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Insights on the adoption of social media marketing in B2B services

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Abstract

Purpose – The purpose of this paper is to review extant literature on social media marketing (SMM) in B2B service markets, by scrutinizing and categorizing potential benefits for firms. The study, in particular, empirically investigates the adoption of social media (SM) tools by firms operating in two conservative B2B service industries.

Design/methodology/approach – A systematic literature review is carried out driving to a deeper understanding of the current state of knowledge on SM in B2B services. Leading peer-review international journals are scrutinized performing ad-hoc queries on the Scopus database using pre-defined keywords. Moreover, a quantitative research is conducted on 60 firms, i.e. tanker shipping companies and ocean carriers, providing empirical insights on their SM activity on three SM platforms, i.e., Facebook, Twitter, and LinkedIn.

Findings – The outcomes from sample firms shed lights on the adoption rate of the most diffused SM tools, the size of the digital networks of stakeholders (number of followers), the intensity of the communication activity (number of posts, shares, photos, videos), and the level of customer engagement (number of likes and shares).

Practical implications – Research findings suggest to managers that SMM might be an easy-accessible and low-cost option for keeping the pace of sectorial transformations and creating a competitive advantage even in conservative sectors.

Originality/value – The paper, by investigating B2B service sectors, addresses an interesting gap in SMM literature as prior studies mostly focused on B2C industries and manufacturing contexts.

Keywords Social media marketing, Transport, B2B services

Paper type Research paper

1. Background

The advent of Web 2.0 technologies and related applications such as social media (SM) tools, indeed, has dramatically reshaped the business landscape and managerial processes of firms by allowing more direct, rich, and interactive forms of communication where users play an active role in generating and sharing brand- and product-related content (Siamagka *et al.*, 2015). Kaplan and Haenlein (2010, p. 61), in particular, define SM as "[…] a group of internet-based applications build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content." More recently, Huotari *et al.* (2015) have further elaborated the concept arguing that SM are "[…] digital communication platforms and services that allow parties to connect with each another, to share information, engage in dialogue and in which organizations and individuals post content and messages to engage participants and to interact with others by contributing to their discussions." This definition stresses the key elements of SM, i.e. technology and its applications, online contents, the active role played by users, networking and digitally based social relationships, and opportunity for engagement.

In this context, social media marketing (SMM) refers to the actual use of SM applications for marketing purposes (Tuten and Solomon, 2013). Several applications may serve as SMM channels to provide and promote SM services including, among others: blogs and microblogs (e.g. Twitter), social networks (e.g. Facebook; LinkedIn), social

communities, forums/bulletin boards, and content aggregators (Keinänen and Kuivalainen, 2015).

Recently, an increasing number of companies have adopted digital SM for supporting their marketing activities and scholars have recognized the potential of the interactive two-way online communication and collaboration (Michaelidou *et al.*, 2011). In particular, marketing academics highlight that emerging SMM tools can make the exchange process between buyers and sellers more efficient and effective (Marshall *et al.*, 2012; Agnihotri *et al.*, 2016) and may foster effective marketing activities and processes even in small- and medium-sized enterprises (SMEs), thus overcoming resource limitations (Vescovi, 2000; Brink, 2017).

The application of SM via web 2.0 is expected to foster B2B collaboration between sellers, buyers and partners, thus also supporting innovation and co-creation (Jussila *et al.*, 2014; Brink, 2017). Relatedly, several B2B companies begun to incorporate SM channels in their marketing efforts (Keinänen and Kuivalainen, 2015).

Nonetheless, despite their undoubted value and perceived relevance in B2B, extant literature on the implementation of SM tools by these firms "is still in its embryonic stage, with only handful of studies exploring the marketing potential of social media in industrial settings" (Siamagka *et al.*, 2015). Therefore, extant studies on the diffusion of SM in B2B service industries are still extremely limited and literature appears even more fragmented than in manufacturing contexts. As services cannot be experienced before purchase and service firms are demonstrated to significantly rely on word-of mouth (WoM), it appears surprising the scarce attention demonstrated by both academics and practitioners on the usage of SMM in B2B services. By generating and influencing conversations in communities and networks, in fact, SM tools have proved to influence WoM communication (Trusov *et al.*, 2009; Huotari *et al.*, 2015).

In this perspective, extant studies in the service domain have predominantly focused on innovative and/or high-tech business (e.g. information technology, creative industries, life science, etc.), whereas more conservative industries (e.g. professional services, transports, energy, etc.) still appear under researched. Conservative industries are typically characterized by a business environment that is not inclined to managerial changes and, broadly speaking, to innovation (Keegan and Turner, 2001; Kannan and Thangavel, 2007). In these sectors, family-firms and public ownerships are rather common, although general rules about ownership patterns are difficult to be established. In activities such as consultancy and brokerage the firm owner can still belong to the founding family and quite often the executive power is solidly in the hands of family members. In sectors such as public utilities, infrastructure management, ports, etc., we easily find state-owned enterprises running the business and making huge investments.

Conservative industries are sometimes heavily influenced by a strict regulatory regime that set numerous rules and constraints limiting the strategic behavior of incumbents as well as the entry of potential newcomers. Aged and scarcely open-minded executives with modest professional experiences in other business contexts often manage firms operating in conservative industries. Their narrow background drives to an insufficient pro-activeness in taking business decisions and to a humble attention to managerial processes and operational routines (e.g. CSR, customer care, etc.) (Shaw *et al.*, 2005). In this domain, the organization is mostly focused on the production function, neglecting the role of ICT and innovation, as well as underestimating the relevance of the marketing function, which is typically underdeveloped or even missing.

Conservative firms require rather long time-to-market processes as they neglect the expectations and the "voice" expressed by the demand and are not able to manage quickly new product development processes. These firms are often unaware of the

economic benefits of segmentation and pursue heavy investments in physical assets with an expected long lifecycle. In this regard, they seem to pursue quite fuzzy long-term objectives without grounding on a sophisticated knowledge of market needs in its own variety and opportunities of differentiation. Hence, cost leadership is perceived as the most preferred and "safe" option, as market knowledge and related marketing activities are rarely recognized as powerful tools for creating and delivering value to customers.

Questioning about the adoption of SM tools in conservative industries is not a trivial exercise. Growing competition and technological pressure are becoming pervasive also in these businesses and therefore firms are forced to rethink the managerial approach to communication, value delivery and stakeholder management. Indeed, SM might be an easy-accessible and low-cost option for keeping the pace of sectorial transformations and thus creating a competitive advantage. Therefore, the study pursues three interrelated research objectives:

- RO1: to review extant literature concerning SMM in B2B service contexts in order to systematize prior contributions on this issue.

- RO2: to scrutinize and categorize the potential benefits originating from the adoption of SM tools by the B2B service firms operating in conservative industries.

- RO3: to analyze through an empirical research the current adoption and use of SMM tools by B2B service firms operating in conservative industries.

The remainder of the paper is organized as follows. We first present and discuss the results of the literature review, highlighting the main benefits deriving from the adoption of SM tools in the context of conservative service businesses (Section 2). Section 3 provides insights on the method applied and gives some descriptive statistics about the sample. Section 4 illustrates the results emerging from the analysis of data collected through direct observations of the most common SM tools included in the analysis. Then a brief discussion of the main preliminary findings stemming from the empirical research is proposed, also indicating future research avenues on the topic (Section 5), before concluding.

2. SMM in B2B services
2.1 Literature review
In line with RO1, we performed a systematic literature review to achieve a deeper understanding of the current state of knowledge on SM in B2B services. For this purpose, we focused on academic contributions published in leading peer-review international journals. The papers were scrutinized using the Scopus database by performing ad-hoc queries with pre-defined "hot" words (i.e. "social media," "marketing," "B2B" and "services") in the title, abstract, and keywords. Alternative specifications for each word were tempted, to identify all relevant documents (e.g. "BtoB" and "business-to-business" as synonymous for "B2B"). Book chapters, conference papers, and PhD dissertations were ironed out from the analysis, for ensuring homogeneity and consistency and a preliminary database of 74 papers was obtained, covering a ten-year period (2008-2017).

Then each paper was examined by the three researchers in order to assess its actual pertinence to the subject: only contributions validated by all the researchers were maintained in the sample, leading to a final list of 31 papers.

Each sample manuscript was categorized according to the following analytical dimensions: authors' name, year of publication, core topics, theoretical perspective, paper type, method, focus on specific markets (services vs manufacturing), sample industry/sector, geographic coverage, temporal coverage, and main findings. The literature review outcomes are reported in Table I.

Table I.
Social media marketing in B2B services: a literature review

Authors	Year	Main topics	Theoretical perspective	Paper Type	Method	B2B vs B2C	Serv. vs Manuf.	Industry/sector	Geograph. Coverage	Temporal coverage	Main findings
Steyn et al.	2010	Social media release; bloggers; technology acceptance theory	TAM	Research paper (quantitative)	Online survey to bloggers (n = 332); 5-point Likert scale questions	B2B	Both	Technology	Undiscl	Undiscl	Bloggers are influenced in their intentions to use social media releases (SRMs) not only by their current use of the device, but also by their perceptions of their effectiveness and the use of SMRs by others. Moreover, PR practitioners are invited to educate bloggers concerning the effectiveness of SMRs and also about which organizations are using them and how well they are working
Kärkkäinen et al.	2010	Social media in B2B innovation	–	Research paper (quantitative)	Interviews	B2B	Both	Various	Finland	Undiscl	B2B companies used social media slightly less than B2C companies. The greatest potential for social media use in B2B companies' innovation process is seen in the front end phase of NPD process, and in the launch/commercialization phase. The four major challenges in adopting social media in innovation, are: the lack of understanding the possibilities in innovation; difficulties of assessing the financial gains; difficulties in adopting new mental models and practices; the lack of evidence of similar cases using social media in innovation
Michaelidou et al.	2011	B2B Branding; Social Networking Sites (SNS)	–	Research paper (quantitative)	Questionnaire to marketing director (n = 102)	B2B	Both	Various	UK	2009-2010	The study highlights the main barriers to adoption of SNS and points out the limited extent of metrics used by B2B SMEs to evaluate the effectiveness of SNS
Jussila et al.	2011	Social media benefits in B2B	–	Conceptual paper	Literature review	B2B	Both	Undiscl	Undiscl	Undiscl	The literature review reveals many benefits for industrial firms coming

(continued)

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											from the use of social media in NPD. Reported benefits are predominantly qualitative, non-quantified. Interesting output-related benefits dealing with the core of social media (increased enabling of interaction) included benefits coming from widespread employee-customer interactions, as well as significant increases in customers starting interaction with each other. Actual outcome-related reported benefits (e.g. improved solving time of customer problems) are quite few
Swani et al.	2013	Online WOM in social media; social media messages; One-click social plug-in	Social network theory; Hansen's psychological choice model (1976)	Research paper (quantitative)	HLM Poisson model; content analysis; Corporate Facebook accounts (n = 193); corporate wall posts from (n = 1,143)	B2B vs B2C	Both	Various	USA	March 2011-April 2011	B2B Facebook account posts are more effective if they include corporate brand names and avoid "hard sell" or explicitly commercial statements. Moreover, research outcomes suggest that including emotional sentiments in Facebook posts is a particularly effective social media strategy for B2B and service marketers
Royle and Laing	2014	Digital marketing skills gaps	Digital marketer model	Conceptual paper	Qualitative approach (interviews, focus group)	B2B	S	Creative industries (communication)	Undiscl	2013	The study develops a digital marketer model, highlighting the key competencies and skills needed by an excellent digital marketer. The research concludes that guidance on best practice, focusing upon evaluation metrics, future proofing and strategic integration, needs to be developed for the communication industry

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Negruşa et al.	2014	Social media tools; Networking and cluster; Innovation	None	Research paper (qualitative)	Single case study	B2B	S	Life science	Romania	March 2012	The paper demonstrate the existence of different approaches of social media tools used for networking propose which can be adopted by networks and clusters interested in innovation and know-how exchange
Bruhn et al.	2014	B2B Branding; social networking sites (SNS); C2C interactions in B2B brand communities	Social exchange theory, uses and gratifications approach and value-in-the-experience	Research paper (qualitative)	Structural equation modeling (SEM)	B2B	M	IT-sector	Various	2013	Brand trust has a positive impact on brand community trust. Brand community trust leads to an increase in the quality of C2C interactions in B2B brand communities. The quality of C2C interactions in B2B brand communities is proved to hold a positive impact on functional, experiential, and symbolic brand community benefits, which, in turn, foster brand loyalty
Jussila et al	2014	Opportunities and challenges in B2B social media marketing; Differences between B2B and B2C	–	Research paper (quantitative)	Questionnaire to experts (n = 143)	B2B	Both	Technology industries	Finland	May 2011	The paper suggests that there is a significant gap between the perceived potential of SM (social networking site, discussion forums, wikis) and SM use with customer and partners in B2B Finnish companies operating in the technology industry sector. The most common reasons for not using SM are other projects been more important for managers and the companies not being able to measure or assess the benefits for business

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marketing

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Holliman and Rowley	2014	B2B digital content marketing	Relational marketing	Research paper (quantitative)	Interviews	B2B	Both	Various	USA; UK; France	Undiscl	The article points out the role of digital content marketing (DCM) in communication strategy, thereby contextualizing the findings from this study within a broader exploration of the role of digital content in marketing and relational exchanges. Moreover it stresses the importance of finding a right balance between paid DCM, unpaid DCM and social DCM for effective communication
Swani et al.	2014	Customer experience in B2B	Communication and WOM theories; Organization buying literature	Research paper (quantitative)	Longitudinal content analysis; Regression models; Sample of tweets ($n=7,000$)	B2B vs B2C	Both	Various	USA	Undiscl	B2B marketers are found to focus on promoting their corporate brands rather than their product brands in their tweets. Companies with reputable brands can leverage their brand image through SM, because customers who prefer to be associated with reputable brands are likely to engage with them, by spreading positive WOM. In this perspective, emotional appeals are more common than functional cues are important for B2B marketing too and may be effective in SM communications. Hard sell tweets are demonstrated to be infrequent. The SM platform is not well suited to serving as a selling tool; it is more applicable for building customer relationships

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Leeflang et al.	2014	Digital marketing organization issue	None	Research paper (quantitative)	Questionnaire to marketing executives (n=777)	Both	Both	Professional services; Financial services; High-tech and TLC; Manufacturing	Undiscl	Oct. 2011	The findings demonstrate that prominent challenges for digital marketers are the ability to generate and leverage deep customer insights; managing brand health and reputation in a marketing environment where social media plays an important role; assessing the effectiveness of digital marketing
Keinänen and Kuivalainen	2015	Antecedents of B2B social media use	Theory of planned behavior; TAM; task-technology fit model	Research paper (quantitative)	Online questionnaire to customers (n=82); Partial least squares (PLS) path modeling	B2B	S	Information technology service company	Scandinavia; Russia; Poland	Spring 2011	The paper investigates the influence of corporate culture, colleagues' support and personal and psychological factors on customer behavior toward social media business use. Private SM usage has the most significant relationship with SM business use. Colleagues at work also support B2B SM use and personal characteristics are found as antecedents of SM usage in B2B contexts
Siamagka et al.	2015	Determinants of social media adoption	TAM; theory of reasoned action	Research paper (quantitative)	Structural equation modeling (SEM); Mailed questionnaire to senior marketing executive (n=104)	B2B	Both	Aerospace; Healthcare; others	UK	Undiscl	Perceived usefulness of SM within B2B organizational context is determined by image, perceived ease of use and perceived barriers. In addition, the adoption of social media is found to be significantly affected by organizational innovativeness and perceived usefulness
Huotari et al.	2015	Content marketing; user-generated content (UGC);	–	Research paper (qualitative)	Semistructured interviews to experts (n=4);	B2B	Both	Wholesale vendor of agricultural products; LED	Various	Undiscl	B2B companies can influence content creation in SM directly by adding new content, participating in discussions and removing content

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		Personal relationships and interactions			abductive reasoning			lights and related software; Softwarehouse; etc			through corporate user accounts. Moreover, they can use SM tools for controlling employee and their social media behavior or indirectly by training employees to create desired content and performing marketing activities that influence other users to create content that is favorable for the company
Karjaluoto et al.	2015	Industrial marketing communication tools; digital channels; Custom relationship communications	Digital marketing communication, rooted in Interactive marketing and one to one marketing	Research paper (qualitative)	Multiple case study conducted among six industrial firms	B2B	Both	Companies operating internationally as providers of high tech solutions	Undiscl	Undiscl	Although digital marketing communication is one of the most important industrial marketing communication tools, firms have not yet used it to its full potential. Firms use DMC to enhance customer relationship communications, support sales and create awareness; conversely, firms have not yet employed social media tools as a part of DMC as widely as traditional digital tools
Lipiäinen and Karjaluoto	2015	B2B branding; Digital media	Digital Branding	Research paper (qualitative)	Single case study: components supplier and service provider in the energy sector	B2B	Both	Energy	Finland	November 2011- February 2012	The study describes the overall branding logic of an international industrial new company and responds to calls for empirical research on how to build a B2B brand in the digital age and how digital media can be used for branding. Branding in the digital age requires strong internal communication and consistent external communication, but also positioning of the brand in topical conversation

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Table I.

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Mehmet and Clarke	2016	B2B social media marketing communications	Social Semiotic Multimodal framework	Research paper (qualitative)	Single case study: Australian Fairtrade Fortnight 2012 campaign (scrutinizing marketing conversations)	B2B	S		Fair trade	Australia	2012	By mapping and analyzing conversation between Fairtrade Australia and its B2B stakeholders through SM (Facebook and Twitter), the paper aims at providing a comprehensive understanding of how B2B online marketing posts create virtual conversation and what kind of meaning these communication events construct and convey. B2B social media communication provides opportunities for co-created material, leveraging relationships for mutual benefits and creating and fostering an online community
Rooderkerk and Pauwels	2016	Posts and reactions	Theory of conversation	Research paper (quantitative)	Collection of threads (post and comments); negative-binomial analysis; count data models	B2B	S		Health care	Various	October 2009-June 2010	The study addresses the implications of new media platforms for marketing communications, in particular how firms can best seed customer to customer interactions. Research results may enable firms hosting online discussion forums to start more promising discussions and thus increase the appeal of the forum
Leek et al.	2016	Social media and new market channels; Twitter and followers' responses to tweet messages	Task media fit model; media richness theory	Research paper (quantitative)	Non-participant observation; quantitative content analysis; Twitter accounts ($n{=}4$); tweets' content and function ($N{=}838$)	B2B	S		Engineering and consulting (healthcare)	Various	November 2014-January 2015	The paper scrutinizes business marketer use of Twitter and followers' responses to messages tweeted. Results show that Twitter is used for 3 broad functions: information sharing, problem solving and PR. Business marketers use different embedded media according to the function of a tweet

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											message. Follower responses to those message do not vary with the task performed by the tweet, whereas responses differ with the type of embedded link
Järvinen and Taiminen	2016	B2B customer purchasing decisions; digital content	Content marketing theories	Research paper (qualitative)	Single case study; Semi-structured interviews	B2B	M	Industrial goods and services	Finland	Undiscl	The study advances understanding of the organizational processes that support content marketing and shows how content marketing can be combined with B2B selling processes via marketing automation
Agnihotri et al.	2016	Channel multiplicity	Information communication in buyer-seller processes	Research paper (quantitative)	Structural equation modeling (SEM)	B2B	Both	Various	Undiscl	2012-2013	SM use by salespeople influences customers satisfaction. Data supports the positive relationships between responsiveness and customer satisfaction, suggesting that customers appreciate timely responses from salespeople
Guesalaga	2016	Use of social media in sales	Interactional psychology theory; Task-technology fit theory	Research paper (quantitative)	Multiple regression analysis; mailed questionnaire to sales executives (n=220)	B2B	Both	Undiscl	USA	Undiscl	Both organizational competence and commitment with social media as well as individual commitment are key determinants of social media usage in sales
Wang et al.	2016	Social media app; individual communication	Media synchronicity theory (MST)	Research paper (qualitative)	Face-to-face interviews with marketers (n=5)	B2B	Both	Various	East Asia	Undiscl	The findings reveal a missing SMA capability, that of information security and control, which is added to the proposed model and which may be an important addition to MST. This study calls for more research to verify this finding
Lacka and Chong	2016	Social media sites' adoption; Technology	TAM; Nielsen's model of attributes of	Research paper (quantitative)	Online survey to bloggers (n=181); 7-point	B2B	Both	Various	China	Undiscl	Marketers' intentions to use SM sites for B2B marketing affect the adoption and use of those sites. Further, it reveals that the intention

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		acceptance model	system acceptability		Likert scale questions						to use is influenced by users' perceptions of those sites usefulness. Third, the study demonstrate that perceived usefulness is affected by perceived utility and perceived usability
Bernard	2016	B2B social media tools	–	Conceptual paper	Theory building with anecdotal evidence	B2B vs B2C	Both	Various	UK; Ireland	2011-2015	The paper brings insights to the challenges facing CMO in the use of social media. The manuscript provides useful suggestions concerning the link between SM and sustainability and sheds lights on how SM marketing can support managers in informing strategic decisions
Ananda et al.	2016	Transactional and relationship marketing	Marketing organization theory	Conceptual paper	Systematic literature review	Both	Both	Undiscl	Undiscl	2009-2015	The study offers valuable theoretical insight on SM marketing actions and the deployment of SM marketing strategies in companies. The investigation also provides hints about how to maximize the benefits from SM marketing for customer-oriented, market-driven organizations
Brink	2017	Customer Engagement; co-creation	Business model literature	Research paper (qualitative)	In-depth case study	B2B	M	Plastic-producer	Denmark	October 2013-October 2014	Open collaborative business model innovation is needed to apply SM in local business processes. Central and distributed leadership must be integrated to create ownership and responsibility across the SME organization, beyond to customers and partners
Felix et al.	2017	Research priorities for the	–	Conceptual paper	Theory building	Both	Both	Undiscl	Undiscl	Undiscl	SM marketing scope represents a range from defenders to explorers. In addition, SM marketing culture is

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		science of services									suggested to include the poles of conservatism and modernism whereas social media marketing structures are demonstrated to fall between hierarchies and networks
Swani et al.	2017	Popularity of brand posts	Traditional communication model; WOM psychological motivation theory	Research paper (quantitative)	Logistic regression using Bayesian analysis; bivariate Poisson regression results; B2B messages ($n=326$) and B2C message (n 1,141)	B2B vs B2C	Both	Various	USA	Undiscl	B2B buyers are more likely to be motivated to like content containing corporate brand names. B2B marketers might benefit from directing functional appeals to prospects who are looking for information on new offerings (e.g. new task purchase situations) and emotional appeals to customers who want to build on preexisting customer relationships. B2B buyers have turned to SM as a source of information on brands and offerings
Alalwan et al.	2017	Web 2.0 technology and social media platforms; Advertising through social media; Interactions	–	Literature review	Concept-driven systematic review approach	Both	Both	Various	Undiscl	Undiscl	The researchers provide an overview of the main themes and trends covered by the relevant literature such as the role of SM on advertising, the electronic word of mouth, customers' relationship management, and firms' brands and performance. In their review, the Authors investigate the most common research approaches adopted to examine the related issues of SM marketing

Table I.

When it comes to the temporal distribution of the sample manuscript, 26 out of 31 papers have been published since 2014, demonstrating the newness of the concept of SMM in the B2B service domain. Over 50 percent of manuscripts are quantitative research papers (16), whereas qualitative empirical studies rank second (9), followed by conceptual paper (5). Only a literature review paper has been identified, further demonstrating the need for additional efforts in systematizing prior research in this field. Technology acceptance model (TAM) (e.g. Steyn *et al.*, 2010; Siamagka *et al.*, 2015), task-technology fit model (e.g. Keinänen and Kuivalainen, 2015; Guesalaga, 2016), communication and WoM theories (e.g. Swani *et al.*, 2014, 2017), and social network theories (Swani *et al.*, 2013) emerge as the preferred theoretical perspectives to investigate SM marketing in the B2B services.

The analysis of the sample industries/subsectors provides further insights into extant academic discussion on this topic. In particular, prior studies mostly focus on high-tech or innovative industries (e.g. technology, creative industries, life science and healthcare, information technologies), being more traditional and conservative industries (e.g. professional services, financial services, trade, energy, industrial goods and services) quite neglected.

When addressing the spatial scope of papers reviewed, additional interesting outcomes emerge. A number of paper does not provide information concerning geographic references (eight cases), whereas only few papers applies a multi-regional perspective. Unsurprisingly, most contributions examine SM marketing strategies performed by companies originating from Anglo-Saxon countries, e.g., USA, UK, Australia, etc. (nine). The North Europe context attracted the attention of several scholars (six studies), too. A number of geographic areas are still underexplored (Europe, Middle East, and Asia).

As concern the temporal coverage of the sample studies included in the analysis, only 16 manuscripts clearly report the timeframe of their empirical investigation. The meta-analysis performed on sample manuscripts unveils that data have predominantly been gathered in the 2011-2013 period, signaling a certain "wave of interest" on this issue.

The review of prior studies concerning the adoption of SM marketing tools in B2B service contexts enables to differentiate from B2C sectors and manufacturing industries. In their pioneering contribution, Kärkkäinen *et al.* (2010) addressed the role of SM in innovation activities, performing an empirical investigation on 122 B2B Finnish companies operating in both service and manufacturing industries. As a whole, B2B companies are found to use SM slightly less than B2C companies. Relatedly, Negruşa *et al.* (2014) challenged the role of innovative tools in communication by business networks and clusters, and scrutinize the life science industry.

Swani *et al.* (2013) investigated the message strategies most likely to promote online WoM activity for B2B/B2C as well as product/service Facebook accounts. Their findings suggest that B2B Facebook account posts are more effective if they include corporate brand names and avoid "hard sell" or explicitly commercial statements; in addition, including emotional sentiments in Facebook posts is a particularly effective SM strategy for B2B service marketers. Similarly, Swani *et al.* (2014) analyzed customer experience in SM communications, and compared Twitter communications in B2B and B2C domains, performing a longitudinal content analysis on over 7,000 tweets from Fortune 500 companies. Their outcomes provide empirical support to the hypothesis that B2B marketers focus on promoting their corporate brands rather than their product brands in their tweets.

Royle and Laing (2014) focus on the digital marketing skills gap in communication industries and proposes a "Digital Marketer Model" for this service industry, highlighting the key competencies and skills needed by an excellent digital marketer.

A stream of literature has drawn attention on the antecedents of B2B SM use. In this vein, Keinänen and Kuivalainen (2015), paving on the assumptions of the theory of acceptance model (TAM) and those from the task-technology fit model, identified the determinants of SMM tools adoption in B2B high-tech contexts. Private SM usage is found to hold the most significant relationship with SM business activity. Relatedly, Siamagka *et al.* (2015) further investigated this phenomenon, grounding on TAM and theory of reasoned action. Empirical evidence from various industry (e.g. aerospace and healthcare) suggest that the perceived usefulness of SM within B2B organizations is determined by several factors such as image, perceived ease of use, and perceived barriers. In addition, firms' organizational innovativeness and SM perceived usefulness affect their attitude toward SM adoption. Lacka and Chong (2016) investigated the usability of SM sites by addressing the Chinese market and concluded that marketers' intentions to use SM sites for B2B marketing affect the adoption and use of those sites.

More recently, some academics focus on customer reactions to companies' corporate communication through SM, by assessing post reactions and followers' responses to companies' tweets, messages, posts, etc. In this perspective, Rooderkerk and Pauwels (2016) included in their analysis on SM marketing in service B2B contexts both posts and reactions. They examine the implications of new media platforms for B2B marketing communications, and new opportunities for seeding customer-to-customer interactions. Their empirical findings enable firms hosting online forums to start more promising discussions and thus to increase the appeal of the forum. Analogously, Leek *et al.* (2016) addressed business marketer use of Twitter and followers' responses to messages tweeted. Outcomes show that Twitter is exploited for three broad functions, namely: information sharing, problem solving, and PR.

The in-depth literature review performed on prior studies facing SM marketing challenges in B2B services suggests that, although the rate of adoption of SM within B2B organizations is slower than in B2C contexts (Michaelidou *et al.*, 2011) and academic contributions related to B2C businesses outnumber those dedicated to B2B companies, appreciable efforts have been done. Current studies have mostly emphasized the role of SMM tools in supporting innovation and co-creation in B2B contexts (e.g. Wang *et al.*, 2016; Brink, 2017, etc.), in developing supply chain relations (e.g. Negruşa *et al.*, 2014; Huotari *et al.*, 2015) and in fostering positive WoM from customers (e.g. Swani *et al.*, 2013; Leek *et al.*, 2016). Antecedents of SM usage and barriers for SM adoption constitute further valuable fields of investigation (e.g. Keinänen and Kuivalainen, 2015; Siamagka *et al.*, 2015, etc.), whereas conversations between firms and customers as well as interactions among customers are expected to raise additional interests from both scholars and academics (Leek *et al.*, 2016; Swani *et al.*, 2017).

Nonetheless, the review of extant literature unveils conceptual fragmentation. Only few studies have challenged how SM adoption in service companies may differs from SM communication strategies pursued in the manufacturing domain. The academic debate should greatly benefits from an in-depth investigation of the advantages related to the introduction of SM marketing tools in B2B services.

Moreover, prior studies have predominantly scrutinized high-tech/innovative sectors, whereas conservative industries still appear under researched. That raises some concerns about the generalizability of current findings concerning traditional B2B services, where SM capabilities are not widespread and cultural barriers toward digital innovation persists. In this vein, an assessment of benefits originating from SM marketing tools in B2B conservative service industries should provide useful insights.

With regard to spatial and temporal dimensions, significant limitations emerge in extant literature. As most contributions examine SMM strategies pursued by companies from Anglo-Saxon countries, a number of geographic areas are still underexplored

(e.g. Europe, Middle East, and Asia), as well as multi-regional studies and cross-cultural perspectives have not been exploited adequately, yet. When it comes to the temporal coverage of prior empirical research, most contributions focus on limited timeframe, while longitudinal analysis should provide additional insights.

Finally, empirical investigations focus on a specific SM tool, whereas an overarching examination on the SM integrated communication strategies and tactics from B2B companies is still lacking.

2.2 Benefits of SM adoption

To address RO2 the outcomes of the literature review have been further elaborated, by categorizing potential benefits from the adoption of SM tools by B2B service firms in conservative industries. Blogs, social networking sites (SNSs), user-generated content sites, and countless communities across the web may be used by firms for attaining a fine tuning with their customers while they seem to have increased the shift of market power from companies to customers (Galvagno and Dalli, 2014). On the web, greater information about the market is complemented by larger choice alternatives, the ability to exchange information and opinions with peers, in order to rapidly change one's own perceptions and behavior, define brands in a creative manner, and customize products. These trends may defeat the ability of firms to control and manage the traditional marketing process (Wathieu et al., 2002).

SM enable firms to stimulate perceptions, attitudes, and behavior through the accumulation of rational, emotional, and social contents (Gambetti and Graffigna, 2010). In some cases, they may even become platforms where traditional branding practices are replaced by co-creation, through the manipulation of the signs and symbols that define the brand's role in customers' actual use and real life (Lusch and Vargo, 2006; Prahalad and Ramaswamy, 2004).

Less attention, up to now, has been given to SM in B2B contexts (Michaelidou et al., 2011; Jussila et al., 2014), even if they may guarantee substantial benefits to firms adopting them in marketing processes. The lower diffusion of these tools between B2B firms may originate from some specificities of their marketing processes. First, in B2B contexts it is a conventional wisdom that branding is not as relevant as in B2C markets (Kotler and Pfoertsch, 2007). Organizational buyers tend to perceive higher levels of performance and economic risk and they are more involved in the purchasing decision. To mitigate risk perceptions, both buyers and sellers strive to establish long-term, collaborative relationships, unlike typical end consumers (Homburg et al., 2010; Zablah et al., 2010). In addition, B2B offerings tend to be more technical and utilitarian and B2B buyers use a more formal and generally longer group buying process (Swani et al., 2017). Relatedly, B2B marketers tend to promote their corporate brands more than their individual product brands (Mudambi, 2002) and communicate to their audience using a rational tone and highlighting functional characteristics of the offer (Kotler and Pfoertsch, 2007). B2B selling practices are based on information dissemination practices rather than on pull strategies (Swani et al., 2014).

Next to this, in B2B marketing personal relationships and interactions between sales representatives and customers play a fundamental role not only in selling processes but also in post-selling activities, being at "the heart of effective customer relationship management" (Ford et al., 1998; Huotari et al., 2015).

Indeed, SM tools are becoming an interesting component of B2B marketing because of the roles of personal relationships and interactions in these markets. Not only marketing communications and branding have emerged as important areas of management in B2B marketing (Mäläskä et al., 2011), but it has also become more common for professionals to share content within brand communities (Huotari et al., 2015). SM are beneficial in order to

overcome resource limitations and create business opportunities through collaboration, mostly in SMEs. Notwithstanding, their diffusion is evolving relatively slowly (Brink, 2017).

In order to urge and promote the use and diffusion of SM tools among B2B service companies, especially those operating in conservative businesses, we develop an overarching conceptual model that summarizes potential benefits of SMM tools, grounding on a meta-analysis of prior contributions focused on this issue (Table II). For this purpose, we grouped benefits according to the main target of each SMM activity (i.e. customers, employees as well as supply chain and business community). Then we disarticulated the group of benefits related to customers, along with marketing process' phases. Findings suggest that SM can affect the entire marketing process (Guesalaga, 2016): listening the customer (e.g. through participation at LinkedIn groups); approaching the customer (e.g. by posting news in Facebook or Twitter); discovering needs (e.g. via blogs igniting debate on subjects of interest); promoting the value proposition (e.g. through a Youtube video); closing a sale (e.g. driving customers from Facebook to a sales channel); providing post-sale service (e.g. following customers on Twitter).

3. Data and method
3.1 Empirical background and selection criteria
To address RO3 we performed an empirical investigation, which is exploratory in nature, following an inductive analytical approach. In order to assess the actual adoption and use of SMM practices in B2B services, we identified two segments of maritime transport services (tanker shipping and ocean carriers), which show some of the typical features of commodity-based service industries (Johnston and Clark, 2012). Commonly, the sample industries are perceived as rather conservative, because firms are traditionally slow in adopting innovation. Indeed, over the last decade, the growing multiple pressure globally exerted by (supra-) national institutions and various groups of interests is injecting some "green" consciousness in these sectors, thus triggering initiatives oriented to innovation and to a stronger attention to stakeholders.

The selection of the sample was performed by collecting data from reliable and well-established sources. For our purposes, we focused on two different types of firms, i.e. tanker shipping companies and ocean carriers, both operating in conservative businesses. We scrutinized the rank of leading firms worldwide by consulting "Tankeroperator" (www.tankeroperator.com) and "Alphaliner" (www.alphaliner.com) – accessed on March 2017 – and selecting the top 30 operators in each business.

Therefore, half of the sample is composed by shipping companies carrying energy raw materials (e.g. oil, derivatives, etc.) on a global scale. These firms have to take care of the logistics of homogeneous goods, which need to be stored and transported on long-range distances. In this business, the number of yearly transactions with customers is relatively limited, but the associated financial magnitude and commercial risk often become rather high. This B2B industry is dominated by a handful of big players, dealing with a relatively small number of potential customers. Hence, the buying process and the contents of business transactions are quite specific and closely affected by customer needs and bargaining games.

Other sample firms belong to the liner shipping industry in maritime transportation chains. Their core business is to manage the supply chains of manufactured goods across distant geographical locations. Ocean carriers have to deploy their production capacity in advance, taking big financial and commercial risks. One of their main challenges is to go beyond the break-even-point in the exploitation of the capacity in each production plant (i.e. vessels), by attracting huge demand volumes on a regular basis. In this industry, the market population is composed by thousands of atomized customers,

Category	B2B peculiarities	Services peculiarities	Benefit	Literature
Customer_Business Intelligence	Thanks to strong relationships with customers, in B2B and service markets firms may obtain relevant information about emerging needs and competitors' offering directly from customers		Obtain marketplace insights and discover needs Receive (real-time) feedback	Negruşa et al. (2014), Siamagka et al. (2015), Guesalaga (2016), Bernard (2016) Jussila et al. (2011), Negruşa et al. (2014), Swani et al. (2014), Siamagka et al. (2015)
Customer_NPD	Products are, generally speaking, more complex and the development of new products takes significantly more time (than in B2C contexts) Furthermore, customers are often a relevant source of new ideas and they tend to cooperate during the development process in a direct and intense manner		Develop products and services Facilitate co-creation	Jussila et al. (2011), Siamagka et al. (2015) Jussila et al. (2011), Leeflang et al. (2014), Leek et al. (2016)
Customer_Branding	B2B marketers tend to promote their corporate brands more than their individual product brands	Brand meaning is co-created through interactions between customer and supplier and through interactions between customers	Increase brand awareness Enhance brand value Engage customers Increase traffic/subscribers Enhance brand engagement, brand prestige and brand reputation	Michaelidou et al. (2011), Swani et al (2014), Siamagka et al. (2015), Guesalaga (2016), Swani et al. (2017) Siamagka et al. (2015). Guesalaga (2016). Negruşa et al. (2014) Leeflang et al. (2014), Leek et al. (2016), Swani et al. (2017)
Customer_Selling	The sales cycle is often long, complex and multifaceted. Moreover, it usually involves many participants. The availability of up-to-date, rich information to all people involved in the various stages of the buying process is valued by B2B customers		Increase brand loyalty Attract new customers Improve sales Improve customer service and product trials Promotion and distribution of products/services Generate qualified leads	Bruhn et al. (2014) Michaelidou et al. (2011), Royle and Laing (2014), Leek et al. (2016), Guesalaga (2016), Swani et al. (2017) Siamagka et al. (2015), Swani et al. (2017) Jussila et al. (2011) Negruşa et al. (2014) Swani et al. (2014), Guesalaga (2016), Swani et al. (2017)

(continued)

Table II.
Benefits of social media marketing tools in B2B services

Social media
marketing

Category	B2B peculiarities	Services peculiarities	Benefit	Literature
Customer_CRM	B2B and service companies often develop long-term relationships with their customers and are increasingly engaged in the co-creation of mutual value		Create new demand	Bernard (2016)
			Enable different stages in the sales process	Leek et al. (2016)
			Sustain customer loyalty	Jussila et al. (2011), Leeflang et al. (2014), Guesalaga (2016), Swani et al. (2017)
			Increase customer satisfaction (responsiv, customer care, etc.)	Jussila et al. (2011), Siamagka et al. (2015), Agnihotri et al. (2016)
			Manage relationships with customers	Swani et al (2014), Guesalaga (2016)
			Provide post-sale service	Leek et al. (2016), Guesalaga (2016)
			Create customer trust	Leeflang et al. (2014), Negruşa et al. (2014)
			Generate positive customer WoM	Siamagka et al. (2015)
Employees		In service industry sectors, employees are a critical driver of service quality and customers' satisfaction. Their commitment and personal involvement are of paramount importance for attaining better market results	Support recruitment process	Leeflang et al. (2014), Bernard (2016)
			Establish eminence for individuals	Bernard (2016)
			Support internal knowledge management	Bernard (2016)
			Generate corporate WoM	Leeflang et al. (2014)
			Overcoming resource limitations	Brink (2017)
Supply chain and business community	B2B companies and service suppliers offer promises and marshal resources together for customers: the ability to organize complex networks of partners co-creating value is of paramount importance for firm' competitive advantage		Interact with suppliers and cultivate relationships	Michaelidou et al. (2011), Swani et al (2014), Siamagka et al. (2015), Swani et al. (2017)
			Create new business partnerships	Bruhn et al. (2014), Siamagka et al (2015), Bernard (2016), Swani et al. (2017)
			Generate exposure for business improved search ratings	Negruşa et al. (2014)
			Create discussion, debate, etc.	Leeflang et al. (2014), Negruşa et al (2014)
			Enable influencing online conversation	Huotari et al. (2015), Bernard (2016)
			Create educational platform	Leek et al. (2016)

Source: Authors' elaboration

Table II.

TQM

each one expressing specific expectations as well as holding a different bargaining power. Hence, shipping lines are forced to commercially deal with a broad array of B2B clients from various places asking for high quality services in terms of service reliability and customer care.

For this reason, they have developed large cross-border organizations for addressing market needs and establishing ad-hoc relationships with the main customers. Despite the adoption of technological innovations and the required service quality are higher than in the transport of energy commodities, cost leadership is dominant also in this business. Nonetheless, some interesting differentiation areas emerge thanks to some customer segmentation opportunities and the growing resort to CSR activities.

3.2 Sample

Table III reports some descriptive statistics on the sample (60) companies, providing data related to firm size, country of origin, and listing status.

The sample is equally distributed between the selected type of firms, i.e. tanker shipping companies and ocean carriers. Technical data related to the capacity of each fleet are used to assess the firm size of the sample companies. In particular, the size of tanker shipping companies is measured in mln. DWT (i.e. deadweight tonnage), whereas the fleet of ocean carriers is expressed in TEUs (20-foot equivalent units). The average size of firms is 7.57 mln. DWT and 624,154 TEUs for tanker shipping companies and ocean carriers, respectively. The firm size variable has been normalized and then firms have been grouped in small, medium, and large according to their relative dimension respect to peers.

Asia emerges as the dominant geographic area (50 percent); Europe (18 percent) and Middle East (9 percent) are well represented, too. Conversely, the presence of North American firms is rather limited (3 percent). The spatial dimensions related to the sample are consistent with trends experienced by these industries; nevertheless, this profile is supposed to influence research outcomes, being cultural dimensions significant predictors of the attitude toward the adoption of SM marketing tools.

We also investigate the listing status of the sample companies, as this is expected to affect their disposition toward external communication and, specifically, institutional communication (Williams and Pei, 1999). In this vein, 55 percent of the sample companies are listed on an International Stock Exchange, such as New York SE (seven companies); Tokyo SE (five) and Hong Kong (four).

Variable	No. of company	%	Variable	No. of company	%
Business			*Listing status*		
Tanker shipping companies	30	50.0	Not listed	27	45.0
Ocean carriers	30	50.0	Listed	33	55.0
Size (in terms of fleet's capacity)			New York SE	7	11.7
Large	13	21.7	Tokyo SE	5	8.3
Medium	9	15.0	Hong Kong SE	4	6.7
Small	38	63.3	Copenhagen SE	3	5.0
Companies' country of origin (geographic area)			London SE	3	5.0
Asia	30	50.0	Shanghai SE/Hong Kong SE	3	5.0
Europe	18	30.0	Taiwan SE	3	5.0
Middle East	9	15.0	Others	5	8.3
North America	3	5.0			
Source: Authors' elaboration					

Table III.
Sample companies: descriptive statistics

3.3 Data gathering

To investigate the SMM practices in sample B2B service companies, we scrutinize their approach toward the most common SNSs, namely Facebook, Twitter and LinkedIn (Michaelidou *et al.*, 2011; Negruşa *et al.*, 2014; Siamagka *et al.*, 2015; Bernard, 2016; Guesalaga, 2016).

All the collected material, e.g. posts, tweets, etc., has been scrutinized in its native language. Corporate blogs have not been included in the analysis, given their high heterogeneity and fragmentation. Other popular networking sites, such as Instagram, have been excluded as they mostly rely on images and pictures as key contents. Three researchers have been involved in the empirical investigation, enabling a systematic cross-check activity. For ensuring a high degree of reliability, consistent with Trochim (1989) and Yin (2003), we adopted an ad-hoc protocol for collecting information and we developed a database related to the adoption of SMM tools in the sample firms.

Facebook is the largest and most popular SM site, and it grounds on the widely used one-click social plugin, "Like" (Swani *et al.*, 2014). This SNS has over one billion registered users with more than 60 percent of them connecting to it every day (www.facebook.com). The Facebook Likes plugin is the most diffused one-click social plugin in the SM space: nowadays, in fact, almost every website has integrated "Facebook" functionalities in their interface. In this vein, B2B service companies may benefits when users like the content shared by companies, because by this way customer-customer and firm-customer interactions are encouraged. In addition, the dynamics of this SNS increase the popularity of companies' posts, allow users to provide their personal endorsements (Godes and Mayzlin, 2009), thus supporting brand engagement. Facebook fans can engage with company's wall posts or messages, by liking, commenting or sharing (Swani *et al.*, 2017), thus affecting WoM (De Vries *et al.*, 2012).

For each sample company we investigated all relevant information related to their usage of Facebook. In particular, we gathered data concerning: the adoption of the tool; the date of the initial registration; the number of followers; the number of likes to the corporate page; the total amount of uploaded photos and videos; the number of posts created in the last year. To assess how effectively and frequently these companies communicate on Facebook, we also gathered data concerning the last month available (June 1, 2017-June 30, 2017), by scrutinizing the total number of posts, likes, shares, and comments.

Twitter, i.e. a successful SNS launched in 2007, is a free service that allows people to communicate in real time with groups of friends using a number of devices, including cell phones. Twitter is a form of group instant messaging, which permits to generate "real-time" (positive or negative) WOM (Huotari *et al.*, 2015; Swani *et al.*, 2013). Thanks to Twitter platform, registered users can send tweets, which may generate instant feedback. Accordingly for each sample company, we collect several data concerning the use of this platform, including: the number of followers and following users; the year of initial subscription; the total amount of tweets posted since the initial registration and in the last month; the total number of likes obtained; the number of shares, photos and videos.

LinkedIn, finally, is a social network for businesspeople, which enjoyed a rush of popularity in late 2007. Members can search other contact and connect to known business contacts as well as use those people's connections to find other members and increase their network (Keinänen and Kuivalainen, 2015). In this study, for each B2B service company in the sample, we investigate: the adoption/non-adoption of the too; the number of followers; the amount of company's employees with a LinkedIn page.

4. Preliminary findings

Our investigation focuses on three very common digital platforms, i.e. Facebook (Table IV), Twitter, and LinkedIn (Table V). Additional data are reported in Tables AII and AIII.

	Yes	%	No	%	Followers (No.)	Likes to corporate page	Uploaded photos	Uploaded videos	Posts (last year)	Posts (last month)	Likes (last month)	Shares (last month)	Comments (last month)	Year of initial subscription	Post per day (last year)	Post per day (last month)
Overall sample	48	80.0	12	20.0	35,200.8	34,838.7	165.7	7.1	29.9	3.9	2,763.2	168.9	27.3	2012.9	0.08	0.13
Business																
Ocean carriers	26	86.7	4	13.3	55,820.6	55,165.5	197.5	7.0	34.5	4.2	2,029.6	249.8	35.2	2013.2	0.09	0.14
Tanker ship. comp	22	73.3	8	26.7	9,671.6	9,672.1	126.4	7.2	24.2	3.5	3,671.5	68.8	17.7	2012.5	0.07	0.12
Size																
Large	10	76.9	3	23.1	138,101.1	136,389.1	442.2	20.8	72.6	12.2	10,617.5	581.5	101.7	2012.0	0.20	0.41
Medium	8	88.9	1	11.1	8,732.6	8,775.0	85.8	2.8	23.8	2.5	2,520.1	240.5	28.0	2013.5	0.07	0.08
Small	30	78.9	8	21.1	7,019.5	7,011.2	92.5	3.5	16.9	1.4	121.9	6.9	1.5	2013.0	0.05	0.05
Geographic area																
Asia	21	70.0	9	30.0	6,039.0	6,033.9	121.1	3.9	8.6	0.7	25.0	2.0	0.5	2012.8	0.02	0.02
Europe	15	83.3	3	16.7	92,302.5	91,174.4	218.5	8.5	50.5	6.0	3,549.1	434.0	59.4	2013.1	0.14	0.20
Middle East	9	100.0	0	0.0	5,382.9	5,368.8	116.4	6.3	39.4	6.4	859.2	23.1	7.3	2012.3	0.11	0.21
North America	3	100.0	0	0.0	47,317.5	47,385.5	460.5	32.5	57.5	11.0	34,187.5	589.0	159.0	2014.5	0.16	0.37
Listing status																
Not listed	21	77.8	6	22.2	11,647.2	11,605.0	121.2	4.4	34.4	4.6	1,261.8	120.4	20.2	2012.7	0.09	0.15
Listed	27	81.8	6	18.2	54,224.9	53,604.3	201.7	9.2	26.3	3.3	3,975.9	208.1	33.1	2013.0	0.07	0.11

Source: Authors' elaboration

Table IV.
The usage of Facebook in the sample B2B service companies

Social media marketing

	Yes	%	No	%	Twitter Followers (No.)	Following (No.)	Tweets (total)	Tweet (last month)	Likes	Shares	Photos and videos	Year of initial subscrip.	Average tweet per day (last year)	Average tweet per day (last month)	LinkedIn Yes	%	No	%	Followers	Employees
Overall sample	20	33.3	40	66.7	10,543.0	115.2	918.3	14.6	325.9	203.5	242.2	2012.7	2.65	0.44	56	93.3	4	6.7	16,833.5	1,335.5
Business																				
Ocean carriers	11	36.7	19	63.3	14,400.7	141.3	1,159.8	13.0	423.4	257.0	177.4	2013.4	3.50	0.43	26	86.7	4	13.3	26,729.5	2,164.3
Tanker ship. comp	9	30.0	21	70.0	5,828.0	79.3	623.1	17.0	200.6	119.4	384.8	2011.9	1.71	0.44	30	100.0	0	0.0	7,961.2	592.4
Size																				
Large	7	53.8	6	46.2	27,718.7	236.1	1,602.3	25.8	575.3	543.7	664.8	2010.8	5.12	0.86	13	100.0	0	0.0	42,807.5	3,388.8
Medium	3	33.3	6	66.7	2,953.7	108.0	351.0	24.7	290.0	128.7	61.7	2011.0	0.96	0.82	9	100.0	0	0.0	11,372.4	830.0
Small	10	26.3	28	73.7	796.8	23.4	609.7	2.5	127.6	1.7	45.8	2014.3	1.67	0.07	34	89.5	4	10.5	8,090.6	664.5
Geographic area																				
Asia	9	30.0	21	70.0	818.7	34.3	149.9	3.1	173.0	7.9	11.0	2014.2	0.41	0.08	26	86.7	4	13.3	5,922.1	644.2
Europe	7	38.9%	11	61.1%	21,837.3	213.6	1,756.0	21.0	542.3	414.4	325.3	2011.2	5.61	0.70	18	100.0%	0	0.0%	33,215.7	2,590.3
Middle East	3	33.3	6	66.7	15,444.3	62.7	534.3	26.7	128.5	227.7	280.7	2011.7	1.46	0.89	9	100.0	0	0.0	10,667.7	686.7
North America	1	33.3	2	66.7	4,298.0	231.0	3,122.0	21.0	124.0	24.0	1,015.0	2011.0	8.55	0.70	3	100.0	0	0.0	38,987.5	1,949.5
Listing status																				
Not listed	9	33.3	18	66.7	7,094.4	124.8	1,010.9	17.1	173.7	110.3	187.4	2012.9	3.12	0.50	24	88.9	3	11.1	17,553.3	1,314.8
Listed	11	33.3	22	66.7	13,364.5	108.2	842.5	12.9	444.3	278.1	297.0	2012.5	2.31	0.39	32	97.0	1	3.0	16,276.2	1,351.5

Source: Authors' elaboration

Table V.
The usage of Twitter and LinkedIn in sample B2B service companies

As regards the year of initial subscription, the first Twitter account dates back to 2010, while the first Facebook account goes back to 2012. Maybe early adopters operating in these industries have initially appreciated most the easy way of managing conversations on Twitter (very short messages, more "informational" than emotional), while the majority of them have entered on Facebook only at a later stage of SM diffusion.

The outcomes show, indeed, that LinkedIn is the most used tool, with a 93.3 percent of adoption rate, followed by Facebook (80 percent), whereas only a small group of firms uses Twitter (33.3 percent). In terms of adoption rate, the core business does not affect much the decision of the firm to join a SM tool. Conversely, firm size emerges as a predictor of Twitter's adoption: big companies unveil a higher attitude to subscribe it. Finally, the country of origin is not a strong influential factor of the adoption rate. Nonetheless, Asian firms clearly show a lower attitude to join SM tools such as Facebook (70 percent) and LinkedIn (86.7 percent), probably also due to governmental web restrictions imposed in China.

As regards the broadness of the relational network, Facebook is the tool enabling firms to activate the highest number of followers (over 35,000, on average). LinkedIn accounts show, on average, almost 17,000 followers, whereas on Twitter the activated network is slightly smaller (10,500 followers).

External dimensions such as the core business, the firm size, the geographic area of origin, etc., seem to affect network wideness. Ocean carriers, dealing with a highly fragmented and geographically outstretched plethora of customers/stakeholders, present a superior number of followers than tanker shipping companies (5.8x on Facebook, 2.5x on Twitter and 3.4x on LinkedIn). Firm size, also, discriminates the capacity of firms to build relational networks. Bigger firms create networks larger than small firms do (19.7x on Facebook, 34.8x on Twitter and 5.3x on LinkedIn): higher brand awareness is therefore supposed to stimulate higher responsiveness from SM users. Looking at geographical dimensions, Asian firms confirm to be far less active on SM respect to European and North American firms. This is particularly evident on Facebook, where European and North American enterprises have 15x and 7.9x of followers, respectively. Unsurprisingly, listed firms build on average broader relational networks than unlisted companies (4.7x on Facebook).

Finally, we analyzed the format of the contents disclosed by sample firms, observing a quite limited use of photos and videos: in the sample industries, informational contents seems more appropriate for activating a dialogue with stakeholders and communication still appear formulated on very traditional manner.

The frequency of publication is quite low: on average, one post every two weeks on Facebook. More intense the publication of tweets: the average tweet per day over the last year has been 2.65 (referred to the overall sample) and this practice is even more intense in ocean carriers (up to 3.50). Similarly, the activity on Twitter is more accentuate in large firms (5.12), as well as in North American (8.55) and European firms (5.61). As regards the listing status, it is interesting to observe that non-listed firms seem to be more active on this SM tool.

The "richness" of conversation on Twitter is higher: on average, a larger number of videos and photos are uploaded (242.2 vs 172.8 on Facebook) and tanker shipping companies seem to be more "creative" than ocean carriers. Actually, most of the photos uploaded on Twitter accounts show some crewmembers and/or scenes from official meetings, thus confirming the importance of using this SM to stimulate conversations and dialogue between employees or assuring external stakeholders about the high quality of firms' human resources.

By scrutinizing the behavior of the sample firms in SM activities, three major clusters emerge (see Tables AII and AIII). A group of pioneering firms paved the way in the utilization of SM for experiencing innovative forms of dialogue with stakeholders. Companies like Maersk Line, Teekay Corp., NSC of S.A. Bahri, and CMA-CGM Group not only preceded their competitors in establishing such relational platforms but also created

a broad network of followers characterized by an intense digital dialogue (e.g. posts, tweets, likes, shares, etc.). In the second cluster, we grouped some followers, i.e. firms that, at the very beginning of the phenomenon, were probably not fully convinced of the economic benefits of SM and waited some time before deciding to introduce them in their marketing practices. Afterwards, they decided to utilize some SM tools, but without an underlying convincing strategy for communication and CRM activities. Most of these firms, like for instance Minerva Marine, Yang Ming Marine Transport and PIL, after an initial phase of temporary success in digital activity, progressively reduced their commitment in SM dialogue.

The last group of players, the skeptics, is strongly adverse to the use of SM. Some of them (e.g. SICT) are not even registered in any SM tool. This cluster is composed by firms with a relatively narrow portfolio of clients, which can be still managed using traditional forms of selling and customer care.

Preliminary findings suggest that companies operating in conservative B2B services pursue different strategic approaches toward SMM and develop ad hoc communication tactics. Nonetheless, to be successful in managing SM tools, a high degree of commitment and a clear vision concerning the role of SM within communication and marketing strategy is necessary. Isomorphic behaviors, which do not ground on a clear marketing and communication plan, trigger companies toward unsuccessful experiences.

5. Research and managerial implications

The study explores the adoption of SMM practices by B2B service firms operating in conservative industries. The aim of the study is threefold: to review extant literature on SMM in B2B service contexts, to categorize potential benefits related to SM tools by B2B service firms operating in conservative industries, and to empirically investigate their current adoption.

For this purpose, we performed an ad-hoc systematic literature review, developed a tailor-made conceptual framework on SMM benefits, and realized an empirical exploratory study in B2B conservative businesses. The findings of the study provide a number of theoretical and practical insights.

As concerns research implications, first the systematic literature review performed demonstrates that some literature gaps persist. In this perspective, so far only a few studies have investigated the advantages related to the adoption of SMM tools in B2B services.

Moreover, prior contributions have predominantly scrutinized high-tech or innovative sectors, whereas conservative industries are still under researched. This evidence raises some concerns about the generalizability of current findings with regard to those traditional B2B services, where SMM capabilities are not widespread and cultural barriers toward digital innovation persists. In this regard the manuscript, by providing an overarching conceptual framework on the potential benefits originating from SM marketing tools in B2B conservative service industry, paves the way for stimulating the academic debate on commonalities and differences among firms operating in various business contexts. In addition, the outcomes of the literature review suggest further research patterns for future investigations. For example, as most contributions examine SM marketing strategies pursued by companies from Anglo-Saxon countries, a number of geographic areas are still underexplored (e.g. Europe, Middle East, and Asia). Hence, scholars are encouraged to adopt both multi-regional and cross-cultural perspective when addressing this topic.

Looking at the temporal coverage, most of prior contributions focus on a limited timeframe. Therefore, future studies introducing a longitudinal perspective in their theoretical framework should provide additional acumen concerning SM marketing tactics developed by B2B service companies.

As empirical investigations predominantly address a specific SM tool, neglecting to assess the overall SMM strategy pursued by firms, the academic debate will greatly benefit from the analysis of the SM integrated communication strategies of B2B firms.

Our empirical investigation suggests that in service industries characterized by a multiple stakeholder pressure due to their polluting or energy intensive nature, such as public utilities, shipping and transport, etc., firms have started to adopt SMM tools not only for managing the relations with customers but also for interacting with other salient stakeholder categories. In this vein, scholars are expected to embed SMM constructs within the stakeholder relations management theoretical framework.

The paper also brings useful managerial implications. Our conceptual framework suggests that SM adoption can affect the entire marketing process of B2B service firms operating in conservative industries as well as it supports firms dialogue with various communication targets (i.e. customer, employees as well as supply chain and business community). For example, by participating in LinkedIn groups, companies may foster the understanding of their customer, whereas posting news in Facebook or Twitter enables them to activate alternative channels for approaching the market. SM tools unveil undoubted potential in discovering needs, presenting value, closing sales, and providing post-sale service.

In addition, the empirical investigation demonstrates that, for this type of firms, SMM constitutes a relevant tool for internal marketing, enabling employee engagement and effective talent scouting strategies. This may explain why sample firms show a preference for LinkedIn, respect to other SM tools (e.g. Twitter) as its format and functionalities are more suitable for achieving the aforementioned objective. In this perspective, it is worth to note that in February 2018 LinkedIn awarded a special prize to Saipem, i.e. a world leader in drilling services and in the oil and gas market, for being the first Italian company to surpass the threshold of 500,000 followers on the American social network.

Finally, preliminary empirical findings also suggest that companies operating in conservative B2B services pursue heterogeneous strategic and tactic approaches toward SMM. Nonetheless, to develop successful SMM strategies, a high degree of commitment and a clear vision concerning the role of SMM within the company is strongly recommended. Isomorphic behaviors, which do not ground on a clear marketing and communication plan, in fact, trigger companies toward unsuccessful experiences with SM tools. In this vein, marketing managers are suggested to build ad-hoc teams and define a dedicated financial budget for developing SMM tools. In fact, an unstructured adoption of SM may cause unsatisfactory results and even some risks for the firm. Among the most common threats recognized by extant literature (Agnihotri *et al.*, 2012; Lacoste, 2016), we remind: the potential loss of control on customer needs' information by the salesforce, and the partial shift of the bargaining power related to the access to information from the seller to the buyer.

6. Limitations and conclusion

This manuscript investigates the adoption and use of SM tools by B2B service companies operating in conservative businesses. In particular, the paper aims at reviewing extant literature on SMM in B2B service contexts (RO1), scrutinizing and categorizing potential benefits which originate from the adoption of SM tools by B2B service firms operating in conservative industries (RO2), and empirically analyzing their current use of SMM tools (RO3).

As concerns RO1, the findings suggest that although academic contributions related to B2C businesses outnumber studies dedicated to B2B companies, appreciable efforts have been recently done in this direction.

Current studies have analyzed the role of SM marketing tools: supporting innovation activities and co-creation in B2B contexts; developing supply chain relations; fostering positive WoM from customers. Antecedents of SM usage and barriers for SM adoption

constitute further valuable fields of investigation until so far, whereas conversations between firms and customers and interactions among customers are still underexplored.

Nonetheless, a gap in extant literature on SMM in B2B services remains. Up to now, only few studies have investigated the advantages related to the adoption of SMM tools in B2B services.

Consistent with RO2, we grouped benefits stemming from the adoption of SMM, according to the main target of each SMM activity (i.e. customer, employees as well as supply chain and business community). In addition, we disarticulated the group of benefits related to customers, along with each phase of the marketing process. Our conceptual framework suggests that SM can affect the entire marketing process of B2B service firms, even if operating in conservative industries.

Finally, as regards RO3, preliminary findings suggest that companies operating in conservative B2B services pursue heterogeneous strategic and tactic approaches toward SMM. In particular, we identified three main clusters of companies: pioneering firms, which paved the way in the adoption of SMM tools for developing innovative forms of dialogue with stakeholders; followers, which have recognized the usefulness of SMM strategies with a certain delay and are now trying to bridge the gap with competitors; and sceptical firms, which prefer to rely on traditional tools for interacting with customers and other stakeholders.

Despite the contribution provided, this study contains some inherent limitations. First, the paper investigates only two B2B service industries; therefore, results might suffer some bias due to sample firms' characteristics. Future academic works are encouraged to explore other service sectors for validating present findings.

Second, the outcomes provide a picture of SMM practices of the firms operating in conservative industries, by presenting some descriptive statistics. Basically, we investigated the adoption rate of the most diffused SM tools, the broadness of the digital networks of stakeholders (number of followers), the intensity of the communication activity (number of posts, photos, videos) and the activated reactions (number of likes, comments and shares). Although findings allow appreciating the attitude of firms toward SMM, they do not provide evidence on the contents and topics disclosed and discussed online. Hence, future studies could bring additional empirical support by performing a content analysis on the posts and documents disclosed on SM, thus allowing a more in-depth analysis on the nature and scope of the activities carried out on SM by the most active firms in conservative B2B services.

Third, the present contribution focuses on conservative industries. Thus, it would be worth to compare them with more dynamic service industries (e.g. ICT, creative industries, life science, etc.), for identifying which business-related factors affect more intensely firms in SM adoption. Relatedly, scholars are suggested to investigate in which business contexts SM activity does contribute more to the achievement of satisfactory business performance.

Finally, future research dealing with SMM in service industries is encouraged to take into account the influential role played by managerial culture and corporate organizational profiles. In this perspective, studies should include in the analysis of managerial insights, some specificities that might depends upon either the country of origin of firms (i.e. "cultural clusters"; see Gupta *et al.*, 2002) or corporate governance settings, i.e., ownership patterns and governance mechanisms. As they might have an impact on the attitude of firms in SMM, these factors deserve attention by both scholars and practitioners.

References

Agnihotri, R., Dingus, R., Hu, M.Y. and Krush, M.T. (2016), "Social media: influencing customer satisfaction in B2B sales", *Industrial Marketing Management*, Vol. 53, February, pp. 172-180.

Agnihotri, R., Kothandaraman, P., Kashyap, R. and Singh, R. (2012), "Bringing 'social' into sales: the impact of salespeople's social media use on service behaviors and value creation", *Journal of Personal Selling & Sales Management*, Vol. 32 No. 3, pp. 333-348.

Alalwan, A.A., Rana, N.P., Dwivedi, Y.K. and Algharabat, R. (2017), "Social media in marketing: a review and analysis of the existing literature", *Telematics and Informatics*, Vol. 34 No. 7, pp. 1177-1190.

Ananda, A.S., Hernández-García, Á. and Lamberti, L. (2016), "N-REL: a comprehensive framework of social media marketing strategic actions for marketing organizations", *Journal of Innovation & Knowledge*, Vol. 1 No. 3, pp. 170-180.

Bernard, M. (2016), "The impact of social media on the B2B CMO", *Journal of Business & Industrial Marketing*, Vol. 31 No. 8, pp. 955-960.

Brink, T. (2017), "B2B SME management of antecedents to the application of social media", *Industrial Marketing Management*, Vol. 64, July, pp. 57-65.

Bruhn, M., Schnebelen, S. and Schäfer, D. (2014), "Antecedents and consequences of the quality of e-customer-to-customer interactions in B2B brand communities", *Industrial Marketing Management*, Vol. 43 No. 1, pp. 164-176.

De Vries, L., Gensler, S. and Leeflang, P.S. (2012), "Popularity of brand posts on brand fan pages: an investigation of the effects of social media marketing", *Journal of Interactive Marketing*, Vol. 26 No. 2, pp. 83-91.

Felix, R., Rauschnabel, P.A. and Hinsch, C. (2017), "Elements of strategic social media marketing: a holistic framework", *Journal of Business Research*, Vol. 70, January, pp. 118-126.

Ford, D., Gadde, L.E., Håkansson, H., Lundgren, A., Snehota, I., Turnbull, P. and Wilson, D. (1998), *Managing Business Relationships*, John Wiley & Sons, Chichester.

Gambetti, R.C. and Graffigna, G. (2010), "The concept of engagement", *International Journal of Market Research*, Vol. 52 No. 6, pp. 801-826.

Galvagno, M. and Dalli, D. (2014), "Theory of value co-creation: a systematic literature review", *Managing Service Quality*, Vol. 24 No. 6, pp. 643-683.

Godes, D. and Mayzlin, D. (2009), "Firm-created word-of-mouth communication: evidence from a field test", *Marketing Science*, Vol. 28 No. 4, pp. 721-739.

Guesalaga, R. (2016), "The use of social media in sales: individual and organizational antecedents, and the role of customer engagement in social media", *Industrial Marketing Management*, Vol. 54, April, pp. 71-79.

Gupta, V., Hanges, P.J. and Dorfman, P. (2002), "Cultural clusters: methodology and findings", *Journal of World Business*, Vol. 37 No. 1, pp. 11-15.

Holliman, G. and Rowley, J. (2014), "Business to business digital content marketing: marketers' perceptions of best practice", *Journal of Research in Interactive Marketing*, Vol. 8 No. 4, pp. 269-293.

Homburg, C., Klarmann, M. and Schmitt, J. (2010), "Brand awareness in business markets: when is it related to firm performance?", *International Journal of Research in Marketing*, Vol. 27 No. 3, pp. 201-212.

Huotari, L., Ulkuniemi, P., Saraniemi, S. and Mäläskä, M. (2015), "Analysis of content creation in social media by B2B companies", *Journal of Business & Industrial Marketing*, Vol. 30 No. 6, pp. 761-770.

Järvinen, J. and Taiminen, H. (2016), "Harnessing marketing automation for B2B content marketing", *Industrial Marketing Management*, Vol. 54, pp. 164-175.

Johnston, R. and Clark, G. (2012), *Service Operations Management*, Prentice Hall, Harlow.

Jussila, J.J., Kärkkäinen, H. and Aramo-Immonen, H. (2014), "Social media utilization in business-to-business relationships of technology industry firms", *Computers in Human Behavior*, Vol. 30, January, pp. 606-613.

Jussila, J.J., Kärkkäinen, H. and Leino, M. (2011), "Benefits of social media in business-to-business customer interface in innovation", *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, ACM*, pp. 167-174.

Kannan, N. and Thangavel, N. (2007), "Future of property and casualty insurance", *International Business Management*, Vol. 1 No. 4, pp. 83-87.

Kaplan, A.M. and Haenlein, M. (2010), "Users of the world, unite! The challenges and opportunities of social media", *Business Horizons*, Vol. 53 No. 1, pp. 59-68.

Karjaluoto, H., Mustonen, N. and Ulkuniemi, P. (2015), "The role of digital channels in industrial marketing communications", *Journal of Business & Industrial Marketing*, Vol. 30 No. 6, pp. 703-710.

Kärkkäinen, H., Jussila, J. and Väisänen, J. (2010), "Social media use and potential in business-to-business companies' innovation", *Proceedings of the 14th international Academic MindTrek Conference: Envisioning Future Media Environments, ACM*, pp. 228-236.

Keegan, A. and Turner, J.R. (2001), "Quantity versus quality in project-based learning practices", *Management learning*, Vol. 32 No. 1, pp. 77-98.

Keinänen, H. and Kuivalainen, O. (2015), "Antecedents of social media B2B use in industrial marketing context: customers' view", *Journal of Business & Industrial Marketing*, Vol. 30 No. 6, pp. 711-722.

Kotler, P. and Pfoertsch, W. (2007), "Being known or being one of many: the need for brand management for business-to-business (B2B) companies", *Journal of Business & Industrial Marketing*, Vol. 22 No. 6, pp. 357-362.

Lacka, E. and Chong, A. (2016), "Usability perspective on social media sites' adoption in the B2B context", *Industrial Marketing Management*, Vol. 54, April, pp. 80-91.

Lacoste, S. (2016), "Perspectives on social media ant its use by key account managers", *Industrial Marketing Management*, Vol. 54, April, pp. 33-43.

Leeflang, P.S., Verhoef, P.C., Dahlström, P. and Freundt, T. (2014), "Challenges and solutions for marketing in a digital era", *European Management Journal*, Vol. 32 No. 1, pp. 1-12.

Leek, S., Canning, L. and Houghton, D. (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*, Vol. 54, April, pp. 25-32.

Lipiäinen, H.S.M. and Karjaluoto, H. (2015), "Industrial branding in the digital age", *Journal of Business & Industrial Marketing*, Vol. 30 No. 6, pp. 733-741.

Lusch, R.F. and Vargo, S.L. (Eds) (2006), "Service-dominant logic as a foundation for a general theory", *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, Sharpe, Armonk, NY, pp. 406-420.

Mäläskä, M., Saraniemi, S. and Tähtinen, J. (2011), "Network actors' participation in B2B SME branding", *Industrial Marketing Management*, Vol. 40 No. 7, pp. 1144-1152.

Marshall, G.W., Moncrief, W.C., Rudd, J.M. and Lee, N. (2012), "Revolution in sales: the impact of social media and related technology on the selling environment", *Journal of Personal Selling & Sales Management*, Vol. 32 No. 3, pp. 349-363.

Mehmet, M.I. and Clarke, R.J. (2016), "B2B social media semantics: analysing multimodal online meanings in marketing conversations", *Industrial Marketing Management*, Vol. 54, pp. 92-106.

Michaelidou, N., Siamagka, N.T. and Christodoulides, G. (2011), "Usage, barriers and measurement of social media marketing: an exploratory investigation of small and medium B2B brands", *Industrial Marketing Management*, Vol. 40 No. 7, pp. 1153-1159.

Mudambi, S. (2002), "Branding importance in business-to-business markets: three buyer clusters", *Industrial Marketing Management*, Vol. 31 No. 6, pp. 525-533.

Negruşa, A.L., Rus, R.V. and Sofică, A. (2014), "Innovative tools used by business networks and clusters in communication", *Procedia-Social and Behavioral Sciences*, Vol. 148, August, pp. 588-595.

Prahalad, C.K. and Ramaswamy, V. (2004), "Co-creation experiences: the next practice in value creation", *Journal of Interactive Marketing*, Vol. 18 No. 3, pp. 5-14.

Rooderkerk, R.P. and Pauwels, K.H. (2016), "No comment?! The drivers of reactions to online posts in professional groups", *Journal of Interactive Marketing*, Vol. 35, August, pp. 1-15.

Royle, J. and Laing, A. (2014), "The digital marketing skills gap: developing a digital marketer model for the communication industries", *International Journal of Information Management*, Vol. 34 No. 2, pp. 65-73.

Shaw, N.E., Burgess, T.F., De Mattos, C. and Stec, L.Z. (2005), "Supply chain agility: the influence of industry culture on asset capabilities within capital intensive industries", *International Journal of Production Research*, Vol. 43 No. 16, pp. 3497-3516.

Siamagka, N.T., Christodoulides, G., Michaelidou, N. and Valvi, A. (2015), "Determinants of social media adoption by B2B organizations", *Industrial Marketing Management*, Vol. 51, November, pp. 89-99.

Steyn, P., Salehi-Sangari, E., Pitt, L., Parent, M. and Berthon, P. (2010), "The social media release as a public relations tool: intentions to use among B2B bloggers", *Public Relations Review*, Vol. 36 No. 1, pp. 87-89.

Swani, K., Brown, B.P. and Milne, G.R. (2014), "Should tweets differ for B2B and B2C? An analysis of Fortune 500 companies' Twitter communications", *Industrial Marketing Management*, Vol. 43 No. 5, pp. 873-881.

Swani, K., Milne, G. and Brown, B.P. (2013), "Spreading the word through likes on Facebook: evaluating the message strategy effectiveness of Fortune 500 companies", *Journal of Research in Interactive Marketing*, Vol. 7 No. 4, pp. 269-294.

Swani, K., Milne, G.R., Brown, B.P., Assaf, A.G. and Donthu, N. (2017), "What messages to post? Evaluating the popularity of social media communications in business versus consumer markets", *Industrial Marketing Management*, Vol. 62, April, pp. 77-87.

Trochim, W. (1989), "Outcome pattern matching and program theory", *Evaluation and Program Planning*, Vol. 12 No. 4, pp. 355-366.

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. 5, pp. 90-102.

Tuten, T.L. and Solomon, M.R. (2013), *Social Media Marketing*, Pearson, Higher Education.

Vescovi, T. (2000), "Internet communication: the Italian SME case", *Corporate Communications: An International Journal*, Vol. 5 No. 2, pp. 107-112.

Wang, W.Y., Pauleen, D.J. and Zhang, T. (2016), "How social media applications affect B2B communication and improve business performance in SMEs", *Industrial Marketing Management*, Vol. 54, April, pp. 4-14.

Wathieu, L., Brenner, L., Carmon, Z., Chattopadhyay, A., Wertenbroch, K., Drolet, A. and Wu, G. (2002), "Consumer control and empowerment: a primer", *Marketing Letters*, Vol. 13 No. 3, pp. 297-305.

Williams, S.M. and Pei, C.A.H.W. (1999), "Corporate social disclosures by listed companies on their web sites: an international comparison", *The International Journal of Accounting*, Vol. 34 No. 3, pp. 389-419.

Yin, R.K. (2003), *Case Study Research: Design and Methods*, 3rd ed., Sage Publication, Thousand Oaks, CA.

Zablah, A.R., Brown, B.P. and Donthu, N. (2010), "The relative importance of brands in modified rebuy purchase situations", *International Journal of Research in Marketing*, Vol. 27 No. 3, pp. 248-260.

Appendix

ID	Company's name	Capacity[a]	Capacity share (top-30) (%)	Country of origin	Geographic area	Age	Listed/not
Tanker							
T_1	NYK	12.5	5.51	Japan	Asia	1875	Tokyo SE
T_2	Frontline	12.47	5.49	Oslo	Europe	1985	New York SE
T_3	Maersk Tankers	12.47	5.49	Denmark	Europe	1928	Copenhagen SE
T_4	SCF group	11.45	5.04	Russia	Asia	1988	London SE
T_5	Teekay Corp	11.4	5.02	Bahamas-Canada	North America	1973	New York SE
T_6	AET tanker (MISC Berhad)	11.39	5.02	Singapore	Asia	1968	Bursa Malaysia SE
T_7	NITC (National Iranian Tanker Company)	11.39	5.02	Iran	Middle East	2009	None
T_8	NSC of SA Bahri	11.04	4.86	Saudi Arabia	Middle East	1978	None
T_9	MTM	10.15	4.47	Singapore	Asia	1980	None
T_10	Dynacom Tankers	9.97	4.39	Greece	Europe	1991	None
T_11	OSG (Overseas Shipping Group)	9	3.96	USA-Manila	North America	1949	New York SE
T_12	China shipping development	8.51	3.75	China	Asia	1997	Shanghai SE/ Hong Kong SE
T_13	MOL (Mitsui O.S.K. Lines)	8.22	3.62	Japanese	Asia	1884	Tokyo SE
T_14	Ocean Tankers	7.72	3.40	Singapore	Asia	1978	Cyprus/Athens SE
T_15	Euronav	7.59	3.34	Belgium	Europe	1995	New York SE
T_16	Torm	6.73	2.96	Denmark	Europe	1889	Copenhagen SE
T_17	Oman shipping	6.32	2.78	Oman	Middle East	2003	None
T_18	Thenamaris	5.87	2.59	Greece	Europe	1970	None
T_19	Dalian Ocean Shipping (COSCO Group)	5.82	2.56	China	Asia	1978	Shanghai SE/ Hong Kong SE
T_20	Bw Maritime	5.52	2.43	Hong Kong	Asia	1955	None
T_21	Minerva Marine	5.1	2.25	Greece	Europe	1996	None
T_22	SK shipping	4.94	2.18	South Korea	Asia	1982	None
T_23	ACM Shipping (Braemar ACM)	4.72	2.08	UK	Europe	1982	None
T_24	SCI	4.6	2.03	India	Asia	1961	Bombay SE
T_25	TEN (Tsakos Energy Navigation)	4.38	1.93	Bermuda-Greece	Europe	1993	New York SE
T_26	BP Shipping	4	1.76	UK	Europe	1915	London SE
T_27	Tanpac (Tanker Pacific Management)	3.83	1.69	Singapore	Asia	1989	None
T_28	Chevron[a]	3.52	1.55	USA	North America	1911	New York SE
T_29	KOTC – Kuwait Oil Tanker Company S.A.K	3.31	1.46	Kuwait	Middle East	1957	None
T_30	NAT – Nordic American Tankers	3.12	1.37	Bermuda-Norway	Europe	1995	New York SE
Ocean carriers							
C_1	Maersk Line	3,358,346	17.94	Denmark	Europe	1928	Copenaghen SE

Table AI.
Sample companies

(*continued*)

ID	Company's name	Capacity[a]	Capacity share (top-30) (%)	Country of origin	Geographic area	Age	Listed/not
C_2	MSC Shipping	3,056,560	16.32	Switzerland-Italy	Europe	1970	None
C_3	CMA CGM Group	2,316,751	12.37	France	Europe	1978	None
C_4	COSCO Shipping CO.	1,734,419	9.26	China	Asia	1961	Shanghai SE
C_5	Hapag-Lloyd	1,529,732	8.17	Germany	Europe	1970	Xetra SE
C_6	Evergreen Line	1,024,118	5.47	Taiwan	Asia	1968	Taiwan SE/London SE
C_7	OOCL (Orient Overseas Container Line)	686,484	3.67	Hong Kong	Asia	1969	Hong Kong SE
C_8	NYK Line	585,172	3.13	Japan	Asia	1875	Tokyo SE
C_9	Yang Ming Marine Transport	581,431	3.11	Taiwan	Asia	1972	Taiwan SE
C_10	Hamburg Sud Group	562,764	3.01	Germany	Europe	1871	None
C_11	MOL (Mitsui O.S.K. Lines)	518,185	2.77	Japan	Asia	1884	Tokyo SE
C_12	PIL (Pacific International Line)	371,833	1.99	Singapore	Asia	1967	Hong Kong SE
C_13	Hyundai M.M.	366,692	1.96	South Korea	Asia	1976	Korea SE
C_14	K-LINE	358,498	1.91	Japan	Asia	1919	Tokyo SE
C_15	Zim	340,976	1.82	Israel	Middle East	1953	Tel Aviv SE
C_16	Wan Hai Lines	225,575	1.20	Taiwan	Asia	1965	Taiwan SE
C_17	X-Press Feeders Group	143,723	0.77	Singapore	Asia	1972	None
C_18	KMTC	119,228	0.64	South Korea	Asia	1954	None
C_19	SITC	103,115	0.55	China	Asia	1991	Hong Kong SE
C_20	IRISL Group (Islamic Rep. of Iran Shipping Lines)	97,671	0.52	Iran	Middle East	1979	None
C_21	Zhonggu Logistics Corporation	94,168	0.50	China	Asia	na	None
C_22	Arkas Line/EMES	71,331	0.38	Turkey	Middle East	1996	None
C_23	SM Line Corporation (prior Hanjin Shipping)	68,083	0.36	South Korea	Asia	2016	None
C_24	Sinotrans	65,947	0.35	China	Asia	1950	Hong Kong SE
C_25	Quanzhou An Sheng Shipping	65,891	0.35	China-Singapore	Asia	2011	None
C_26	TS Lines	61,373	0.33	Hong Kong	Asia	2001	None
C_27	Simatech	58,495	0.31	UAE	Middle East	1992	None
C_28	UniFeeder	55,508	0.30	Denmark	Europe	1977	None
C_29	Emirates Shipping Lines	51,933	0.28	UAE	Middle East	2006	None
C_30	Grimaldi Lines Cargo	50,622	0.27	Italy	Europe	1947	None

Note: [a]Total capacity is expressed in DWT million for tanker shipping companies, whereas fleet of ocean carriers expressed in TEUs (20 equivalent units)

Source: Authors' elaboration

Table AI.

Social media marketing

Company's name	Facebook (1/0)	No. of corp. pages	Initial subscrip. (date)	Followers (No.)	Likes to corp. page	Uploaded photos	Uploaded videos	Posts (last year)	Posts (last month)	Likes (last month)	Shares (last month)	Comments (last month)
Tanker												
NYK	1	12	October 17, 2013	8,889	8,887	186	32	17	0	0	0	0
Frontline	0	–	–	–	–	–	–	–	–	–	–	–
Maersk Tankers	1	3	November 17, 2011	21,710	21,655	8	0	1	0	0	0	0
SCF group	0	–	–	–	–	–	–	–	–	–	–	–
Teekay Corp	1	1	May 17, 2012	88,296	88,435	919	65	113	20	68,160	1,134	314
AET tanker (MISC Berhad)	1	1	May 28, 2013	8,241	8,233	54	0	22	2	46	0	0
NITC (National Iranian Tanker Company)	1	1	March 27, 2012	5,177	5,155	39	1	0	0	0	0	0
NSC of SA Bahri	1	1	December 10, 2011	19,187	19,188	457	11	156	37	6,495	140	38
MTM	0	–	–	–	–	–	–	–	–	–	–	–
Dynacom Tankers	1	1	April 3, 2012	2,331	2,329	3	0	0	0	0	0	0
OSG (Overseas Shipping Group)	1	1	June 24, 2017	6,339	6,336	2	0	2	2	215	44	4
China shipping development	0	–	–	–	–	–	–	–	–	–	–	–
MOL (Mitsui O.S.K. Lines)	1	6	July 11, 2011	3,057	3,045	1	0	0	0	0	0	0
Ocean Tankers	1	1	June 22, 2015	1,776	1,786	427	0	10	1	5	0	0
Euronav	1	1	February 10, 2011	530	526	1	0	0	0	0	0	0
Torm	1	6	November 2, 2012	4,176	4,158	28	0	6	1	20	0	1

(continued)

Table AII.
Descriptive statistics related to Facebook

Table AII.

Company's name	Facebook (1/0)	No. of corp. pages	Initial subscrip. (date)	Followers (No.)	Likes to corp. page	Uploaded photos	Uploaded videos	Posts (last year)	Posts (last month)	Likes (last month)	Shares (last month)	Comments (last month)
Oman shipping	1	1	September 2, 2014	3,034	3,031	9	0	6	0	0	0	0
Thenamaris	1	4	October 6, 2014	4,290	4,308	119	5	84	6	1,743	84	6
Dalian Ocean Shipping (COSCO Group)	1	1	June 20, 2016	4,233	4,279	33	1	23	3	338	42	6
Bw Maritime	1	3	November 23, 2011	5,203	5,206	6	0	0	0	0	0	0
Minerva Marine	1	1	October 27, 2012	2,674	2,660	2	0	0	0	0	0	0
SK shipping	0	–	–	–	–	–	–	–	–	–	–	–
ACM Shipping (Braemar ACM)	0	–	–	–	–	–	–	–	–	–	–	–
SCI	0	–	–	–	–	–	–	–	–	–	–	–
TEN (Tsakos Energy Navigation)	0	–	–	–	–	–	–	–	–	–	–	–
BP Shipping	1	2	December 31, 2011	2,087	2,106	42	0	3	0	0	0	0
Tanpac (Tanker Pacific Management)	1	2	January 3, 2012	1,672	1,671	5	0	4	2	79	0	2
Chevron[a]	1	1	March 7, 2012	1,162,379	1,132,442	921	136	160	8	3,007	457	183
KOTC–Kuwait Oil Tanker Company S.A.K	1	1	January 24, 2011	10,161	10,079	310	36	62	0	0	0	0
NAT–Nordic American Tankers	1	1	October 18, 2015	40	41	3	0	0	0	0	0	0
Container lines												
Maersk Line	1	3	November 17, 2011	1,119,837	1,103,349	1,508	72	215	31	14,561	2,310	314

Company's name	Facebook (1/0)	No. of corp. pages	Initial subscrip. (date)	Followers (No.)	Likes to corp. page	Uploaded photos	Uploaded videos	Posts (last year)	Posts (last month)	Likes (last month)	Shares (last month)	Comments (last month)
MSC Shipping	1	2	June 9, 2015	1,354	1,357	4	0	3	0	0	0	0
CMA CGM Group	1	4	March 13, 2013	105,989	105,303	1,244	27	199	32	16,913	2,231	351
COSCO Shipping CO.	1	1	January 8, 2013	282	279	24	1	9	0	0	0	0
Hapag-Lloyd	1	3	June 1, 2015	50,667	51,039	194	21	157	16	19,921	1,880	219
Evergreen Line	1	4	March 27, 2014	3,404	3,404	18	0	14	1	2	0	0
OOCL (Orient Overseas Container Line)	1	7	November 17, 2010	3,579	3,565	52	4	18	3	37	0	2
NYK Line	1	12	October 17, 2013	8,889	8,887	186	32	17	0	0	0	0
Yang Ming Marine Transport	1	4	August 23, 2011	931	926	1,329	9	0	0	0	0	0
Hamburg Sud Group	1	1	October 6, 2016	425	433	5	0	5	0	0	0	0
MOL (Mitsui O.S.K. Lines)	1	6	July 11, 2011	3,057	3,045	1	0	0	0	0	0	0
PIL (Pacific International Line)	1	4	April 22, 2012	21,932	21,893	44	1	10	0	0	0	0
Hyundai M.M.	1	6	May 12, 2015	443	448	103	1	15	2	19	0	0
K-LINE	1	4	July 16, 2011	23,318	23,256	12	0	0	0	0	0	0
Zim	1	3	October 6, 2016	206	205	12	0	12	5	49	0	0
Wan Hai Lines	1	3	August 19, 2015	183	184	3	0	0	0	0	0	0

Social media marketing

(continued)

Table AII.

Table AII.

Company's name	Facebook (1/0)	No. of corp. pages	Initial subscrip. (date)	Followers (No.)	Likes to corp. page	Uploaded photos	Uploaded videos	Posts (last year)	Posts (last month)	Likes (last month)	Shares (last month)	Comments (last month)
X-Press Feeders Group	1	1	–	28	29	0	0	0	0	0	0	0
KMTC	1	1	February 8, 2013	83	84	3	0	0	0	0	0	0
SITC	0	–		–	–	–	–	–	–	–	–	–
IRISL Group (Islamic Rep of Iran Shipping Lines)	1	2	July 11, 2012	1,010	1,009	30	0	10	1	15	0	0
Zhonggu Logistics Corporation	0	–	–	–	–	–	–	–	–	–	–	–
Arkas Line /EMES	1	2	October 4, 2012	6,240	6,227	185	9	109	15	1,174	68	28
SM Line Corporation (prior Hanjin Shipping)	1	1	August 26, 2012	3,875	3,859	1	0	0	0	0	0	0
Sinotrans	1	11	September 9, 2015	23,745	23,745	55	1	21	0	0	0	0
Quanzhou An Sheng Shipping	0	–	–	–	–	–	–	–	–	–	–	–
TS Lines	0	–		–	–	–	–	–	–	–	–	–
Simatech	1	1	May 20, 2012	1,045	1,045	5	0	0	0	0	0	0
UniFeeder	1	1	March 3, 2013	15	15	1	0	0	0	0	0	0
Emirates Shipping Lines	1	1	November 17, 2013	2,386	2,380	1	0	0	0	0	0	0
Grimaldi Lines Cargo	1	2	October 28, 2015	68,412	68,337	116	3	84	4	79	5	0

Note: [a]Data refer to the Corporate Facebook page of the Chevron Group, which does not hold an ad-hoc page for its tanker division. Relatedly, these data have been ironed out from the analysis
Source: Authors' elaboration

Social media marketing

Company's name	Twitter (1/0)	Initial subscrip. (date)	Followers (No.)	Following (No.)	Tweets (total)	Tweet (last month)	Likes (total)	Condivision (last month)	Photos and videos	LinkedIn (0/1)	Follower	Employees
Tanker												
NYK	0	–	–	–	–	–	–	–	–	1	23,336	2,398
Frontline	0	–	–	–	–	–	–	–	–	1	1,508	258
Maersk Tankers	1	June 2009	272	10	3	3	145	118	0	1	8,129	875
SCF group	0	–	–	–	–	–	–	–	–	1	1,945	158
Teekay Corp	1	February 2011	4,298	231	3,122	21	124	24	1,015	1	59,927	3,347
AET tanker (MISC Berhad)	1	October 2011	30	73	458	–	2	–	–	1	14,097	1,525
NITC (National Iranian Tanker Company)	0	–	–	–	–	–	–	–	–	1	8,645	342
NSC of SA Bahri	1	August 2011	41,500	0	743	32	2483*	509	427	1	11,581	233
MTMaritime management Group	0	–	–	–	–	–	–	–	–	1	2,174	206
Dynacom Tankers	0	–	–	–	–	–	–	–	–	1	880	458
OSG (Overseas Shipping Group)	0	–	–	–	–	–	–	–	–	1	18,048	552
China shipping development	0	–	–	–	–	–	–	–	–	1	139	53
MOL (Mitsui O.S.K. Lines)	0	–	–	–	–	–	–	–	–	1	1,078	120
Ocean Tankers	0	–	–	–	–	–	–	–	–	1	349	158
Euronav	0	–	–	–	–	–	–	–	–	1	4,866	498
Torm	0	–	–	–	–	–	–	–	–	1	12,824	1,091
Oman shipping	1	August 2013	1,462	177	311	46	253	170	135	1	9,922	260
Thenamaris	1	July 2013	299	67	99	8	65	1	67	1	14,623	460
Dalian Ocean Shipping (COSCO Group)	0	–	–	–	–	–	–	–	–	1	71	15
Bw Maritime	1	May 2013	94	0	0	0	0	0	0	1	9,729	443
Minerva Marine	0	–	–	–	–	–	–	–	–	1	2,717	165

(*continued*)

Table AIII.
Descriptive statistics related to Twitter and LinkedIn

TQM

Table AIII.

Company's name	Twitter (1/0)	Initial subscrip. (date)	Twitter							LinkedIn (0/1)	LinkedIn	
			Followers (No.)	Following (No.)	Tweets (total)	Tweet (last month)	Likes (total)	Condivision (last month)	Photos and videos		Follower	Employees
SK shipping	0	–	–	–	–	–	–	–	–	1	16	12
ACM Shipping (Braemar ACM)	0	–	–	–	–	–	–	–	–	1	2,444	68
SCI	1	May 2015	1,126	65	323	7	811	10		1	5,566	1,785
TEN (Tsakos Energy Navigation)	0	–	–	–	–	–	–	–	–	1	724	61
BP Shipping	0	–	–	–	–	–	–	–	–	1	2,327	553
Tanpac (Tanker Pacific Management)	0	–	–	–	–	–	–	–	–	1	5,551	341
Chevron*	0	–	–	–	–	–	–	–	–	1	1,303,300	65,683
KOTC – Kuwait Oil Tanker Company S.A.K	1	January 2011	3,371	11	549	2	4	4	280	1	7,467	739
NAT – Nordic American Tankers	0	–	–	–	–	–	–	–	–	1	191	5
Container lines												
Maersk Line	1	February 2011	131,000	635	4,538	67	2,290	2,413	1,295	1	207,008	13,865
MSC Shipping	1	September 2014	32	0	0	0	0	0	0	1	93,454	9,281
CMA CGM Group	1	April 2012	16,900	704	2,352	32	891	198	587	1	123,813	11,108
COSCO Shipping CO.	1	December 2011	3,190	103	482	12	214	45	50	1	11,988	818
Hapag-Lloyd	1	November 2009	4,209	44	260	16	403	171	0	1	43,138	3,920
Evergreen Line	0	–	–	–	–	–	–	–	–	1	20,861	1,012
OOCL (Orient Overseas Container Line)	1	June 2011	2,837	11	43	0	na	0	0	1	11,403	2,568

Social media
marketing

Company's name	Twitter (1/0)	Initial subscrip. (date)	Followers (No.)	Following (No.)	Tweets (total)	Tweet (last month)	Likes (total)	Condivision (last month)	Photos and videos	LinkedIn (0/1)	LinkedIn Follower	Employees
NYK Line	1	March 2016	21	1	5	0	na	0	4	1	23,336	2,398
Yang Ming Marine Transport	0	–	–	–	–	–	–	–	–	1	811	129
Hamburg Sud Group	0	–	–	–	–	–	–	–	–	1	67,515	2,856
MOL (Mitsui O.S.K. Lines)	1	February 2017	18	17	32	3	10	0	12	1	1,078	120
PIL (Pacific International Line)	0	–	–	–	–	–	–	–	–	1	169	4
Hyundai M.M.	1	February 2017	9	0	2	0	0	0	0	1	10,953	1,262
K-LINE	0	–	–	–	–	–	–	–	–	1	127	51
Zim	0	–	–	–	–	–	–	–	–	1	12,196	1,379
Wan Hai Lines	0	–	–	–	–	–	–	–	–	1	4,769	751
X-Press Feeders Group	0	–	–	–	–	–	–	–	–	1	2,709	183
KMTC	1	July 2010	43	4	4	0	1	0	–	1	51	19
SITC	0	–	–	–	–	–	–	–	–	0	–	–
IRISL Group (Islamic Rep. of Iran Shipping Lines)	0	–	–	–	–	–	–	–	–	1	840	817
Zhonggu Logistics Corporation	0	–	–	–	–	–	–	–	–	0	–	–
Arkas Line/EMES	0	–	–	–	–	–	–	–	–	1	41,812	1,903
SM Line Corporation (prior Hanjin Shipping)	0	–	–	–	–	–	–	–	–	0	–	–
Sinotrans	0	–	–	–	–	–	–	–	–	1	1,599	167
Quanzhou An Sheng Shipping	0	–	–	–	–	–	–	–	–	0	–	–
TS Lines	0	–	–	–	–	–	–	–	–	1	69	52
Simatech	0	–	–	–	–	–	–	–	–	1	633	168
UniFeeder	1	September 2013	150	35	5,040	0	2	0	3	1	3,668	257
Emirates Shipping Lines	0	–	–	–	–	–	–	–	–	1	2,913	339
Grimaldi Lines Cargo	0	–	–	–	–	–	–	–	–	1	8,053	846

Source: Authors' elaboration

Table AIII.

TQM

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