‘Just Be There’: Social Media Presence, Interactivity, and Responsiveness, and their Impact on B2B Relationships

Abstract

Purpose – In B2B settings, research on social media sites (SMS) has primarily examined the benefits and challenges relating to their use as well as factors driving their adoption. Recently, attention has turned to the consequences of using SMS in B2B markets. This paper extends this line of research by investigating the impact of B2B brands’ social media presence, interactivity, and responsiveness on customers’ perceptions of four indicators of brand relationship strength (commitment, intimacy, satisfaction, partner quality).

Design/methodology/approach – Data from an online survey (N=200) with customers of UK-based B2B firms were analysed using structural equation modelling.

Findings – The study reveals that a supplier’s presence on Twitter, LinkedIn and Facebook has a positive impact on all four brand relationship strength indicators; interactivity enhances perceived partner quality, while responsiveness positively influences commitment. Differences across the three SMS are also observed.

Research limitations – The research was conducted on a sample of UK-based firms with varied degrees of SMS use that may influence impact on B2B brand relationship strength.

Practical implications – This study indicates that B2B brands ought to focus primarily on presence on SMS, given its positive impact on brand relationship strength. At the same time,
however, B2B brands should be active in responding to customers’ queries on SMS as well as interacting with them to enhance commitment and perceived partner quality, respectively.

**Originality/value** – This study contributes to the digital marketing and B2B relationships interface, and is the first to examine the role of B2B brands’ presence, interactivity, and responsiveness on SMS in enhancing relationships with customers.

**Keywords** – B2B; social media; supplier-customer relationships; commitment; intimacy; satisfaction; partner quality

**Paper type** – Research paper
Introduction

Social media sites (SMS) provide brands with unique opportunities to foster relationships with customers (Thorbjørnsen et al., 2002, Andzulis et al., 2012, Foltean et al., 2018). This is because SMS, building on the ideological and technological foundations of Web 2.0 (Kaplan and Haenlein, 2010), facilitate both synchronous and asynchronous two-way communication between customers and brands. Specifically, brands use SMS to establish their presence online and actively engage with their followers by uploading content or responding to customers’ comments and queries (Osei-Frimpong and McLean, 2018). This SMS presence and active brand-customer exchanges in turn replicate face-to-face interactions in an online environment (Ou et al., 2014) supporting the supplier-customer relationship (Andzulis et al., 2012, Foltean et al., 2018).

The value of SMS has been extensively researched in the business-to-consumer (B2C) setting (Dwivedi et al., 2018, Ramadan et al., 2018, Confos and Davis, 2016), where SMS have reshaped the ways in which brands communicate with their customers (Christodoulides, 2009). Yet, given that a substantial proportion of economic activity is consisted of business-to-business (B2B) transactions, recent research has highlighted that future growth in the use of such technologies will come from B2B markets (Wang and Kim, 2017). Empirical research examining the role of SMS use in B2B contexts is at an early stage, having primarily focused on benefits and challenges B2B brands face while using SMS (Michaelidou et al., 2011), and on the assessment of factors driving SMS adoption (Siamagka et al., 2015, Lacka and Chong, 2016, Foltean et al., 2018). However, given that these tools are changing the nature of B2B relationships (Obal and Lancioni, 2013, Song et al., 2007, Golgeci and Gligor, 2017), exploring how the use of SMS leads to stronger supplier-customer relationships emerges as a pressing matter. It is only recently that research examining the consequences of SMS use by B2B brands has emerged, acknowledging that SMS are valuable tools supporting
supplier-customer relationships (Quinton and Wilson, 2016, Agnihotri et al., 2016, Foltean et al., 2018), especially for small-medium enterprises (SMEs), which find SMS to be cost-efficient communication tools (Broekemier et al., 2015, Henninger et al., 2017). It is somewhat surprising, therefore, that B2B SMEs do not seem to actively adopt and use SMS or fully embrace their relationship building and relationship development potential (Michaelidou et al., 2011, Foltean et al., 2018, Broekemier et al., 2015). Indeed, existing studies reveal that only more innovative B2B SMEs promote their business to new customers by using SMS to increase awareness and grow customer interest, with SMS simultaneously being a means for developing brand reputation (Broekemier et al., 2015). We also lack understanding of how B2B SMEs react to the ways with which their suppliers post updates, interact with them and respond to them on SMS. It is therefore vital to examine the perceptions of representatives from those firms about the impact of their suppliers’ SMS use on key aspects of their relationships with them.

Drawing from brand-customer relationships literature, this paper examines the impact of SMS use by B2B brands on key indicators of brand relationship strength. Specifically, this study aims to assess the role of SMS presence, interactivity, and responsiveness on customers’ perceptions of four key indicators of B2B brand relationship strength: commitment, intimacy, satisfaction, and partner quality. The study specifically focuses on the customer’s perspective, as previous research has noted that supplier-customer relationships may be perceived differently depending on the perspective from which they are examined (Ulaga and Eggert, 2005); hence, customers’ perceptions might not be in line with the supplier’s assessment (Caceres and Papatroidamis, 2007). As previous research has mainly studied brand relationships from the supplier’s perspective (Dwivedi et al., 2018), we have limited knowledge of the customer’s perspective as to whether SMS has positive effects on the relationship with their B2B partners/suppliers (Keinänen and Kuivalainen, 2015,
Guesalaga, 2016). And yet, this is a vitally important perspective to take, as both B2C and B2B brands grow only when customers develop stronger affiliations with them. Indeed, research in B2B settings has shown that when customers perceive their relationship with their supplier to be strong and of value, they maintain loyalty towards the supplier and become less likely to be affected by potential supplier-brand transgressions or service failures (Caceres and Paparoidamis, 2007).

In sum, this paper contributes to the emerging stream of scholarly work at the intersection of B2B branding, supplier-customer relationships, and social media research in multiple ways. First, the study contributes to B2B branding literature by providing insight on the ways in which B2B brands should aim to behave in an increasingly important touchpoint where their customers, existing and prospective, experience, and engage with their brand. Second, this research sheds light on the consequences of interactions on online channels (SMS) on key aspects of B2B supplier-customer relationships, namely commitment, intimacy, satisfaction, and partner quality. To date, academic research has acknowledged that SMS use presents significant potential for the development and maintenance of B2B supplier-customer relationships, yet limited research providing empirical evidence exists in the area (Quinton and Wilson, 2016, Salo, 2017). This study reveals, for the first time, customers’ perceptions of their B2B suppliers’ social media activities and how these influence customers’ commitment, intimacy, satisfaction, and perceived partner quality. Third, the current research contributes to social media literature by exploring separate dimensions of suppliers’ SMS use in B2B settings, that is, presence, interactivity, and responsiveness as well as via unveiling how their influence on the four key brand relationship strength indicators differs across different platforms, namely, Facebook, Twitter, and LinkedIn. Finally, this study, conducted on a sample of B2B SMEs in a developed economy setting, sheds more light on how these
types of organizations use social media to build relationships and engage with their suppliers and business partners.

This paper is structured as follows. First, literature on the importance of SMS for supplier-customer relationships in B2B markets, as well as literature on indicators of relationship strength is reviewed. Next, the research hypotheses and model are discussed, prior to explaining the empirical research design in the methodology section. Research findings are then presented in the subsequent section, which is followed by a general discussion. The paper concludes by outlining theoretical and practical implications deriving from this research and discussing limitations and avenues for future research.

Theoretical Background

The role of SMS in supplier-customer relationships within B2B markets

Given the nature of B2B transactions (i.e. complex decision-making process, large value, customization needs, etc.), building and sustaining relationships in B2B markets is crucial to both suppliers and customers. On the one hand, suppliers tend to "allocate considerable investments to maintaining and expanding the scale and scope of the relationships with their customers" [de Ruyter et al. (2019), p. 94]. This is because they benefit from securing a loyal customer base (Rauyruen and Miller, 2007, Čater and Čater, 2010) which is less sensitive to competition (Bendixen et al., 2004) or to potential incidents of transgressions due to product or service failure (Caceres and Paparoidamis, 2007). Such relationships are thus company assets (Songailiene et al., 2011) playing an important role in the firm’s success and profitability (Rauyruen and Miller, 2007, Čater and Čater, 2010). On the other hand, customers also desire a steady, continuous relationship with a supplier that understands their
unique needs (Rauyruen and Miller, 2007) and delivers high-quality products and services (Webster and Keller, 2004).

Supplier-customer relationships refer to all reciprocal interactions between the supplier and the customer, which, however, in B2B markets are very complex (Palmatier et al., 2006, Hutchinson et al., 2011), including multiple touchpoints and layers (Rauyruen and Miller, 2007). Indeed, the customer experiences the supplier’s brand and interacts with brand-focused messages across multiple touchpoints and communication tools, traditionally including salespersons, call-centres, promotional material, trade shows, etc. However, in contemporary marketplaces where digitalisation is revolutionising business (Hofacker et al., 2016, Kannan and Li, 2017), supplier-customer relationships extend not only offline but also increasingly online (Thorbjørnsen et al., 2002). This means that customers can now interact with a supplier’s brand via a variety of online tools, which can mimic two-way supplier-customer communication (Thorbjørnsen et al., 2002, Ou et al., 2014, Foltean et al., 2018).

Of particular interest are social media sites (SMS), which facilitate reciprocal communication between suppliers and customers and which provide multiple benefits to B2B firms that adopt and actively use them (Michaelidou et al., 2011, Lacka and Chong, 2016, Cortez and Johnston, 2017, Foltean et al., 2018). SMS have been argued to create significant opportunities for building and developing business relationships (Quinton and Wilson, 2016, Järvinen et al., 2012). In practice, there are multiple ways B2B firms can use SMS for relationship building and relationship development purposes, as they can extend brand awareness and generate new leads, communicate person-to-person with existing customers and offer customer support, convey content that is relevant to their customers and will thus enable further trust and confidence about the brand’s expertise, and so on (Cawsey and Rowley, 2016). The role of SMS as communication tools with relationship development and relationship building properties becomes even more significant for SMEs in B2B contexts.
This is because SMEs are enterprises in the process of continuous transformation and committed to further growth that can be secured via the effective development of close networks and long-lasting relationships (Durkin et al., 2013). As these organizations tend to be resource-deficient, using cost-effective SMS tools to extend their networks and communicate with existing and prospective business partners may be vital for business success (Bocconcelli et al., 2017). This communication can in turn lead to the development of relationships characterised by mutual commitment and longevity (Durkin et al., 2013), as well as increased opportunities for content and knowledge information-sharing and identification of new collaboration opportunities between them and their business partners or suppliers, hence further strengthening relationships (Wang et al., 2016a).

Therefore, understanding how suppliers’ social media efforts contribute to supplier-customer relationships is crucial (Thorbjørnsen et al., 2002, Smith and Gallicano, 2015, Leek et al., 2016, Salo, 2017, Foltean et al., 2018), and several calls for further research on this area have been made (Obal and Lancioni, 2013, Quinton and Wilson, 2016, Cawsey and Rowley, 2016). As it remains unclear how supplier brand presence on SMS leads to stronger relationships with its customers, this study seeks to examine how B2B brands’ social media efforts influence customers’ perceptions of relationship strength. The next section provides an overview of key indicators of strong supplier-customer relationships.

**Indicators of supplier-customer relationship strength**

The overall strength of supplier-customer relationships has been captured in B2B research via the concept of relationship quality (Weaven et al., 2017, Caceres and Paparoidamis, 2007, De Wulf et al., 2001). Relationship quality is well integrated in B2B literature (Walter et al., 2001, Ulaga and Eggert, 2005, Čater and Čater, 2010), yet, while there is in general agreement that it is a multi-dimensional construct, consensus on the exact indicators has not
been reached (Čater and Čater, 2010, Caceres and Paparoidamis, 2007, Hutchinson et al., 2011). In contrast, research on *brand relationship strength* in B2C settings is much more developed following the seminal paper by Fournier (1998), who proposed that consumer-brand relationship strength, otherwise known as Brand Relationship Quality (BRQ hereafter), consists of affective/socio-emotive (Love/Passion; Self-connection), cognitive (Intimacy; Partner Quality), and behavioural (Interdependence; Commitment) ties. Drawing from Fournier’s qualitative work, Thorbjørnsen et al. (2002) developed a BRQ measurement scale for B2C settings which included love/passion, intimacy, self-connection, and partner quality, while Aaker et al. (2004) identified four indicators: commitment, intimacy, satisfaction, and self-connection.

In deciding which indicators should be selected, a careful evaluation of the context in which brand relationship strength is being examined must take place. Indeed, certain indicators of brand relationship strength identified in B2C research appear also relevant in B2B contexts. For instance, Intimacy and Partner Quality are cognitive ties, which are in alignment with the highly involved nature of B2B interactions (Swani et al., 2014, Brown et al., 2016), and are thus appropriate for this context. Specifically, *Intimacy* encapsulates the extent to which the customer has knowledge and perception of brand-related messages (Fournier, 1998), in essence capturing the deep understanding between two partners that typically emerges via information-sharing (Aaker et al., 2004). *Partner Quality* signifies the customer’s overall appraisal of the extent to which the brand is reliable and predictable in fulfilling its role, follows the rules of the relationship, delivers what is expected, and is accountable for its actions (Fournier, 1998). Furthermore, a strong relationship is also characterised by the customer’s overall satisfaction with, and happiness in, the relationship with the supplier in the present (*Satisfaction*), as well as their willingness to continue investing in, and maintaining, the relationship in the future, a notion captured by the construct of *Commitment* (Fournier,
1998, Aaker et al., 2004). Satisfaction (Crosby et al., 1990) and Commitment (Dorsch et al., 1998) are two indicators of relationship strength appearing more commonly in B2B research (Hutchinson et al., 2011); hence, it is logical that these should be included in any empirical examination of relationship strength. Overall, therefore, this research proposes to examine B2B relationships using the aforementioned four indicators, namely, Intimacy, Partner Quality, Satisfaction, and Commitment, as they appear to be more relevant indicators of brand relationship strength in B2B markets. As it remains unclear how B2B brands’ social media efforts influence customers’ perceptions of brand relationship strength, the next section develops hypotheses proposing a positive contribution of suppliers’ social media use to customers’ perceptions of the four indicators of brand relationship strength.

**Conceptual Framework & Hypotheses Development**

The overarching aim of this research is to examine the role of SMS use on the four key indicators of brand relationship strength identified above as more relevant for B2B settings: Commitment (the customer’s intentions to behave in a manner supportive of B2B relationship longevity); Intimacy (the extent to which the customer has knowledge and deep understanding of the B2B brand); Satisfaction (the customer’s overall evaluation about the relationship with the B2B brand); and Partner Quality (the customer’s expectations that the B2B brand will be reliable and predictable in fulfilling its role, will follow the rules of the relationship, will deliver what is expected, and that it will be held accountable for its actions) (Fournier, 1998, Aaker et al., 2004). According to previous research, customer relationships with a supplier’s brand can be facilitated by effective use of online communication tools that enable two-way interaction (Thorbjørnsen et al., 2002, Andersen, 2005, Ou et al., 2014). Building on the ideological and technological foundations of Web 2.0 (Kaplan and Haenlein,
2010), SMS allow for reciprocal communication and thus are often referred to as “the technological component of [...] relationship building” [Andzulis et al. (2012), p. 308]. Recognising the value of SMS, B2B firms increasingly adopt and use those communication tools to support brand relationship strategies (Rapp et al., 2013, Itani et al., 2017, Andersson and Wikström, 2017, Murphy and Sashi, 2018, Nunan et al., 2018, Guha et al., 2018, Hsiao et al., 2019). Yet, the impact of SMS use on B2B brand relationship strength indicators has not been examined thus far.

Online communication tools enable brands to extend their physical presence to virtual presence (Lowry et al., 2006). Physical presence is defined as the perception of intimacy or being close, while virtual presence refers to the perception of being present despite physical separation (Ou et al., 2014, Chong et al., 2018). Specifically, SMS presence is defined as ‘presentness’, ‘state of being’ and ‘being available’ on SMS (Smith and Gallicano, 2015). Research notes that presence is a natural outcome of the communication process, and a consequence of SMS use (Ou et al., 2014). This is because by setting up SMS brand pages, brands become present on these sites, and they manifest this presence by posts and updates with which customers can engage (Osei-Frimpong and McLean, 2018).

Despite a popular belief that, due to the nature of B2B transactions, suppliers have to be physically present to develop and maintain relationships with customers (Swani and Brown, 2011), recent research provides evidence that B2B brands’ physical presence can be effectively replicated by SMS presence (Quinton and Wilson, 2016, Itani et al., 2017, Ogilvie et al., 2018). This is because by maintaining SMS presence, B2B brands can transfer information to target customer groups (Järvinen and Taiminen, 2016, Itani et al., 2017), for example to a group of SMEs (Hsiao et al., 2019). They can also reach customers that might have been unserved due to physical or geographical constraints (Ogilvie et al., 2018), and as a
result develop supplier-customer relationships more effectively than in a traditional environment (Quinton and Wilson, 2016, Itani et al., 2017).

According to the above-mentioned research, and in line with Social Presence Theory, SMS presence enhances business relationships (Kaplan and Haenlein, 2010, Ou et al., 2014, Chong et al., 2018, Pavlou, 2003). The impact of SMS presence on indicators of brand relationship strength in B2B settings, however, has not been examined thus far. Notwithstanding, it has been noted that, despite physical separation, online brand presence can contribute to a perception of intimacy and being close (Ou et al., 2014). Similarly to physical presence, therefore, SM presence contributes to the development of customers’ better understanding of supplier brands (Andzulis et al., 2012) which reveals overall commitment towards relationships and leads to relationship enhancement (Kaplan and Haenlein, 2010). Finally, presence has been found to enhance customers’ perception of need satisfaction (Ou et al., 2014, Kietzmann et al., 2011), which has positive impact on overall satisfaction with a supplier’s brand and, closely related to satisfaction, partner quality (Agnihotri et al., 2017).

Based on the above discussion, therefore, it is reasonable to assume that SMS presence has a positive impact on brand relationship strength indicators. Thus, it is hypothesised that:

**H1: Social Media Presence has a positive impact on B2B Brand Relationship Strength Indicators: (a) Commitment, (b) Intimacy, (c) Satisfaction and (d) Partner Quality**

The way brands use SMS is changing; it is moving from solely manifesting SMS presence, to brands actively interacting with their followers (Weber, 2009, Keinänen and Kuivalainen, 2015). It is not a surprise, therefore, that interactivity has been recognised as an essential activity of SMS use in a business setting (Swani et al., 2014, Wang et al., 2016b), and that it has become a core feature of social media marketing (Naylor et al., 2012). Thorbjørnsen et al. (2002) defines interactivity as dialogue between individuals through online communication.
channels, which encompasses perceptions of immediacy and intimacy. Accordingly, SMS interactivity refers to synchronized supplier-customer exchanges online (Ou et al., 2014, Quinton and Wilson, 2016). It aims to enhance interactions among SMS users (Foltean et al., 2018, Felix et al., 2017, Greenberg, 2010), mimic real-life face-to-face supplier-customer communication (Leek et al., 2016), and facilitate business relationships (Gefen and Straub, 2004, Kaplan and Haenlein, 2010, Quinton and Wilson, 2016, Agnihotri et al., 2012).

According to Swani and Brown (2011), B2B face-to-face interaction cannot be replicated online. The most recent research, however, challenges this notion (Itani et al., 2017, Andersson and Wikström, 2017, Murphy and Sashi, 2018), showing that B2B businesses adopt social media to develop and strengthen B2B relationships by engaging customers in interactive discussions online. Those online exchanges between supplier and customer are now recognised to be a key component of B2B marketing and branding practices (Itani et al., 2017, Centeno and Hart, 2012), and one of the reasons why SMEs use social media (Centeno and Hart, 2012, Odoom, 2017). Despite its importance however, the opportunities deriving from SMS interactivity to B2B brand relationship are yet to be discovered.

The main role of SMS interactivity is to develop the perception of intimacy between customers and suppliers, which enhances mutual understanding between both parties (Thorbjørnsen et al., 2002, Ou et al., 2014). Thus, interactivity is often linked to the concept of reciprocity, which refers to relationship for mutual benefit of parties involved (Quinton and Wilson, 2016). Supplier-customer reciprocal actions contribute to relationships, and particularly perception of partner quality, because their aim is to satisfy interests of both parties (Ou et al., 2014). Accordingly, interactivity, enables brands to meet customers’ expectations (Agnihotri et al., 2016), and plays a key role in demonstrating understanding and satisfying of customers’ needs (Dennis et al., 2008, Ou et al., 2014). Naturally, therefore, supplier-customer active participation on SMS has been found to have positive influence on
satisfaction (Casaló et al., 2008, Agnihotri et al., 2009, Hajli, 2014) and overall relationship performance (Trainor et al., 2014, Foltean et al., 2018). Finally, research has showed that interactivity can contribute to commitment to the brand relationship as it helps build long-lasting, high-quality relationships with customers (Teo et al., 2003, Ou et al., 2014). This is in line with Quinton and Wilson (2016) who, following Palmatier (2008), clarified that SMS can drive relationship quality, and especially commitment towards the relationship. Building on previous research therefore, it is hypothesised that:

\[ H2: \text{Social Media Interactivity has a positive impact on B2B Brand Relationship Strength} \]

\[ \text{Indicators: (a) Commitment, (b) Intimacy, (c) Satisfaction and (d) Partner Quality} \]

Social media is a communication-rich environment, and thus building brand relationships via social media is more complicated than simply encouraging more interactions (Fournier and Avery, 2011, Hudson et al., 2016). This is because, empowered by SMS technological capabilities, customers become active in initiating communication with the brand (Quinton, 2013, Hajli, 2014, Agnihotri et al., 2016, Wang and Kim, 2017, Foltean et al., 2018). This active involvement of customers requires brands to respond to comments and solve problems online (Zaheer and Zaheer, 1997, Ou et al., 2014, Hudson et al., 2016, Leek et al., 2016). In the literature, such activities by suppliers are referred to as responsiveness – the ability to respond proactively to information within the SMS environment (Yang et al., 2016). Hudson et al. (2016) note that, by responding to social media comments and solving customers’ problems, brands are able to enhance supplier-customer relationships.

SMS responsiveness is particularly important for SMEs, which find it easier to use online communication tools to ask supplier questions, report problem and express their needs. The importance of proactive involvement of SMEs in online communication is confirmed by Centeno and Hart (2012) and has been most recently acknowledged in B2B settings (Itani et
al., 2017), where suppliers’ ability to respond to customers’ queries and solve problems has been recognised as an important component in relationship building (Ogilvie et al., 2018). Brands’ responsiveness has been found to contribute to customers’ perception of partner quality, which includes relationship failure avoidance and brands’ ability to solve problems (Sirdeshmukh et al., 2002, Aaker et al., 2004, Ahearne et al., 2007, Schivinski and Dabrowski, 2015, Schivinski and Dabrowski, 2016). Furthermore, resolving problems and reacting to emerging needs enables greater customer satisfaction (Agnihotri et al., 2016, Foltean et al., 2018); it also indicates B2B brands’ reliability, supportiveness, and commitment to serve long-term customer interests (Sirdeshmukh et al., 2002, Ou et al., 2014, Dick and Basu, 1994). Finally, responsiveness has been found to enhance perceptions of intimacy; this is because abilities of conflict resolution are important qualities of intimate relationships (Stern, 1997). Based on the above discussion, it is hypothesised that:

**H3: Social Media Responsiveness has a positive impact on B2B Brand Relationship Strength Indicators: (a) Commitment, (b) Intimacy, (c) Satisfaction and (d) Partner Quality**

**(INSERT FIGURE 1 ABOUT HERE)**

**Methodology**

To test the hypotheses outlined in Figure 1, an online survey was conducted using the FAME database. The FAME database provides a comprehensive set of data and contact details to subscribed members of registered businesses in the UK and Ireland (see: www.bvdinfo.com). The questionnaire was divided into three parts. Firstly, screening questions were included to ensure that respondents: (1) use social media, (2) work for a firm that buys goods/services from other firms, and (3) follow suppliers on social media. Secondly, to test the research hypotheses, items were adopted from Aaker et al. (2004) to measure brand relationship
commitment, intimacy, and satisfaction, while items were adopted from Thorbjørnsen et al. (2002) to measure partner quality. Additionally, the study adopted items from Ou et al. (2014) to measure customers’ perceptions of the suppliers’ social media presence and interactivity, while items from Agnihotri et al. (2016) were used to measure customers’ perceptions of the suppliers’ social media responsiveness. All items were modified to fit the study’s context, and were measured on a 7-point Likert scale (Table 1 provides a full list of the items used in the study). The third part included some demographic questions.

(INsert table 1 about here)

The survey was administered to UK-based small/medium-sized enterprises (SMEs) with up to 250 employees, as these represent approx. 99.9% of all UK businesses (Rhodes, 2018). Since supplier-customer relationships are key in B2B markets, particularly for SMEs (Copp and Ivy, 2001, Broekemier et al., 2015), it was deemed appropriate to examine the perceptions of representatives from those firms about the impact of their supplier’s SMS use on the four brand relationship strength indicators.

In total, 200 usable responses were collected (please see Table 2 for sample characteristics). The respondents (52% males, 47% females, with most (30%) being 51+ years old) confirmed that they use SMS for professional reasons, while the most popular SMS respondents used for business (not personal) purposes were Twitter (71.5%), LinkedIn (67.5%), and Facebook (38.5%). Respondents worked in sectors ranging from professional services to logistics and agriculture, with 56% of respondents stating their company had over 25 years of work experience in their particular sector and 48.5% of respondents had more than 5 years of work experience in their firm. Almost 8 in 10 identified themselves as decision makers. The sample
included Directors/General Managers (33.5%), Marketing Directors/Managers (28%), Sales Directors/Managers (6.5%), Social Media Directors (9.5%), and other positions (22.5%).

(INsert Table 2 About Here)

Results

Preliminary Analysis

Before the hypothesised model (Figure 1) was specified and estimated using structural equation modelling (SEM), a series of steps were followed. Firstly, as shown in Table 1, scale reliability was assessed through calculating Cronbach’s alpha coefficient. All scales were above the critical value of .7 (Pallant, 2013), hence can be considered as reliable measures of their corresponding variables. Additionally, an exploratory factor analysis (EFA) was conducted to establish if the four indicators of brand relationship strength do indeed overlap, which could result in misleading findings. The results indicate that using the principal component analysis and varimax rotation (Pallant, 2013), the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.900, exceeding the cut-off value of 0.6 with a ρ-value < .0001 for Bartlett’s Test of Sphericity (Kaiser, 1970). All items loaded well on constructs they were intended to measure, averaging above .7 and there was no evidence of cross loading. Thus, the four constructs are individual indicators of brand relationship strength.

Moreover, a confirmatory factor analysis (CFA) was conducted using AMOS Graphics utilising the maximum likelihood estimation to assess the internal consistency of the scale items. The CFA (also referred to as the measurement model) is often considered the first step of structural equation modelling before specifying and estimating the structural model. The results of the CFA indicated no evidence of cross loading. The fit statistics outline adequate
goodness of fit ($\chi^2_{(329)} = 549.823$, $p = .001$, $\chi^2$/df = 1.67, RMSEA = .058, RMR = .083, SRMR = .057, CFI = .937). Additionally, in line with the fit statistics, all loadings were adequate and significant ($p < .05$).

In addition, following Fornell and Larcker (1981), further analysis satisfied discriminant and convergent validity. The results indicated that: (1) all loadings were significant ($p < .001$), (2) the composite reliability for each construct exceeded the recommended level of .70, and (3) the average variance extracted (AVE) for each construct was above the recommended benchmark of .50. Additionally, the AVE values were greater than the square of their correlations, thus supporting discriminant validity (Hair et al., 2010).

Lastly, common method bias and multicollinearity were checked to ensure the research did not produce misleading results. Harman’s single factor test as well as Podsakoff et al. (2003) approach were calculated to assess common method bias. All factors in the model were presented in Harman’s single factor test; the variance explained by the single factor was 32.7%, lower than the threshold of 50%. Furthermore, following Podsakoff et al. (2003), a common latent factor was introduced to the model in AMOS Graphics. The latent factor was assigned all the items (indicators) of the principal constructs in the model as an extension of the CFA. The results outlined that the common latent factor explained an average variance of 0.26. Thus, given the results of the common latent factor and Harman’s single factor test, common method bias is unlikely in the data. Further, multicollinearity of all the variables in the model were checked using the variance inflation factor (VIF). The results illustrated that the highest value recorded was 2.26, which affirms that multicollinearity was not violated when compared to the cut-off point of 10 (Hair et al., 2010).

Structural Equation Modelling (SEM)
SEM with an analysis of moment structures takes a confirmatory approach to SEM. Due to the good fit of the CFA measurement model and subsequent analyses, the second stage of the SEM process took place by specifying and estimating the hypothesised structural model shown in Figure 1. The fit statistics of the structural model showed reasonable fit ($\chi^2(1) = 38.040, p < .05, \chi^2/df = 38.04, \text{RMSEA} = .431, \text{SRMR} = .0821, \text{RMR} = .082, \text{CFI} = .945, \text{NFI} = .945, \text{GFI} = .953$) and provided supporting evidence for the hypothesised relationships. The RMSEA value in the model shows poor fit, however models with low degrees of freedom can have artificially large values from the RMSEA calculation, therefore, following Kenny et al. (2015), the RMSEA value should be ignored. The standardised path coefficient regression weights and statistical significance can be seen in Table 3.

The results in Table 3 show some strong regression coefficients and statistically significant relationships ($p < .05$), thus supporting some of the research hypotheses. The results assert that social media presence has a significant influence on customers’ commitment ($\beta = .200, p < .05$), intimacy ($\beta = .314, p < .001$), satisfaction ($\beta = .286, p < .001$) and perceived partner quality ($\beta = .259, p < .001$), therefore supporting H1a, H1b, H1c and H1d. This suggests that firms expect to see their suppliers being active within the social media space, posting status updates and providing valuable content.

Moreover, suppliers’ interactivity on SMS influences perceived partner quality ($\beta = .206, p < .05$), supporting H2d. However, a supplier’s level of interactivity does not influence customer’s commitment, intimacy, or satisfaction (H2a, H2b, H2c not supported). This outlines that while interaction in SMS may make a customer feel valued, the interaction does not influence their level of satisfaction, commitment and intimacy in their relationship with
their supplier’s brand. Given that business relationships may involve the sharing of private and sensitive information, interaction in the open social space may not be a priority in a customer’s relationship with a B2B brand.

Furthermore, the results illustrate that social media responsiveness has a significant influence on brand relationship commitment ($\beta = .201, p < .05$), supporting H3a. However, suppliers’ responsiveness on SMS does not significantly influence other key indicators of brand relationship strength including intimacy, satisfaction, or partner quality (H3b, H3c, and H3d not supported). Therefore, in general, customers may not use SMS to seek a quick response or expect a quick response through such a communication channel. Instead, they may turn to other channels such as the telephone or email for a more immediate response, thus illustrating why the responsiveness on SMS does not influence other key indicators of brand relationship strength.

While the results in Table 3 provide interesting insights, given the differences in each social media platform, it is crucial to also control for social network type. As the results indicated that differences exist between the different types of SMS, a multi-group analysis was conducted. The subsequent section discusses these results.

*Multi-group Analysis – Social Media Platform*

As previously outlined, the most popular SMS for business (not personal) purposes amongst respondents were Twitter (71.5%), LinkedIn (67.5%), and Facebook (38.5%). Given the differences in the purpose of each of these platforms (i.e. Twitter being a micro-blog network, LinkedIn a professional network, and Facebook a ‘social focused’ network), following the Karikari et al. (2017) method, multi-group analyses in AMOS Graphics were conducted to assess the model across each individual platform. Such analysis provides insight into any differences across SMS.
However, before such analysis can take place, it is important to determine equivalence across each group (Twitter, LinkedIn and Facebook), thus measurement invariance was conducted. The purpose of this test is to ensure that the same construct is being measured across the specified groups. Measurement invariance was calculated by assigning constraints to each group; following this, the difference in the CFI value between the constrained model and the configural model was calculated. A CFI difference value of < .01 was presented, thus equivalence between groups can be assumed [see: Cheung and Rensvold (2002)]. Then, a chi square difference test was conducted between the constrained model and the unconstrained model. The results revealed a significant difference between the models ($X^2_{(24)} = .41, p = < .05$). However, this only informs that there is a difference between each model. Thus, individual path analysis is required to assess if differences exist between each path within each social media platform.

(INSERT TABLE 4 ABOUT HERE)

The path analysis shown in Table 4 outlines significant differences in the hypothesised relationships across the three SMS (Twitter, LinkedIn, and Facebook). Social media presence plays an important role across all three SMS for intimacy, satisfaction and partner quality; however, the results outline that – while insignificant in relation to Twitter and Facebook – social media presence has a significant influence on brand relationship commitment on the LinkedIn platform. This result may be explained by the purpose of the LinkedIn social network, where presence on such a platform offers businesses a connection, therefore possibly building a closer bond than the one-way relationship often found on Twitter and Facebook. Additionally, given that LinkedIn is a B2B-focused professional platform, the
expectation of a supplier having presence on LinkedIn may offer a sense of security and transparency to the customer, who in turn shows more commitment in the relationship. Moreover, in a similar vein, the results posit that social media interactivity has a significant influence on partner quality on the LinkedIn platform, while no such relationship is found on either Twitter or Facebook. Thus, the results pertain that the ability to communicate or seek information from a supplier when needed within a professional domain (i.e. a professional network) enhances customers’ perceptions about the B2B partner quality. Given that Twitter and Facebook are less professional-focused SMS in comparison to LinkedIn, this may explain the insignificant results in such platforms.

Furthermore, the results assert that while social media responsiveness does not influence any of the indicators of brand relationship strength on the LinkedIn platform or the Facebook platform, a significant influence is found between social media responsiveness on brand relationship commitment and satisfaction within the Twitter platform. Many firms adopt Twitter as a customer service channel and a way in which firms (or customers) can seek responsive customer support. Thus, given the expectation that customer service support can be gained from the Twitter platform, it is fitting that social media responsiveness influences brand relationship satisfaction. Additionally, based on the works of Parasuraman et al. (2005), providing a responsive customer service has been noted as a key dimension of service quality within the online environment (McLean and Osei-Frimpong, 2017). Thus, given customer service is often provided in the Twitter platform, the results indicate that responding to such interactions on Twitter increases customers’ commitment towards the supplier brand.

**Discussion & Implications**
Digital technologies have profound impact on businesses (Cortez and Johnston, 2017, Foltean et al., 2018). SMS, in particular, present many benefits and opportunities for businesses operating both in B2C and B2B markets. Research examining SMS use and its impact on B2C firms is extensive, yet, surprisingly, limited empirical academic research has been conducted within B2B settings (Lacka and Chong, 2016, Agnihotri et al., 2016, Chong et al., 2018, Foltean et al., 2018). This study contributes to this emerging research stream by providing insights into the impact of SMS use on B2B supplier-customer relationship. Specifically, through quantitative research with UK-based SMEs being customers of B2B firms, this study reveals the impact of B2B firms’ SMS presence, interactivity and responsiveness on key indicators of relationship strength between a supplier’s brand and a customer, namely intimacy, commitment, satisfaction, and partner quality.

This research indicates that SMS presence plays a key role in B2B supplier-customer relationships. The findings reveal that SMS presence has significant influence on commitment, intimacy, satisfaction and partner quality. This is in line with previous research, which notes that SMS presence has a positive impact on business relationships (Kaplan and Haenlein, 2010, Ou et al., 2014, Chong et al., 2018), particularly in B2B settings (Quinton and Wilson, 2016, Itani et al., 2017, Ogilvie et al., 2018). B2B brands should aim to establish and maintain their presence on Twitter, LinkedIn and Facebook that, as this study reveals, are the three sites used by customers to follow B2B suppliers’ brands. This multi-platform presence will drive customer experience (Pozza, 2014, Iankova et al., 2018) and will contribute to relationship building. This is further confirmed by Hudson et al. (2016), who revealed that presence has a positive impact on marketing practices, and here, in particular, on customer relationship management (CRM) activities. It is thus noted that B2B brands should pay particular attention to their presence on LinkedIn, which, as revealed by this study, increases their customers’ commitment to their relationship with the supplier’s brand.
LinkedIn presence, manifested through posts and updates, therefore, leads customers to perceive the supplier’s brand as being close and being available, which enhances customers’ commitment to maintain the business relationship.

Although the findings indicate that SMS presence is important for brand relationship building, SMS interactivity and responsiveness are also important. This study revealed that SMS interactivity has a positive influence on perceived partner quality. This indicates that customers value the two-way interaction with suppliers on SMS, and said interaction enhances their perception of the supplier’s partner quality. Thus, this study echoes Palmatier (2008) as well as Quinton and Wilson (2016) highlighting the impact of SMS interactivity on perceived partner quality (i.e. the customer’s appraisal of the extent to which the B2B brand is reliable and predictable in fulfilling its role, follows the rules of the relationship, delivers what is expected, and is accountable for its actions (Fournier, 1998, Aaker et al., 2004)). The findings also reflect previous research conducted in B2C settings, which has showed that interactivity can help firms build high-quality relationships with them (Teo et al., 2003), as it assists in developing mutual understanding (Ou et al., 2014). This study highlighted that SMS interactivity is particularly important if it takes place on LinkedIn as opposed to Twitter and Facebook, which yet again confirms that LinkedIn is the preferred SMS for supplier-customer relationship building. Through the course of this research, this paper revealed that LinkedIn interactivity enhances customers’ perceptions of partner quality in B2B markets.

Furthermore, this study confirmed findings of previous research (Agnihotri et al., 2016, Foltean et al., 2018) that SMS responsiveness has a positive impact on brand relationship commitment. Interestingly, however, this research showed that responsiveness positively influences satisfaction as well, but only on Twitter. This may be a result of firms’ recent drive to use Twitter as a customer service channel where customers can seek responses from suppliers (Culotta and Cutler, 2016, lankova et al., 2018). The positive impact of Twitter
responsiveness on satisfaction is in line with Agnihotri et al. (2016), who also identified a positive impact of social media responsiveness on customers’ satisfaction in B2B contexts. Finally, this paper concludes by stating that SMS use is key in supplier-customer relationships in B2B settings. Although there are observable differences between different SMS and their impact on key indicators of brand relationship strength, it is noted that SMEs use SMS to follow updates, interact with B2B supplier brands, and ask questions, all of which strengthen the relationship with the supplier’s brand. The study’s findings derive a number of theoretical and practical implications, as outlined below.

Theoretical and Managerial contributions

First, this research contributes to the emerging research stream on SMS use and its impact on B2B firms, and particularly on supplier-customer relationships. Although SMS have been recognised to create significant opportunities for B2B supplier-customer relationships, limited research exists in this area (Quinton and Wilson, 2016, Salo, 2017). Previous research has, therefore, called for studies that will provide insights into SMS use and its impact on supplier-customer relationships (Salo, 2017, Quinton and Wilson, 2016, Guesalaga, 2016). This research addresses this call.

Second, this paper has provided a more detailed understanding of how exactly interactions on online channels (SMS) can facilitate relationship building goals, by shedding light on the consequences of different types of interactions on SMS platforms on key aspects of B2B supplier-customer relationships. Specifically, SMS use involves a complex web of activities that have the potential to facilitate or hinder relationship building with customers (Smith and Gallicano, 2015, Mehmet and Clarke, 2016). Indeed, firms’ SMS use does not only restrict to maintaining presence via posting regular updates, but also involves interacting with customers (e.g. via seeking feedback, setting quizzes, etc.) as well as responding to
customers’ questions. This research has examined in depth how SMS presence, interactivity and responsiveness each influence four key indicators of brand relationship strength, namely, commitment, intimacy, satisfaction and partner quality. Moreover, the findings of this study provide detailed insight about further complexities that firms using SMS face when interacting with their customers on multiple SMS platforms. In particular, the study has revealed differences among Facebook, Twitter and LinkedIn in regards to the impact of presence, interactivity and responsiveness on those four indicators.

Third, this research was conducted on a sample of B2B SMEs, which use social media to engage with their suppliers. Centeno and Hart (2012) remark that SMEs tend to engage in non-traditional branding practices, however thus far empirical research on B2B SMEs has been somewhat scattered. Via exploring the context of the UK-based B2B SMEs and revealing how SMS use contributes to the B2B relationship building in developed economies, the findings of this research address calls for studies in B2B SMEs branding practices in different economic contexts (Odoom, 2017).

The findings of this research offer B2B firms much needed practical guidance into SMS use in the effort to enhance B2B supplier-customer relationships. The growing body of research, including the current study, strongly suggests that a purposeful SMS strategy is needed. Specifically, according to Guesalaga (2016), B2B firms are increasingly using SMS but they still have little understanding about its consequences, and thus they lag behind in the race to leverage social media for business purposes (Michaelidou et al., 2011, Broekemier et al., 2015). The findings presented in this paper confirm that, in today’s environment, B2B firms can no longer be casual about SMS. Specifically, there are three practical implications emerging from this study. First, B2B firms are encouraged to carefully design their social media strategies and work actively to develop their presence on Facebook, LinkedIn, and Twitter, as those are the SMS sites used by customers to follow suppliers’ brands. Second,
B2B brands are encouraged to develop their presence and interact with their customers on LinkedIn in particular, if they wish to enhance customers’ brand commitment and perceived partner quality. Third, they should also pay particular attention to Twitter and use it to solve customers’ queries and problems, which, as revealed in this study, will further enhance customers’ brand relationship commitment.

Limitations and future research directions

While this study is one of the first to examine SMS use on key indicators of brand relationship strength in B2B settings, the research has some limitations that open avenues for future research. First, in the study’s conceptualisation and operationalisation of the B2B brand relationship strength, interaction effects between individual indicators have not been considered. For example, future research could examine the impact of SMS use on perceived partner quality and how this may subsequently lead to brand relationship commitment. Future research could also examine other aspects of supplier-customer relationships, such as trust, or willingness to recommend the supplier’s brand to others. Second, the research was conducted on a sample of UK-based B2B SMEs firms with varied degrees of SMS use. Therefore, further research is needed to explore the extent to which the findings presented in this paper are generalized beyond this setting. Future research could examine the findings of the present research with B2B SMEs based in a range of settings that vary in terms of institutional, cultural or economic environments. For instance, the comparison between countries where use of SMS is more or less advanced may reveal differences in terms of the importance of certain dimensions of SMS use on brand relationship strength. Similarly, further examination of the current study’s findings with B2B SMEs based in emerging economies would be particularly useful. This is because those firms
have limited access to resources, hence can potentially benefit substantially from the use of SMS. Indeed, existing research has acknowledged that empirical studies on those firms’ branding and customer relationship management practices are much needed (Odoom, 2017).

Third, as revealed, there are differences in the impact of various types of SMS on the four indicators of brand relationship strength, hence, further research examining such differences among LinkedIn, Twitter, Facebook and others would be useful. Research extending the present study could consider other aspects of SMS use (for example, direct messaging), and examine their impact on relationships customers form with B2B brands. We also encourage research, which would further explore B2B SMS use by making a distinction between active and passive presence as well as standardised and customised communication. Here, qualitative exploration would be most welcome to unveil the complexity of SMS use in B2B settings.

Finally, the current study did not directly account for the level of engagement between the supplier and the customer on social media (e.g. frequency with which the customer visits the supplier’s social media profile, extent of monitoring the supplier’s social media activities, etc.). Future research could explore this further, as increased levels of engagement may lead to positive relationship outcomes. Considering the increasing importance of SMS in B2B contexts, such research is much needed.
References


