social media content. Case studies, mostly based on interviews are found 14 times, whereas surveys also occur 14 times.

In a next step, two authors, who independently read all 37 articles, identified main research topics, hypothesis, method and results of the