GUEST EDITORIAL

Digital marketing and business-to-business relationships: a close look at the interface and a roadmap for the future

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Abstract

Purpose – This study aims to introduce the special issue on digital marketing and business-to-business (B2B) relationships. In general, only modest attention has been devoted to the study of digitalization in the B2B sector and even less on the importance of the perils and promises of digitalization for B2B relationships. This study's goal is to help focus scholarly attention on the implications of digitalization on B2B relationships.

Design/methodology/approach – In this conceptual paper, the authors' approach is to carefully review relevant literature, and to lay out the field of digital marketing and B2B relationships, conceptualizing it for future research.

Findings – The authors find that the following areas are critically important to understanding future trends in digital marketing and B2B relationships: coopetition, value co-creation, B2B branding, servitization, innovation networks, relationship dynamics and power and trust.

Originality/value – The intersection of digitalization and B2B relationships is an under-researched topic. With this paper and the accompanying special issues papers, the authors hope to begin to fill this critical gap.

Keywords Digital marketing, Relationship marketing, Business-to-business marketing, Digitalization

Paper type Editorial

Introduction

Digitalization is a pervasive force in the marketplace (Hofacker *et al.*, 2016). Along with (big) data analytics, digital marketing now occupies a central place in marketing research and practice. Not surprisingly, over the past couple of decades, a large body of research has examined digitalization and its implications for marketing theory. However, much of this research has focused on the implications of digitalization on business-to-consumer (B2C)

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marketing. Among the critical areas examined by scholars include online/mobile retailing (Pagani *et al.*, 2019; Shankar *et al.*, 2010), online advertising (Goldfarb and Tucker, 2011), online branding (Murphy and Scharl, 2007), online reviews (Sparks and Browning, 2011), online communities (Park *et al.*, 2018) and gamification (Hofacker *et al.*, 2016). Compared to this stream of research, much less attention has been devoted to the study of digitalization in the business-to-business (B2B) sector. Recent developments in digitalization hold considerable promise for B2B relationships (Kannan, 2017). There are also threats that need better understanding. Consequently, the purpose of this special issue is to focus scholarly attention on the implications of digitalization on B2B relationships.

Emergent domain of digital marketing *vis-à-vis* business-to-business marketing

Scholars started examining the implications of digitalization on B2B marketing in the 1990s, and research in this stream came to the fore by the turn of the century. Early research noted the implications of digitalization on fundamental relationship issues in the B2B context such as relationship evolution and trust (Pavlou, 2002) and the reversion to transactional orientation from a relational orientation (Sharma and Pillai, 2003). B2B exchanges and market places, given their potential to disrupt the prevailing market structure, attracted considerable scholarly attention during this time (Day *et al.*, 2003; Kandampully, 2003; Pillai and Sharma, 2004). Technological aspects of digital relationships such as customer relationship management in B2B e-commerce (Zeng *et al.*, 2003) and technology adoption (Pires and Aisbett, 2003) were among other topics studied.

Subsequently, a large body of research examined these and other pertinent issues such as digital branding in the B2B sector (Kuhn *et al.*, 2008; Lipiäinen and Karjaluoto, 2015). A discernible trend during this period was the broadening of the cultural context of inquiry with studies being conducted in non-US countries (Gurău, 2007). Additionally, dictated by the evolution of technology, new themes of scholarly inquiry emerged. For example, recent research has examined issues such as harnessing automation for B2B content marketing (Järvinen and Taiminen, 2016), adoption of big data technology for innovation in B2B marketing (Wright *et al.*, 2019) and determinants of social media adoption by B2B organizations (Siamagka *et al.*, 2015).

Role of digitalization in business-to-business relationships

As noted above, B2B relationships have not escaped the overwhelming transformative force of digitalization that has been upending the way markets function and the way customers behave and make sense of firms' value offerings (Confos and Davis, 2016; Kannan, 2017; Vendrell-Herrero *et al.*, 2017). Artificial intelligence, blockchain, data security/integrity, internet of things and big data analytics are just some possible digital trends that can shape how B2B relationships are understood and managed. Below we delve specifically into important research domains in B2B marketing and discuss what role digitalization and digital marketing can play in each domain. Some of these domains, such as coopetition and servitization, represent emergent themes in B2B marketing research, while others, such as relationship dynamics and power/trust concepts, have traditionally constituted fundamental research streams. Nonetheless, they are all subject to a pervasive influence of digitalization and digital marketing, and thus, have the potential to be extensively informed by research tackling the digitalization–B2B marketing interface. Figure 1 shows the important domains of B2B relationships where different aspects of digitalization and digital marketing have a strong potential to influence.

It needs to be clarified here that we use the term digital marketing and B2B relationship broadly. Thus, by former, we denote trends in digitalization, such as the emergence of blockchain, which might not yet be a marketing channel or a medium of communication, but have important implications for digital marketing. Similarly, regarding the latter, our focus is on the broader context of the B2B sector, where relationships contribute to value creation and go beyond the specific relational dynamics or relationship-specific factors.

Coopetition

Coopetition is a dynamic and paradoxical manifestation of simultaneous competition and cooperation between B2B partners (Rai, 2016; Raza-Ullah *et al.*, 2014). In the sophisticated world of B2B relationships, coopetition is a prevalent practical phenomenon and increasingly recognized research domain (Bengtsson and Kock, 2014). Because of technological advancements and the increasing connectedness of the global marketplace, firms are compelled to compete with their partners and collaborate with their competitors (Gnyawali and Park, 2009; Gnyawali and Park, 2011). As such, coopetition is virtually an inevitable component of B2B relationships and is subject to a strong influence of digitalization, given its dynamic and paradoxical nature.

Research on coopetition in B2B relationships is rapidly developing and taking a new mold in light of the recent developments in the global marketplace. For example, coopetition-based business models and organizing coopetition for innovation are influenced by digital platforms and emergent digital technologies (Ritala *et al.*, 2014; Yami and Nemeh, 2014). As new digital technologies emerge, firms find new ways to access and use information, and such developments influence both means of collaboration and competition across organizational boundaries.

Coopetition has been traditionally prompted and sustained by the geographical proximity of competitors (Rivera *et al.*, 2016). For example, industry evidence indicates that governments have been devoting significant resources to the creation of logistics clusters. Such clusters have allowed competitors to both compete and collaborate to generate wealth within a particular geographical area by facilitating the pooling of logistics capabilities (Sheffi, 2012b). Similarly, industrial clusters have facilitated interfirm networking and the pooling of various resources through co-locating (Sheffi, 2012a).

However, the co-locating aspects of such logistics and industrial clusters have also created unwanted interdependence among the participating firms (Rivera *et al.*, 2016). Firms have to devote significant resources to re(locate) their operations to such clusters. Further, once firms re(locate) their operations to take advantage of coopetition opportunities, it

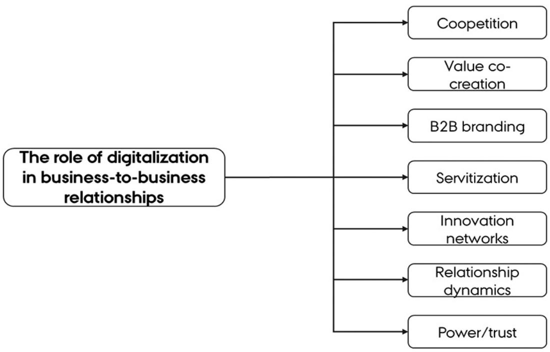

Figure 1.
Major B2B research domains that are (likely to) be influenced by digital marketing

becomes more difficult to leave in the future should their strategic needs dictate it. That is because of the sunken resources and interdependencies created with other firms in the respective clusters. Digitalization can help address some of these challenges associated with co-location. Specifically, it can allow firms to engage in various forms of coopetition without the need for physical co-location by enabling virtual co-location (Iyer and Pazgal, 2003). As such, firms can not only reduce the initial sunk cost of engaging in coopetition by physically locating operations to a logistics or industrial cluster, but also reduce inherent interdependencies resulting from physical colocation while facilitating new forms of coopetition.

Value co-creation

Value creation is at the epicenter of marketing (Woodruff, 1997). Along with the research on service-dominant logic (Grönroos and Voima, 2013; Vargo *et al.*, 2008), B2B marketing research has a strong emphasis on value co-creation as an interactive set of business activities across B2B partners and customers that are aimed at creating superior customer value creation and use experience (Cossío-Silva *et al.*, 2016; Jaakkola and Hakanen, 2013; Ramaswamy and Ozcan, 2018). In fact, the essence of B2B marketing is embedded in the notion that suppliers and customers work together to create superior value that cannot singlehandedly be provided by suppliers.

As the digitalization and related technological advancements drive the next era of business value creation, we argue that digital marketing can fundamentally shape how value is co-created and how customers experience value co-creation. The fact that today value is dominantly seen through intangible attributes rather than tangible benefits (Vargo *et al.*, 2008) highlights the potential role of digitalization and digital technologies in B2B value co-creation. While the use of digital technologies such as the internet of things and blockchain can enhance value co-creation activities and eliminate human involvement in mechanistic processes leading to greater value, they also are likely to raise new challenges that would amplify the soft behavioral aspects of B2B relationships. In this vein, extant research has noted that digitalization provides new opportunities for value co-creation but also harbors threats that firms cannot address with existing business models (Ehret and Wirtz, 2017).

Furthermore, the increasing use of digital technologies in B2B relationships can help transcend challenges related to time and space discontinuities in interorganizational collaborations to co-create value. Digital e-commerce sites such as Alibaba, Amazon and eBay are not only digital marketplaces for buyer–supplier transactions but are increasingly used as a rich platforms for multifaceted collaboration across different geographies and time zones to co-create relevant value, because of better use of data analytics, increasingly sophisticated online services and buyers' and sellers' improving capabilities to use such platforms. Likewise, new digital technologies such as partner relationship management systems and computer-mediated communications can facilitate B2B relationships in the pursuit of value co-creation (Obal and Lancioni, 2013).

The core premise of value co-creation is customers' engagement in dialog with suppliers during each stage of value design, creation and delivery (Payne *et al.*, 2008). Digital technologies can not only facilitate buyer–supplier communication for value co-creation but also shape the way it is executed. Blockchain can help keep track of and integrate each value-creating activity, while reducing the need for manual monitoring by B2B partners (Queiroz *et al.*, 2019).

Business-to-business branding

Brands have been the primary means for customers to identify and recognize a firm's offerings and for firms to be influential in shaping customers' beliefs and actions and deliver functional, emotional and self-expressive benefits (Ramaswamy and Ozcan, 2016). Brand mechanisms also engender and facilitate buyer–supplier relationships, as brands enable obtaining a priori information about potential partners, help achieve legitimacy, support reputations and establish expectations for engaging in B2B exchange (Czinkota *et al.*, 2014; Leek and Christodoulides, 2011). Although branding has traditionally been examined more extensively in B2C settings (Confos and Davis, 2016; Lee *et al.*, 2017; Pappu and Quester, 2016), B2B research has recently acknowledged its importance and made significant inquiries into its role in B2B markets (Leek and Christodoulides, 2011).

For B2B branding to be effective, all the stakeholders must share a common and unified perception of the brand (Leek and Christodoulides, 2011). While smaller B2B firms may rely more on face-to-face interactions with customers to promote their brands, larger firms may need to rely on alternative ways of communicating the brand (Bengtsson and Servais, 2005). Digitalization can help firms address these issues by helping to provide the platform to deliver a cohesive brand image to all stakeholders. Recent research shows that digital media can be a crucial enabler of B2B branding (Lipiäinen and Karjaluoto, 2015). Industry examples supplement academic evidence.

Digitalization has also increased competition and has further pushed firms to seek unique ways to distinguish themselves in the B2B market (Hsiao and Chen, 2013). Further, it has changed how B2B branding is executed. In fact, digital interactions are quickly replacing the traditional salespeople contacts that have long been the hallmark of B2B branding (Zahay *et al.*, 2015). The rise of digital media has made brand building multidirectional. Firms and their business customers are interconnected, can contribute to online discussions and create and exchange content (Hennig-Thurau *et al.*, 2010). Social media allows authentic, experiential stories to be told by business customers, not just for marketing messages to be delivered by firms. As such, digitalization allows for conversations around the brand, as opposed to the pushing of marketing messages (Österle *et al.*, 2018). In essence, because of digitalization, B2B branding is co-created with business customers.

Servitization

Servitization can be seen as a business trend and a set of transformative business processes that go in line with digitalization (Coreynen *et al.*, 2017). Servitization covers an important domain in B2B marketing, as it involves deep and extensive collaboration with multiple suppliers, partners and customers in product–service networks (Jaakkola and Hakanen, 2013; Windahl and Lakemond, 2006). B2B markets are heavily populated by firms that have traditionally developed product-centered customer value with product-driven marketing logic. However, many of such firms are undergoing a serious servitization transformation to respond to market demands that have direct implications for B2B relationships.

In developed countries, more than two-thirds of product firms have adopted a servitization strategy (Neely, 2008). This allows firms to differentiate their offerings further and boost customer engagement. Servitization enhances the firm's innovative capabilities and creates further value at the customer level by allowing the firm to offer a balance of services and products (Visnjic and Van Looy, 2013). However, firms must be cautious that firm performance might not necessarily improve through the addition of services (Benedettini *et al.*, 2017). Threats, such as new competitor entry or product life cycle, can negatively impact a firm's ability to derive value from service implementation (Cusumano *et al.*, 2015). Further, digital technology disrupts the way firms offer their products and services. For example, such technologies can lead to higher unemployment as the need for human intervention is reduced (Brynjolfsson and Mcafee, 2011).

Digitalization plays a crucial role in servitization (Vendrell-Herrero *et al.*, 2017). In fact, a growing stream of research examines the role of digital technologies in servitized products under the umbrella of digital servitization (Vendrell-Herrero and Wilson, 2017). In sum, digital servitization can be defined as the offering of digital services rooted in a physical product (Holmström and Partanen, 2014). While digital services are both an enabler and a driver of servitization (Vendrell-Herrero *et al.*, 2017), digitalization also poses a couple of challenges to servitization. First, once they are created, digital services have a very low cost of producing new units. While this might be viewed favorably by the seller firm, it might also reduce the customers' perception of value offering (Rifkin, 2014). Second, digital services can cannibalize or substitute traditional products (Greenstein, 2010). As such, B2B firms must also pay close attention to these challenges to ensure they truly benefit from digitalization.

Innovation networks

Innovation networks are loosely coupled systems of autonomous firms (Dhanaraj and Parkhe, 2006), and they "encompass a number of cooperative relationships between firms, with constituent members engaged in innovation-supporting activities ranging from R&D to commercialization and diffusion" (Dodgson *et al.*, 2008, p. 431). Key elements of innovation networks include network membership, network structure and network position (Dhanaraj and Parkhe, 2006), all of which shape the way network members behave, and innovation takes place. Each participant in innovation networks adds to the behavioral and structural complexity that could be witnessed in networks of substantial size (Borgatti and Halgin, 2011). Actors with different types of network ties such as kinships, affective, transactional and interactive ties practice a multitude of activities across a multitude of members and positions. Hence, innovation networks exhibit a manifold of complexity that stems from the complex nature of innovation (Ritala and Hurmelinna-Laukkanen, 2009) and a complex nature of networks (Chakkol *et al.*, 2018).

The Massachusetts Institute of Technology (MIT) Smart Cities Project offers a good example of innovative networks with its design of a City Car. The City Car is a prime example of how digitalization in service and product innovation brings together a plethora of heterogeneous resources blurring industry boundaries. It features an open-design approach that allows third-party innovators to contribute to its design (Lyytinen *et al.*, 2016). The City Car features can be folded and stacked because of its decentralized power train; it is entirely digitized and can be integrated within a city's intelligent transportation service (Mitchell, 2007). The vehicle is stacked at various locations throughout the city and can be obtained for short-term use through payments made via mobile devices. It uses pricing mechanisms to buy driving rights in certain areas to reduce congestion. Digitalization enables the formation of innovation networks to contribute to the design of the City Car through the pooling of physical and intellectual resources outside of MIT, such as experts in electrical engineering, urban planning, industrial design, mechanical engineering, material science, energy policy and software engineering.

Recent research indicates that advances in digital technologies pose noteworthy benefits for innovation networks. First, they reduce communication costs and increase reach and scope, thus enhancing innovation network connectivity. Second, they increase network knowledge heterogeneity by enhancing the scope and speed of digital convergence. In essence, these developments expand innovation networks and increase knowledge coordination across space and time (Lyytinen *et al.*, 2016). As such, digitalization facilitates the development of four types of emerging innovation networks across the dimensions of digital connectivity through operant resource and level of heterogeneity within operant resources that must be identified and deployed for product innovation:

- project innovation networks;
- clan innovation network;
- the federated network; and
- the anarchic network (Lyytinen *et al.*, 2016).

Relationship dynamics

Relationship dynamics comprise the interactions of multiple individuals that operate and interact within and across organizational boundaries on an evolving and dynamic basis (Palmatier *et al.*, 2013). One of the central tenets of B2B relationships is that they are dynamic (Autry and Golicic, 2010; Palmatier *et al.*, 2013). They are not linear but have ups and downs along the space–time continuum. Likewise, B2B relationships host politically driven behavioral elements (Lancioni *et al.*, 2005; Wilson and Barbat, 2015) that bound rational decision-making and complicate relationship undercurrents. Firms and their boundary-spanning representatives go through changing experiences of B2B relationships throughout time, and digital elements of marketing such as the use of social media platforms can inform how relationship dynamics between partners take shape within the lifespan of B2B interactions. Accordingly, concepts such as commitment velocity (Palmatier *et al.*, 2013), actor role and role ambiguity, relationship quality, as well as boundary-spanning capabilities and activities (Chakkol *et al.*, 2018) are concepts germane to B2B relationship dynamics that entail further attention *vis-à-vis* digital marketing.

Dwyer *et al.* (1987) seminally recognized that relationships go through stages (i.e. grow and mature) and operate differently across the different stages. Digitalization has completely changed how actors within a B2B network can develop relationships, and has also strongly influenced relationship stages (Vendrell-Herrero *et al.*, 2017), thus playing a direct role in relationship dynamics. Digitalization of business relationships has been triggered and sustained by the plethora of digital and electronic commerce tools and can be described as the process of making business activities, information and offerings related to exchanges between two firms digital (Salo, 2006).

Business relationship digitalization can yield significant benefits for the parties involved, including lower transactional cost and increased customer value (Peppard and Rylander, 2006). Digital technologies allow downstream and upstream supply chain actors to connect directly, blurring the boundary between customer and supplier firms, and promoting alliances between supply chain parties (Pagani and Pardo, 2017). However, fully digitalized business relationships are not without pitfalls. Digitalization can eliminate the need for human intervention, thus profoundly affecting B2B relationship dynamics, with a direct impact on sales professionals (Singh *et al.*, 2019). Without the human element, the relationship stages described by Dwyer *et al.* (1987) can be profoundly altered, resulting in both positive and negative implications. Hybrid sales organizations, which employ traditional salespeople and digital channels, have become quite prevalent. Although several theoretical frameworks have been put forth to explain hybrid sales organizations, their impact on B2B relationship dynamics is not well-understood (Thaichon *et al.*, 2018). Similarly, recent research has highlighted the negative effects of strong relationships

(Pillai *et al.*, 2017). Strong relationships fostered by greater connectivity following digitalization can lead to negative consequences, which need to be examined in detail.

Power/trust

Power and trust are fundamental concepts both within and outside of marketing (French and Raven, 1959; Hunt and Nevin, 1974; Sturm and Antonakis, 2015) and have traditionally been bedrocks of B2B research (Galinsky *et al.*, 2017; Hingley, 2005). Power is an inherently relational concept (Zhao *et al.*, 2016), and so is trust (Guenzi and Georges, 2010; Selnes, 1998). Nonetheless, beyond being essential phenomena of interest in B2B relationships, power and trust are also elusive and subjective concepts that change over time and do not have a uniformed set of drivers. As such, both power and trust are contextual and can be underpinned by technological advancements like digitalization along with socioeconomic changes.

Probably the most relevant and controversial elements of digitalization to power and trust dynamics in B2B relationships are data integrity and security. Data is often touted as the new most important economic resource and the next big source of power (Economist, 2017). When virtually every behavior can be codified and stored as data, firms that have means to access big data and are able to analyze it are likely to obtain power advantage within their B2B dyads or networks. However, having access to and using such data sources come with ethical and behavioral caveats. While the use of big data as a source of competitive advantage can benefit firms' power position in B2B relationships, it may also hurt interorganizational trust – an essential building blocks of B2B relationships (Jain *et al.*, 2014; Selnes, 1998). Accordingly, especially big data analytics, a pillar of digitalization, may have fundamental implications for power/trust equilibrium in B2B relationships that need to be treaded diligently.

Digitalization has affected B2B power relationships in multiple sectors. In the hotel, taxi and music industries, new digital platforms such as Airbnb, Lyft and Spotify have penetrated the market as downstream retailers and have proposed competitive offerings by exercising control over consumer interaction while also making upstream resource owners reliable suppliers. Amazon is another prime example of digital servitization. The firm uses its scale to establish power dominance in its relationship with its suppliers. In essence, the upstream–downstream power balance has shifted in many industries where digital servitization has occurred (Vendrell-Herrero and Wilson, 2017).

Digitalization has also led to the creation of digital trust (Mazzella *et al.*, 2016). Several crowdsourcing applications are enabling the establishment of this new type of trust. As such, "the key building block of society-interpersonal trust-is being transformed from a scarce resource into an abundant one" (Mazzella *et al.*, 2016). Consumers use services such as Uber or Lyft and trust the providers of these services because of the digital platform the providers use to offer their services. Research also shows that applications of online feedback mechanisms serve to build trust in B2B platforms (Dellarocas, 2003). That is, online applications help establish trust so business relationships can be developed (Arnott *et al.*, 2007).

Furthermore, emergent technologies, such as blockchain, facilitate trust-free cryptographic transactions (Beck *et al.*, 2016). Digitalization allows economics transactions to be guaranteed by the blockchain, thus creating trust-free systems (Hawlitschek *et al.*, 2018). Participating entities to transactions executed via blockchain no longer need to spend time to form trust prior to engaging in economic exchanges. In essence, blockchain is making the traditional notion of trust obsolete and entails further research to be better understood. The foregoing discussion leads to the following specific questions for future research.

Future research agenda

Despite growing research interest in the interface of B2B relationships and digital marketing, there are many unexplored or underexplored phenomena within this research domain that highlights a rich future research potential. In this section, we discuss the research potential of digital marketing in B2B relationships in line with the seven noteworthy domains of B2B relationships that were discussed earlier.

Coopetition

As a dynamic and paradoxical phenomenon that is manifested at multiple levels and across many contexts (Rai, 2016; Raza-Ullah *et al.*, 2014), coopetition remains little understood. The emergence and increasing prevalence of digital technologies and digitalization-driven business models can potentially change the way coopetition is understood and manifested in B2B markets and have distinct future research implications. First, the question of how digital technologies underpin coopetition dynamics between firms can enable scholars to explain the (supportive or hindering) role of various digital technologies in the way coopetition between B2B partners evolve over time. Different types and degrees of coopetition may emerge as a result of the use of digital platforms by B2B partners, and scholars are advised to examine how B2B coopetition changes amid the growing adoption of digitalization.

Furthermore, beyond dyads, coopetition may be subject to network effects (Czakon and Czernek, 2016), and digital technologies such as blockchain that have network applications may influence coopetitive behaviors and outcomes. Accordingly, we suggest that circumstances under which the use of blockchain lead to productive or unproductive forms of coopetition require further attention. Likewise, coopetition is, in part, about a dynamic juxtapose of collaborative and competitive roles boundary spanners assume in B2B relationships. In this vein, investigating the role of digital technologies in collaborative and competitive roles in interorganizational interactions may be another fruitful research pursuit to undertake.

Finally, but not exhaustively, as one of the main functions of digitalization is transcending space discontinuities, the interplay between geography and digitalization in explaining coopetition may reveal interesting insights. Geography and space-related factors may play an instrumental role in the nature of coopetition in B2B relationships (Luo, 2007). For example, the challenges related to the psychic, cultural and institutional distances between B2B partners may instrumentally shape how they see each other as collaborators and/or competitors (Klimas, 2016; Monticelli *et al.*, 2018). However, once digital tools, platforms and business models are in the picture, the role of geography in coopetition may be fundamentally reshaped. Therefore, we call for greater attention to the potential role of digitalization in the relationship between geography and coopetition.

Value co-creation

While value co-creation is the essence of B2B relationships (Cossío-Silva *et al.*, 2016; Jaakkola and Hakanen, 2013; Ramaswamy and Ozcan, 2018), the transformative role of digitalization in B2B value co-creation needs further attention. For example, the role of big data analytics in open innovation as a value co-creation strategy has not yet been thoroughly explored. As such, little is known about how B2B firms can unleash the potential big data analytics in open innovation communities and realize the potential of open innovation more effectively. We suggest that B2B marketing scholars embed themselves more deeply in the world of big data and develop informed frameworks on the role of big data analytics in value co-creation in open innovation networks. Likewise, as the advances in digital technologies enabled transcending place discontinuities in value co-creation (Iyer and Pazgal, 2003), more research is needed to reveal whether and when virtual team collaboration leads to a higher degree of value co-creation.

Furthermore, we earlier noted that B2B firms are more and more compelled to develop digital media presence for building their brand and competing more effectively in the marketplace. However, many B2B firms struggle to optimize their digital media presence, and there is not sufficient research to inform and guide practitioners within this domain. We, therefore, propose further research on technical and behavioral tools for collaborative B2B digital media optimization and deployment.

Finally, boundary-spanning individuals in B2B relationships may experience digitalization as a double-edged sword. While, on the one hand, digital technologies may facilitate their work and make value co-creation easier, on the other hand, such technologies may render some of them redundant and no longer needed by their organizations. As such, there is a need for further research in B2B marketing on the implications of digitalization for individual boundary-spanners and their work life. Such research may enable a more balanced view and use of digital technologies in B2B value co-creation and ease potential challenges boundary spanners face when dealing with digitalization.

Business-to-business branding

Research indicates that digital media can be an essential enabler of B2B branding (Lipiäinen and Karjaluoto, 2015). In fact, digitization has transformed how firms can distinguish themselves from competitors in the B2B market (Hsiao and Chen, 2013). A noteworthy change has been in the area of the directionality of the brand building, with brand building evolving from unidirectional (i.e. firm to customer) to multidirectional (i.e. firm to customer and customer to firm) (Hennig-Thurau *et al.*, 2010).

A fruitful area of future research is in the domain of social media. This platform allows business customers to actively engage in B2B branding with firms (Österle *et al.*, 2018). However, little is known about how B2B firms engage in branding via social media platforms. Such insights could offer firms a new source of competitive advantage. Future research should also explore the potential payoffs of mobile advertising in B2B markets and the effectiveness of mobile viral marketing campaigns for B2B branding. Current research efforts have primarily focused on these phenomena in the B2C context. In addition, little is known about the underlying mechanisms of building brand equity for B2B technology firms. Qualitative studies can help uncover these mechanisms. Finally, the underexplored area of B2B branding could benefit from future studies investigating the digital underpinnings of co-branding in B2B markets. Considering the costs associated with branding efforts, such insights can offer firms additional avenues for achieving their branding needs while lowering their costs.

Servitization

The interface between servitization and digitalization in B2B markets has been receiving increasing attention (Coreynen *et al.*, 2017; Vendrell-Herrero *et al.*, 2017). One might argue that servitization can serve as a force for further digitalization, and digitalization may facilitate servitization transformation. However, many relevant issues on servitization and digitalization in B2B markets remain to be explored further. For example, the question of when digitalization benefits the servitization success of industrial firms, and when it hurts is an intriguing one. This perspective acknowledges that the interplay between servitization and digitalization does not always have to be positive, and potential negative aspects are also worth investigating.

Furthermore, as the contemporary landscape of services and servitization depends more and more on ecosystems (Akaka *et al.*, 2013; Koskela-Huotari *et al.*, 2016), the underexplored linkage between digital platforms and business ecosystems during servitization processes comes forth. Thus, we suggest that researchers delve deeper into the mechanisms that connect digital platforms and business ecosystems in sophisticated ways. In a similar vein, when servitization is seen as a business model (Palo *et al.*, 2019), whether digital technologies can complement strategy making in achieving servitization success requires further attention. Hence, exploring the role of digital technologies in enabling servitization-driven business model innovation may provide interesting insights to scholars and practitioners alike.

Innovation networks

The impact of social media networks on consumer engagement is fairly well explored (Sheng, 2019). Marketing and management scholars have so far done less work in uncovering the role of digital technologies in orchestrating innovation networks among firms. It is, therefore, unclear as to whether user-generated content supports the development and diffusion of innovation in B2B markets the way that it does in the B2C realm (Mallapragada *et al.*, 2012), and the types of network structures that are conducive to promoting innovation in B2B markets. The ideal mix of collaborating users, producers and business and non-business actors is unclear as well.

As reviewed above in our section on the role of digitalization in B2B relationships, digital communication is characterized by low communication costs and the fact that real-world networks tend to be characterized by relatively short paths (i.e. their small world property) between two randomly chosen nodes (Jackson and Rogers, 2005). We thus expect to see heterogeneous knowledge sources enter into contact in B2B innovation networks. The view that innovation is generated through the recombination of previous knowledge (Solé *et al.*, 2016) would further suggest that digitalization will generate accelerating innovation growth as networks form. As the sheer quantity of innovation and the data it generates increases, the question will naturally arise as to how the various sources of and approaches to big data analytics can be harnessed to catalog, measure and optimize innovation networks. Another topic that ought to be addressed is the way in which the knowledge management process – now also digitalized along with innovation networks – will influence firms' ability to search. We imagine that both search depth and search breadth through innovation networks will change and will impact important business outcomes.

Relationship dynamics

If one looks at the lifespan of B2B relationships during the past few decades, it would be fair to say that external circumstances that condition such relationships have dramatically changed. For one, the role of digital technologies in B2B relationships has been both that of facilitating and disturbing. However, the research has been falling behind to explore sophisticated aspects of this role. For example, the question of how buyers and suppliers approach data integrity and security challenges during the lifetime of their relationships has not been properly examined. As such, there is room for a better examination of digitalization-driven data integrity and security concerns in B2B relationships. For another, while some partners excel at the adoption and use of digital technologies, others lag behind. Nonetheless, little is known about what happens when B2B partners are uneven in their adoption and effective use of digital platforms. Therefore, the issue of how asymmetric use of social media platforms influence relationship quality between B2B partners emerges as an important relationship dynamics related issue to resolve.

In a similar vein, as shortly discussed within the domain of value co-creation above, when human intervention is and is not needed in the evolution of digitalization-based B2B relationships may be an essential area to dwell on as artificial intelligence gradually takes over human's role in governing B2B exchanges. This question can be placed within the bigger discussion around what type of human skills can and cannot be replaced by artificial intelligence in the future and what implications such transformation may have for individual businesses, marketing channels and society at large. Hence, the behavioral underpinnings of omnichannel B2B digital media strategy and adoption emerge as a potential area of research to tackle such issues in the future. The examination of behavioral underpinnings of digitalization-driven B2B relationships may also lead to collateral opportunities for understanding the dark side aspects of strong relationships that arise from digitalization and the ensuing connectivity, given the fact that increased digitalization may foster stronger connectivity between B2B partners.

Power/trust

As noted in the above discussion, we expect that digitalization may have a pervasive influence on power and trust-related phenomena in B2B relationships. However, researchers examining power and trust in B2B marketing have somewhat been slow to catch up with recent developments in digital technologies. For example, interfirm monitoring has often been seen as an unpleasant and challenging but necessary tool for governing B2B relationships (Heide *et al.*, 2007). However, we still do not know how new tools for monitoring (e.g. blockchain and artificial intelligence) change interfirm behavior. Future research can, therefore, examine the way digital monitoring tools are implemented and shape buyers' and suppliers' behaviors in business markets. Nonetheless, beyond being a monitoring mechanism, blockchain, in specific, may facilitate interorganizational trust (Hawlitschek *et al.*, 2018), and more research is needed to examine whether and how blockchain support trust-building activities in marketing channels. Similarly, research can revisit the conceptual properties and outcomes of trust in digital settings and explore whether and how digital trust is different from conventional trust in B2B markets. While digital trust has gained growing attention on digital marketing research, we believe there is need for a better understanding of the concept and its outcomes in B2B relationships.

An increasingly prevalent notion suggests that data is power more so than ever before (Economist, 2017). However, still little is known about the interplay between big data use and interfirm power dynamics. As such, we suggest that research exploring this interplay can make noteworthy contributions to both streams of research on power and on digital marketing. Likewise, research on the sources of power, while seminal, is quite outdated and relies on conventional assumptions (Hunt and Nevin, 1974; Turker, 2014). In the meantime, a plethora of research has examined online reputation/word of mouth, especially in consumer settings (Dellarocas, 2003; Proserpio and Zervas, 2017). We suspect that online reputation/word of mouth can be a new source of power in B2B relationships and suggest scholars explore the role of online reputation/word of mouth in obtaining and exercising power in business networks.

Articles in the special issue

The articles in the special issue take a close look at some important items within the topic of digital marketing and B2B relationships. In an interesting article, Zhu *et al.* (2020) examine the patterns of B2B digital referrals inscribed in business's digital content. These authors find that businesses are more likely to give referrals to peers residing in the same region. The article provides useful insights into competition in the digital space.

Social presence currently plays an increasingly important role in digital marketing. Koponen and Rytsy (2020) examine social presence in B2B chat conversations. These authors identify different types of social presence. The findings provide useful insights for managers regarding training salespersons for a chat. In services management, scholars have long assumed that loyalty is the result of a chain of effects. What has not been so clear is how this chain changes when service delivery is modified by replacing or adding to social relationships with technology relationships and digitalization. In Kingshott *et al.* (2020), the authors carefully distinguish between social chains of effect and technical chains of effect. Their analysis suggests the overarching importance of trust in the relational exchange, and also suggests the counterintuitive result that managers need to carefully separate social from technical resources rather than integrate the two types of resource.

Digitalization has amplified the prevalence of different types of online marketing, including social media marketing, for B2B firms. In Drummond *et al.* (2020), the authors identify the digital engagement strategies and tactics in developing social media marketing capability. They explore different digital engagement strategies and tactics for the four essential layers of social media marketing capability and contribute to research on social media use in B2B marketing. Likewise, Karampela *et al.* (2020) focus on advancing research on the consequences of using social media sites in B2B markets. They investigate the role of B2B brands' social media presence, interactivity and responsiveness in customers' perceptions of commitment, intimacy, satisfaction and partner quality. They find that a supplier's presence on social media sites such as Twitter, LinkedIn and Facebook plays a positive role in each of the brand relationship strength aspects of commitment, intimacy, satisfaction and partner quality. They also reveal that interactivity boosts perceived partner quality, while responsiveness positively affects commitment.

The goal of our special issue was to recognize the increasingly instrumental role of digitalization in B2B relationships and provoke new research avenues at the interface of digital marketing and B2B marketing. In this editorial, we outline seven major domains of B2B relationships that are being shaped by digitalization, and we develop a roadmap for future research to explore the interface more closely. Likewise, the articles in this issue both provide unique insights into the role of digitalization and digital technologies in B2B marketing and offer new avenues for future research.

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