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Customer relationship management capabilities and social media technology use: Consequences on firm performance[☆]

Florin Sabin Foltean, Simona Mihaela Trif*, Daniela Liliana Tuleu

Department of Marketing and International Economic Relations, Faculty of Economics and Business Administration, West University of Timisoara, V. Parvan 4, 300223 Timisoara, Romania

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ABSTRACT

Despite the importance of institutional factors in adopting new technologies, the role of these drivers in the use of social media technology (SMT) to strengthen customer relationship management (CRM) capabilities and improve company performance has not yet been investigated. First, drawing from institutional theory and capabilities theory, we analyze the influence of customer coercive pressure and competitor mimetic pressure on SMT use. Second, we investigate the mediator role of CRM capabilities in the relationship between SMT use and firm performance. The study's results reveal that both institutional factors drive SMT use, their effects varying according to the size of the firm, its innovativeness, the sector and the market in which it operates. CRM capabilities were found to only indirectly mediate the relationship between SMT use and firm performance. From the study results, we derive managerial recommendations for the effective use of SMT.

1. Introduction

Customer relationship management (hereafter, CRM) has become an important stream of marketing research over the past two decades. Over time, this concept has evolved from a narrow understanding of CRM as a specific technological solution to a broadly "strategic approach that is concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments" (Payne & Frow, 2005, p. 168). Therefore, the implementation of the CRM process has the potential to significantly increase firm performance at the stage of customer relationship maintenance (Reinartz, Krafft, & Hoyer, 2004) and to predict new product success (Ernst, Hoyer, Krafft, & Krieger, 2011). Zablah, Bellenger, and Johnston (2004) argued that approaching CRM from the capabilities perspective encourages companies to invest in new resources that enhance the effectiveness and efficiency of this process. Furthermore, previous empirical research provides evidence that investment in CRM technology enhances CRM capabilities which have a positive influence on business performance (Wang & Feng, 2012) and margin growth rate (Morgan, Slotegraaf, & Vorhies, 2009).

Digital technologies are changing markets, business environments and business models (Cortez & Johnston, 2017) as well as marketing communications paradigm (Mangold & Faulds, 2009). In this context, new media technologies that offer companies new ways to reach,

interact with and customize communications with customers are particularly relevant for the CRM process (Hennig-Thurau et al., 2010). The huge amount of content created and shared through social media has a major impact on consumer knowledge, attitudes and behaviors (Mangold & Faulds, 2009). Therefore, empowered customers assume a more active role in marketing exchanges by engaging in two-way interactions with businesses and other customers.

The social media phenomenon of creating, modifying, sharing, and discussing Web-based content about companies and products has the potential to affect firm survival, reputation, and performance (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Although social media technology (hereafter, SMT) (e.g., social networks, blogs, online communities, videosharing, podcasts and wikis) has the potential to change business processes, improve customer relationships, and raise operational performance, marketers do not yet fully recognize social media's potential to create new business opportunities or threats (Cortez & Johnston, 2017). However, companies have only recently begun to be aware of the business impact of SMT (Paniagua & Sapena, 2014). To maintain their competitiveness, organizations must manage SMT with the aim of implementing their strategies and increasing business performance (Wang & Kim, 2017). Despite this, the business performance impact of SMT use remains underexplored. However, it is important to mention that Paniagua and Sapena (2014) found a positive influence of social media on firm share value but only after a critical threshold of followers is reached.

E-mail addresses: florin.foltean@e-uvt.ro (F.S. Foltean), simona.trif@e-uvt.ro (S.M. Trif), daniela.tuleu@e-uvt.ro (D.L. Tuleu).

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^{*} Corresponding author.

Although social media marketing (hereafter, SMM) seems to be relevant and valuable both for B2B and B2C organizations (Siamagka, Christodoulides, Michaelidou, & Valvi, 2015), only in recent years have these interactive communication technologies begun to be adopted and used in the B2B context (Lacka & Chong, 2016). While successful SMT adoption supposes a deep understanding of the strategic and operational issues of this process, many executives lack knowledge and/or the ability to develop SMT adoption and integration strategies in business processes (Kietzmann et al., 2011). Even though marketing managers must understand the practical issues of SMT adoption and management processes, many of the previous studies have limited themselves to a theoretical perspective on this phenomenon (Bianchi & Andrews, 2015). However, some of the previous research provides empirical evidence regarding the goals of using SMT and the barriers in adopting these technologies (Michaelidou, Siamagka, & Christodoulides, 2011), the factors that determine SMT adoption (Lacka & Chong, 2016; Siamagka et al., 2015), and SMT's contribution to the development of new CRM capabilities (Trainor, Andzulis, Rapp, & Agnihotri, 2014; Wang & Kim, 2017).

The power of SMT to enable CRM by engaging customers in value co-creation and brand building is one of the main challenges for marketing managers (Leeflang, Verhoef, Dahlström, & Freundt, 2014). To help managers to cope with this challenge, understanding the factors that determine organizations to adopt SMT and the effect of using these technologies on CRM capabilities has become an important research topic. In this direction, the technology acceptance model (hereafter, TAM) and the resource-based view (hereafter, RBV) have been used as theoretical lenses in the previous research to investigate the organizational determinants of SMT adoption (Siamagka et al., 2015). According to RBV, the way in which technology-enabled capabilities turn into competitive advantages is influenced by the adoption and implementation process of new technologies (Teece, Pisano, & Shuen, 1997). Although previous research has devoted significant efforts to develop the conceptual domain of social media, SMT use and its impact on firm capabilities and business outcomes require further theoretical and empirical research (Salo, 2017). The previous research has mainly focused on the internal drivers of SMT adoption, while the external drivers have thus far been neglected. To the best of our knowledge, the factors of the institutional environment that trigger SMT adoption and use by organizations have not yet been investigated. To fill this knowledge gap, we investigate: a) the influences of customer coercive pressure and mimetic competitor pressure on SMT use; b) the mediating role of CRM capabilities in the relationship between SMT use and firm performance. The institutional theory and RBV perspective provide the theoretical foundations of this research.

This research contributes to the CRM and SMM literature through its key findings, which are relevant from both the theoretical and managerial perspectives. The first contribution to SMM theory is in providing empirical evidence that customer coercive pressure and mimetic competitor pressure act as the institutional drivers of SMT use. Second, this study provides evidence that SMT use enhances existing CRM capabilities. Third, an indirect-only mediator role of CRM capabilities in the relationship between SMT use and firm performance was found. Finally, four post hoc analyses revealed that customer coercive pressure drives SMT use in the case of small firms, firms with higher levels of innovativeness, firms that provide services, and firms that operate in B2C markets, while competitor pressure drives SMT in the case of medium and large enterprises, manufacturing companies, those that work in the B2B market and those with low levels of innovation. From a managerial perspective, this research has implications for the architecture of marketing information systems, strategy-technology alignment decisions and the CRM capabilities development process.

The paper is organized as follows. First, we review the previous literature related to the social media concept, drivers of SMT use, CRM capabilities, and their consequences on firm performance. Then, we develop the research hypotheses and conceptual model. The next section presents the methodological issues of this research, i.e., the sample,

measures, analytical strategy, measurement model, and structural model evaluation. Finally, based on the results of the hypotheses tests, we draw conclusions, managerial implications, limitations and further research directions.

2. Theoretical background and hypotheses development

2.1. SMT use

The early SMM literature focused on developing a common understanding of the concept of social media, its architecture, tools and benefits that organizations could derive from using SMT. It is widely accepted by both academics and practitioners that social media consists of a "group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of User Generated Content" (Kaplan & Haenlein, 2010, p. 61). To explain how organizations could use this new technology, Kietzmann et al. (2011) identified seven functional building blocks of social media platforms, i.e., identity, conversations, sharing, presence, relationships, reputation, and groups. In the last two decades, a variety of tools have been developed for use in the digital environment. The main types of social media tools that companies can use to manage their interactions with all stakeholders include blogs, social networking sites, collaborative projects, content communities, virtual social worlds, and virtual game worlds (Kaplan & Haenlein, 2010). The adoption and effective use of these tools by business organizations to derive benefits from the use of SMT is a major challenge. More specifically, the usage of SMT facilitates interactions, enables collaboration between business partners and customers, and creates new business models and new ways of creating value (Nath, Nachiappan, & Ramanathan, 2010). Furthermore, the new many-to-many model of interactive communication enabled by SMT has switched the locus of value creation and the locus of power from the firm to the consumer (Berthon, Pitt, Plangger, & Shapiro, 2012). As a result, consumers assume an active role as cocreators of value (Hennig-Thurau et al., 2010; Vargo & Lusch, 2004) by creating, rating, and sharing content and by interacting and collaborating with firms in shaping their experience (Wang & Kim, 2017). To remain relevant and competitive in this new market landscape, firms should be able to manage the social media conversation (Mangold & Faulds, 2009) and the customer experience.

Companies use SMT with the goal of creating awareness, acquiring new customers, engaging with customers, creating interactions and conversations with actual and potential customers, creating word-of-mouth, enhancing brand image, building a leadership role within the industry, creating relationships with customers and other stakeholders, and network formation (Järvinen, Tollinen, Karjaluoto, & Jayawardhena, 2012; Michaelidou et al., 2011; Quinton & Wilson, 2016; Salo, Lehtimäki, Simula, & Mäntymäki, 2013). Studying marketing practice, previous empirical research provides evidence that companies operating in consumer markets use social media tools mainly to influence customer decisions, to support brands and to generate word-of-mouth (Christodoulides, 2009; Trusov, Bucklin, & Koen, 2009; Wang, Yu, & Wei, 2012).

Furthermore, several differences have been identified between B2B and B2C companies regarding SMT adoption and use (Swani, Milne, Brown, Assaf, & Donthu, 2017). First, the rate of adoption is slower in the case of B2B organizations (Michaelidou et al., 2011) because marketers tend to perceive social media platforms as irrelevant in this context (Lacka & Chong, 2016). Second, the influence of customercentric management systems on social CRM capabilities is stronger in B2B companies compared to those operating in a B2C context (Trainor et al., 2014). Third, the use of emotional appeals and corporate brand names in tweets is more frequent in B2B companies than in the B2C setting (Swani, Brown, & Milne, 2014). Fourth, the target of SMT use is professionals in the B2B context, while B2C salespeople's target is the final user or consumer (Moore, Hopkins, & Raymond, 2013). However, there are other sources of differences between B2B and B2C

organizations that require further research. For example, some internal and external drivers of SMT use could be more prominent in some market settings more than others.

Three strategies can be used in SMT implementation: a bottom-up strategy, a middle-out approach and a top-down strategy (Guinan, Parise, & Rollag, 2014). These strategies rely on different actors who use SMT with various aims. First, the bottom-up strategy encourages employees to find innovative ways of using these technologies to increase work productivity. Second, the middle-out strategy implies that SMT is used by middle managers to improve collaboration at the team level. Third, the top-down strategy suggests that top executives use these technologies to strengthen organizational culture. The choice of one SMT implementation strategy is based on several contingencies such as the organization's mission, culture, organizational processes and industry (Guinan et al., 2014).

Despite the relevance and benefits that can be derived by B2B and B2C companies (Siamagka et al., 2015), SMT adoption is not universal (Salo, 2017). At the beginning of this decade, a small percentage (under 30%) of small and medium enterprises reported SMT adoption (Jussila, Kärkkäinen, & Aramo-Immonen, 2014; Michaelidou et al., 2011). To explain this situation, previous empirical research identified barriers that prevent SMT adoption, e.g., a lack of staff understanding and technical skills as well as the cost of implementation of such technological solutions (Michaelidou et al., 2011).

The implementation of SMT generates various changes in organizations regarding interactions with customers (Siamagka et al., 2015) and other stakeholders, business and revenue models (Leeflang et al., 2014), and marketing processes such as brand management (De Vries, Gensler, & Leeflang, 2012), CRM, and sales (Agnihotri, Kothandaraman, Kashyap, & Singh, 2012; Andzulis, Panagopoulos, & Rapp, 2012). To successfully cope with such challenges, organizations must develop their learning and innovative capabilities.

The impact of SMT use on the effectiveness and efficiency of marketing processes and firm performance has been proven by the evidence provided by several previous empirical studies. For example, Trainor et al. (2014) found that SMT use has a positive influence on customer relationship performance through social CRM capabilities. Furthermore, Rapp, Beitelspacher, Grewal, and Hughes (2013) conclude that SMT use has a positive impact on brand performance and retailer performance, while Paniagua and Sapena (2014) provide evidence that, after a critical threshold of followers, SMT use has a positive influence on the value of publicly traded companies. Regarding the sales process, Agnihotri, Dingus, Hu, and Krush (2016) found that SMT use has a positive influence on customer satisfaction by enhancing sales representatives' responsiveness, while Itani, Agnihotri, and Dingus (2017) found a positive influence of SMT use on sales performance by enhancing sales representatives' adaptive behavior.

The prior literature provides valuable knowledge about the internal drivers and organizational benefits of SMT adoption and use in the business context. However, the external antecedents of SMT use and its consequences on CRM capabilities and firm performance remain underexplored. Consequently, we investigate the influences of two institutional factors on the usage of SMT within the business context and develop our hypotheses regarding the effects of SMT use on CRM capabilities and firm performance.

2.2. Institutional determinants of SMT use

TAM (Siamagka et al., 2015) and RBV theory (Lacka & Chong, 2016) have been used in the previous research as the theoretical background to understand the phenomenon of SMT adoption by organizations. From these perspectives, several determinants of SMT adoption have been identified at the individual level such as perceived barriers (Lacka & Chong, 2016), perceived usefulness (suitability for marketing activities) (Siamagka et al., 2015), usability (ease of use and effectiveness) and utility (task accomplishment) (Lacka & Chong, 2016,

private SMT use, colleagues' support, and employees' personal characteristics (Keinänen & Kuivalainen, 2015). However, at the organizational level, several of the antecedents of SMT adoption have been identified. For example, while Siamagka et al. (2015) found that SMT adoption is influenced by organizational innovativeness, Brink (2017) identified open collaborative business model innovation and integrated leadership (that creates ownership and responsibility toward customers and partners) as the antecedents of SMT use in business processes.

However, the pace of SMT adoption by business organizations has not met expectations. A majority of companies have lagged in adopting SMT in their businesses (Brennan & Croft, 2012; Michaelidou et al., 2011) because they have neglected the potential business value, and they have not been proactive in this regard. Aiming to explain the SMT adoption process, the focus of the previous research has been on the individual and organizational factors that drive SMT adoption and use with the objective of increasing operational efficiency. In contrast, our research draws on institutional theory to explore this adoption process in the case of companies that follow the social media trend of maintaining their legitimacy and competitiveness. According to this theory, the factors related to the coercive, mimetic and normative pressures of the institutional environment in which organizations operate have the potential to influence the process of SMT adoption with the objective of gaining legitimacy (Krell, Matook, & Rohde, 2016). The role of institutional factors in the new technology adoption process has previously been analysed in the marketing literature in the context of ebusiness (Wu, Mahajan, & Balasubramanian, 2003) and customer response capability (Jayachandran et al., 2004). Based on our literature review, we found that the influence of institutional factors on SMT adoption and use in business organizations has not yet been investigated. To fill this knowledge gap, we used institutional theory as the theoretical background to formulate our hypotheses regarding the influence of customer coercive pressure and mimetic competitor pressure on SMT use.

To gain access to resources, obtain support and legitimacy, organizations must respect rules and be responsive to the requirements of their institutional environment (Scott & Meyer, 1983). Therefore, organizations must align their structure, processes and capabilities with an institutional pattern. According to institutional theory, organizational isomorphism will be attained through the mechanisms of mimetic pressure (compulsion to align with the behaviour of other organizations), normative pressure (compulsion to comply with the norms specified by professional or industry associations without the authority to enforce and sanction), and coercive pressure (compulsion to conform to the rules of stakeholders who have reward and sanction power) (Chen, Watson, Boudreau, & Karahanna, 2009; DiMaggio & Powell, 1983; Krell et al., 2016). As SMT use is not specified as a norm by professional or industry associations, we have chosen to focus our research on the influences of customer coercive pressure and mimetic competitor pressure to understand SMT adoption by organizations.

As many customers are users of social media platforms and as an increasing number of business players are adopting this new technology, we propose that institutional theory be used to explain the phenomenon of SMT adoption by organizations. In the previous research, the pressures exercised by customers and competitors have been found to act as a source of variance in e-business adoption (Wu et al., 2003). Customers can exercise coercive pressure through their demands and through rewards and sanctions to get their suppliers to use these technologies. To refer to this phenomenon, we use the concept of *customer coercive pressure*, which we define in terms of customer demands for an organization to comply with their requirements. In contrast, customer power refers to customers' perceived ability to influence a firm in an advantageous manner (Menon & Harvir, 2006) to undertake actions that it would not have otherwise undertaken (Boyd, Chandy, & Cunha Jr., 2010).

The previous research in various fields of business research has investigated the phenomenon of customer power. For example, in the

field of industrial economics, Porter (1980) used the concept of buyer power (the degree to which a buyer can negotiate higher value from a seller) as an environmental variable that could affect business profitability. In marketing, previous research has used the concept of customer power in understanding the relationship between market orientation and business profitability (Narver & Slater, 1990), in studying the relationship between market orientation and sales growth (Greenley, 1995), in understanding inter-firm relationships (Morgan & Hunt, 1994, Zhao, Huo, Flynn, & Yeung, 2008), in investigating how customers perceive social power in services (Menon & Harvir, 2006), and in the context of e-business adoption (Wu et al., 2003). More specifically, customers exercise power through requests that are addressed to the firm to adopt certain practices (Wu et al., 2003), requiring price concessions (Balakrishnan, Linsmeier, & Venkatachalam, 1996) and making investments in their areas of interest (Christensen & Bower, 1996). To explain this phenomenon, French and Raven (1959) identified five sources of customer power: knowledge or expertise (expert power), reputation (referent power), right to influence (legitimate power), compensation (reward power) and punishment (coercive power). In other words, perceived customer power is determined by a customer's perception of dependency on the provider (Grégoire, Laufer, & Tripp, 2010). As customers represent resources that drive a firm's survival and performance (Pfeffer & Salancik, 1978), the most frequent customer threat is to switch to another supplier (Frazier, 1999). Thus, the more power a customer possesses, the more likely the customer is to exercise such power in his or her relationships with sellers (Gaski & Nevin, 1985). It can therefore be deduced that firms feel pressured by powerful customers to undertake certain actions (Christensen & Bower, 1996), to invest financial, human, and technological resources to respond to their needs.

SMT empowers customers (Varadarajan et al., 2010) as they can create and share content about products and services that are offered on the market. In this context, requirements of empowered customers through their access to information could force organizations to adopt new technologies (Wu et al., 2003). To summarize, customers have proven to be more innovative in the early adoption of SMT, which empowers them both at the individual and the group/community levels. Furthermore, their demands can no longer be ignored by organizations. To remain relevant on the market, organizations must comply with customers' requirements regarding SMT use in CRM processes. Consequently, we expect the following:

H1. Customer coercive pressure will have a direct, positive, and significant influence on SMT use.

SMT has been approached as a disruptive technology that displays new and different features than existing communication technology as it is increasingly used by competitors across industries (Obal, 2017). The successful adoption of SMT by innovative organizations generates pressure to imitate this behavior by other companies. This means that mimetic competitor pressure, as an institutional factor, could determine SMT use by organizations that seek to gain legitimacy within an industry. From an institutional perspective, mimicry is considered a typical organizational response in the case of decision uncertainty with regard to determining the appropriate behavior to follow in certain circumstances (DiMaggio & Powell, 1983).

In the logic of institutional theory, mimetic competitor pressure occurs when a number of competitors within an industry take the same action, such as adopting a new technology, and thus exert the pressure of mimicry of these behaviors on competitors that do not want to be left behind (Abrahamson & Rosenkopf, 1993). Avoiding the risk of being left behind could encourage organizations to mimic the behaviors of competitors, influencing the evolution of industry technology.

In particular, successful adoption of SMT by innovative organizations creates a mimetic competitor pressure that will be perceived by other organizations and lead them to align with such new developments if their goal is to survive. Furthermore, high mimetic competitor pressures increase the pace of new technology adoption within an industry and the degree of diffusion of such technologies (Wu et al., 2003), and thus, organizations are put in the position of being forced to align to this technological trend to survive. To shed light on this phenomenon, Haunschild and Miner (1997) identified frequency-based, outcome-based, and trait-based mimic behaviors that are motivated by the number of competitors that adopt a certain behavior, the outcome of this new behavior, and the features that are shared with the competitors. In other words, to remain competitive and avoid the risk of losing their legitimacy within an industry, organizations should mimic their more innovative competitors' behavior of adopting SMT and using this technology in CRM processes. In line with this argument, we formulate the following hypothesis:

H2. Mimetic competitor pressure will have a direct, positive and significant influence on SMT use.

However, it is important to note that there is a risk that customer coercive power and mimic competitor pressure as legitimacy-oriented reasons of SMT adoption could lead to dissatisfaction with these technologies and a low level of use after their adoption (Obal, 2017). Consequently, it is recommended that organizations develop and implement a coherent SMM strategy and integrate it into their marketing strategy.

2.3. SMT use and CRM capabilities

SMT can be used in various business processes such as CRM, new product management, brand management, innovation management, and supply chain management. As marketers are challenged to develop lasting relationships with customers (Trainor, Rapp, Beitelspacher, & Schillewaert, 2011), we focus our research on the potential of SMT use to enhance the effectiveness of the CRM process (Michaelidou et al., 2011; Trainor et al., 2014). The usage of this new technology in business processes drives the development of new capabilities, which can contribute to improving a company's performance (Lee & Grewal, 2004).

CRM is a core marketing process that influences firm performance and survival. As a strategic approach, CRM aims to increase shareholder value by creating, developing, and maintaining win-win relationships with valuable customers and key stakeholders, integrating the relationship marketing perspective and information technology in this process (Payne & Frow, 2005). In this perspective, CRM capabilities have been conceptualized as the "firm's ability to effectively deploy relational resources" (Vorhies, Orr, & Bush, 2011, p. 739). Wang and Feng (2012) developed a three-dimensional structure of the CRM capabilities construct that comprises a customer interaction management capability, a customer relationships upgrading capability, and a customer win-back capability. These capabilities are cross-functional (Morgan, 2012), and they are the basis of firm sustainable competitive advantage (Day, 2000). Marketing theory and empirical evidence highlight the positive effects of CRM capabilities on firm performance (Wang & Feng, 2012).

SMT has the potential to transform markets, business environments, and business models. In this dynamic environment, the technological enhancement of CRM capabilities becomes a high managerial priority (Wang & Feng, 2012). Over the last decade, the digital transformation of CRM processes by integrating SMT has opened up new ways of managing customer interactions (Greenberg, 2010; Ramani & Kumar, 2008). From a RBV perspective, the use of SMT enhances existing CRM capabilities (Siamagka et al., 2015) through new ways of reaching customers and communicating with them (Hennig-Thurau et al., 2010).

Acquiring new customers and developing relationships has been revealed as the most important goal of using social media platforms (Michaelidou et al., 2011). Capturing new customer insight through social data and analytics facilitates individualized customer experiences (Greenberg, 2010). Therefore, companies should share relevant content

and engage in conversations with customers to create and develop customer relationships (Kaplan & Haenlein, 2010). Furthermore, managers are challenged to invest in the development of new CRM capabilities through the integration of SMT with existing CRM systems (Keinänen & Kuivalainen, 2015; Trainor et al., 2014; Wang & Kim, 2017). The result has been the emergence of the social CRM capability concept defined as the "firm's competency in generating, integrating, and responding to information obtained from customer interactions that are facilitated by social media technologies" (Trainor et al., 2014, p. 271). A social CRM capability enhances interactions between firms and customers as well as interactions among customers (Greenberg, 2010). This new form of capability becomes critical in the process of integrating social media and marketing strategies (Trainor et al., 2014: Wang & Kim, 2017). Furthermore, social CRM capability can lead to higher customer satisfaction, loyalty and retention, and it can improve customer relationship performance (Trainor et al., 2014).

SMT use has been found to be an antecedent of the new social CRM capability (Trainor et al., 2014). However, how SMT use influences the entire CRM process, and related capabilities remain underexplored. Becker, Greve, and Albers (2009) argued that research should be focused on the whole CRM process (initiation, maintenance, and retention) to validate the technological relevance in this context. Using this argument as a starting point in our research and approaching SMT as a resource with potential impact on CRM capabilities, we extend the work of Trainor et al. (2014) by exploring the relationship between SMT use and firm CRM capabilities. The previous research has found evidence regarding the positive effects of CRM technologies on CRM capabilities and performance. For example, Chang, Park, and Chaiy (2010) found that CRM technology enhances a firm's ability to effectively and efficiently implement marketing activities. Moreover, Wang and Feng (2012) validated CRM technology as an antecedent of CRM capabilities. In addition, Becker et al. (2009) provide evidence that investments in CRM technology positively affect CRM process objectives given that CRM technological implementations have constant impact during the initiation and maintenance steps of CRM process and performance. Further, Chen, Li, and Arnold (2013) provide evidence that collaborative communication is positively related to marketlinking capabilities.

To conclude, the prior research has proved that the effective implementation of new CRM technologies positively affects existing CRM capabilities. Consequently, we derive our proposition that SMT use has the potential to increase the effectiveness of creating, developing, and maintaining lasting relationships with valuable customers by enhancing CRM capabilities. Therefore, on the basis of these arguments, we formulate the following hypothesis:

H3. SMT use is positively and significantly related to CRM capabilities.

2.4. Resources, capabilities and firm performance

The effects of adopting and using new technologies in CRM processes on firm performance have gained academic and practitioner interest over time. To understand the strategic importance of the complementarity of technology, business, and human resources in maintaining lasting customer relationships, Rapp, Trainor, and Agnihotri (2010) proposed the concept of CRM technology capability. They defined this concept as "the effective deployment of information technology solutions that are designed to support customer relationships" (p. 1230). Although many organizations have made investments in CRM technologies, the performance results have been under expectations (Reinartz et al., 2004).

In the effort to deepen the knowledge about the contribution of SMT use and CRM capabilities to the firm performance, we draw on RBV and dynamic capabilities theory. RBV postulates that resource heterogeneity is the key-driver of competitive advantage and firm performance (Barney, 1991; Wernerfelt, 1984). In contrast, the dynamic

capabilities theory premise is that resource deployment may be a more effective driver of sustainable competitive advantage (Teece et al., 1997). The effective deployment of firm resources relies on management's ability to develop competencies that enable business units to adapt quickly to environmental dynamics (Prahalad & Hamel, 1990). In other words, the source of competitive advantage has shifted from manufacturing assets, among other assets, to market-based assets and capabilities (Ramaswami, Srivastava, & Bhargava, 2009).

In the marketing literature, Day (1994) introduced the concept of capabilities, which were defined by that study as "complex bundles of skills and collective learning, exercised through organizational processes that ensure superior coordination of functional activities" (p. 38). The early research efforts in this area were focused on the identification of the capabilities of market-driven firms (Day, 1994) and the capabilities around marketing mix pillars (Vorhies, 1998). In an effort to synthetize the previous theoretical developments, Morgan (2012) provides an organizing framework of marketing capabilities that he defined as "the specialized, architectural, cross-functional, and dynamic processes by which marketing resources are acquired, combined, and transformed into value offerings for target market(s)" (p. 106).

The contribution of marketing capabilities to firm performance is widely supported in the literature with empirical evidence. Vorhies and Morgan (2005) found that specialized marketing capabilities (i.e., product development, pricing, channel management, marketing communications, selling and market information management) and architectural marketing capabilities (i.e., marketing planning and marketing implementation) are interdependent and have a positive direct influence on firm performance. In addition, cross-functional marketing capabilities such as CRM and brand management have the same potential to improve firm performance (Morgan et al., 2009; Wang & Feng, 2012). Furthermore, Coltman (2007) suggests that CRM capabilities create a positional advantage that improves business performance

To conclude, through the lens of dynamic capabilities theory, the contribution of marketing capabilities to firm performance has been well documented in the prior strategic marketing literature. Furthermore, the previous research provides empirical evidence that CRM capabilities, as cross-functional marketing capabilities, contribute to the improvement of firm performance. Based on these arguments, we propose the following:

H4. CRM capabilities have a direct, positive and significant influence on firm performance.

The new media channels create opportunities for business growth (Hennig-Thurau et al., 2010). For example, the 2014 annual study of the MIT Sloan Management Review and Deloitte revealed that 63% of respondents (4803 business executives, managers and analysts around the world) reported a positive influence of social business on firm performance. Some authors (e.g., Kim, Han, & Srivastava, 2002) predicted almost two decades ago that the adoption of the new SMT has the potential to improve firm performance by enhancing organizational processes, increasing productivity, and sustaining competitive advantage. To ensure that resources will be effectively allocated the recent priority of the companies that operate both in B2B and B2C consists in isolating the performance outcomes of SMT use (Salo, 2017). For example, social media has the potential to increase brand awareness, which in turn leads to higher sales (Paniagua & Sapena, 2014). It is important to underscore that the positive influence of social media on business performance can be seen after a critical threshold of followers is reached (Paniagua & Sapena, 2014), the added-value of SMT being higher after a certain level of social business maturity (Kane, Palmer, Phillips, & Kiron, 2014). However, the contribution of SMT use (through social capital, customers' revealed preferences, social marketing, and social corporate networking) to business performance is still underexplored (Paniagua & Sapena, 2014).

In other words, SMT use creates new business opportunities by

providing new insights regarding customer needs and demands, new business ideas and models, social capital and networking. Furthermore, SMT use has the potential to improve the effectiveness and efficiency of the marketing processes that contribute to increasing firm performance. In line with this logic, we propose the following:

H5. SMT use is positively associated with increased firm performance.

As a resource, SMT use enhances CRM capabilities, which in turn have a positive influence on customer engagement and performance in the customer relationship process (Trainor et al., 2014) as well as on firm performance (Wang & Kim, 2017). This influence of SMT on business performance is manifested through four channels, i.e., social capital, customers' revealed preferences, social marketing, and social corporate networking (Paniagua & Sapena, 2014). However, Chang et al. (2010) found that the relationship between CRM technology use and firm performance is mediated by marketing capabilities. This mediation effect is supported by RBV and dynamic capabilities theory thesis according to which the use of new technologies enhances existing capabilities that in turn increase firm performance. Following Morgan's (2012) marketing capabilities framework, we have approached SMT as a resource that will be transformed through marketing capabilities into valuable output.

To conclude, the previous empirical research provides evidence that CRM technologies, per se, do not have a direct positive effect on firm performance. Therefore, these technologies enhance marketing capabilities that in turn increase firm performance. With the same logic, we suppose that SMT use has the potential to improve firm performance through enhanced CRM capabilities. Consequently, we expect the following:

H6. The relationship between SMT use and firm performance is mediated by CRM capabilities.

According to the RBV theory of the firm, company resources can generate synergistic effects on business performance (Barney, 1991; Day, 1994). Therefore, aligning firm strategic and technological resources becomes very important for business performance (Rapp et al., 2010). The performance impact of marketing and technological resources' interactivity has been previously investigated in the empirical research. For example, at the corporate level, Song et al. (2005) found that marketing and technological capabilities have a significant interactive effect on firm performance only in environments characterized by high turbulence. Furthermore, Rapp et al. (2010) provide evidence for the positive effect of interactivity between customer orientation and CRM technology as business resources on the customer-linking capability. At the individual level, Agnihotri, Trainor, Itani, and Rodriguez (2017) found that SMT use interacts with sales-based CRM technology in influencing salesperson service behavior in B2B companies. In contrast, Ernst et al. (2011) provide evidence for no significant interactivity effect of CRM technology and the CRM process, concluding that CRM technology does not moderate the relationship between the CRM process and new product performance.

To summarize, aligning marketing and technological resources has become a strategic priority to maintain firm competitiveness. Therefore, leveraging synergies between these resources could generate higher levels of firm performance. In line with these premises, we propose the following:

H7. The interactive effects of SMT use and CRM capabilities have a direct, positive and significant influence on firm performance.

3. Research method

3.1. Data collection procedure and sample

This study used single informant self-reported data collected through an online questionnaire from a random sample of 149

companies with operations in Romania. The respondents were members of the top management team such as general managers, marketing/sales managers or IT managers. As a sampling frame, we used a list of 1000 companies provided by a commercial marketing agency. The companies on the list were extracted through a systematic sampling method from the Kompass business directory. An invitation was sent by email to the top managers with a cover letter that explained the purpose and confidentiality policy of the survey, inviting them to complete an online questionnaire. To improve the response rate, the companies were contacted by phone, and two reminder emails were sent. Of the 162 responses that were received, we retained 149 usable questionnaires, the final response rate being 14.9%.

The respondents had to choose between B2B and B2C depending on the setting that holds the largest share in sales. Approximately half of the firms in the sample are business-to-business (50.34%), while small enterprises with fewer than 50 employees represent 65.8%. The firm experience ranges from 2 years to 45 years of experience in the industry with an average of 18.21 years. Finally, the firms included in the sample operate in the manufacturing (36.2%) and service sectors (63.8%) (see Table 1).

3.2. Measures

The constructs included in the research model were measured using multi-item scales that we have adapted from the previous research Fig. 1. Appendix A provides the individual scale items for each construct and the associated standardized loadings. Furthermore, Table 2 presents the means, standard deviations, correlations and the square root of the average variance extracted (AVE) for the first-order latent constructs.

To assess the customer coercive pressure, we used four adapted items from the scale developed by Wu et al. (2003). The scale items were anchored at 1 (strongly disagree) to 7 (strongly agree). The reliability of the customer coercive pressure construct was found to have a Cronbach's alpha = 0.913. The mimetic competitor pressure construct was measured using the five-item scale of Wu et al. (2003) anchored at 1 (strongly disagree) to 7 (strongly agree). The reliability of the scale was assessed using a Cronbach's alpha, and three items were dropped because of low loadings (< 0.7). When we ran the measurement model for the second time, the results showed an adequate Cronbach's alpha = 0.801, as displayed in Appendix A. The items of the SMT use scale were adapted from the scale developed by Trainor et al. (2014). The four-item scale was anchored at -3 (much lower than competitors) to +3 (much higher than competitors), and the scale was found to be reliable without requiring that any item be dropped (Cronbach's alpha = 0.939). The CRM capabilities construct was captured using Orr, Bush, and Vorhies's (2011) five-item scale anchored at -3 (much worse than competitors) to +3 (much better than competitors). After running the measurement model for the first time, it was necessary to drop one of the items because of low loading (< 0.7). When running the model

Table 1 Sample characteristics.

Firm size	
0–9 employees	38.3%
10–49 employees	27.5%
50–250 employees	18.8%
Over 250 employees	15.4%
Industry	
Manufacturing	36.2%
Services	63.8%
Market	
B2B	50.34%
B2C	49.66%
Firm's mean experience	18.21 years (SD = 7.359)

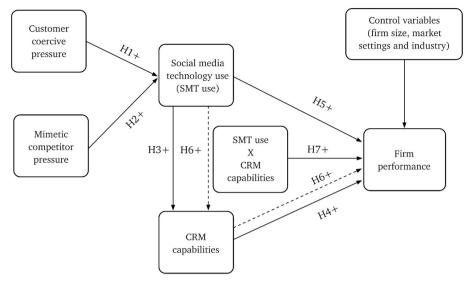


Fig. 1. Research model.

for the second time, the results showed a reliable four-item scale (Cronbach's alpha = 0.861). The dependent variable firm performance was measured using three items anchored at -3 (much worse than competitors) to +3 (much better than competitors) that were adapted from the scale developed by Moorman and Rust (1999). The reliability of the firm performance construct was found to have a Cronbach's alpha = 0.873.

3.3. Assessment for potential common method bias

Taking into consideration that we deployed a single informant self-reported data collected procedure we examined the potential threat of common method bias (Podsakoff & Organ, 1986). As suggested by Podsakoff, MacKenzie, Lee, and Podsakoff (2003), we first ran Harman's single-factor method. The Harman single-factor test requires loading all the measures into an exploratory factor analysis, with the assumption that the presence of common method variance is indicated by the emergence of either a single factor or a general factor accounting for the majority of covariance among measures (Podsakoff et al., 2003, p. 889). In SPSS 23, we performed a factor analysis of all measures included in the model. The results indicate that the total explained variance of a single factor is 29.65%, thereby suggesting that common method bias is not a significant problem in our study. In addition, we conducted a full collinearity test in SmartPLS 3.0 following the procedure indicated by Kock and Lynn (2012). Through this procedure, variance inflation factors (VIFs) are generated for all latent variables included in the model. According to Kock (2015, p. 7), the occurrence of a VIF > 3.3 is considered to be an indication of pathological collinearity, and it is also an indication that a model may be contaminated by common method bias. The VIFs obtained for all latent variables included in our model ranged from 1.051 to 2.348, indicating that our model can be considered free of common method bias.

Table 2 Descriptive statistics and discriminant validity.

3.4. Analytical strategy

To test the hypothesized relationships, we used SmartPLS 3.0. We chose to use the partial least squares (PLS-SEM) method of analysis because it is appropriate for a small sample size and complex models (Hair, Ringle, & Sarstedt, 2011). As recommended by Hair et al. (2011), we used a two-step approach to assess the research model. First, we assessed the measurement models followed by the structural models. When conducting data analysis, we examined the standardized root mean square residual (SRMR), geodesic discrepancy (d_G) and unweighted least squares discrepancy (d_{ULS}) associated with a saturated model, composite reliability (C.R.), Cronbach's alpha, average variance extracted (AVE), t-values of the item loadings, standardized loadings of all the scales used and heterotrait-monotrait ratio (HTMT). The aim of this analysis was to test the reliability as well as the convergent and discriminant validity of all measurement scales. To assess the structural models, first we conducted a structural model evaluation with the aim of testing the fit of each model, and then we examined the linear relationships between the constructs included in each tested model.

Three structural models were tested. The first model (Model 1) examines the direct relationships between customer coercive pressure and SMT use, mimetic competitor pressure and SMT use, CRM capabilities and firm performance, and between SMT use and firm performance. The second one (Model 2) adds the relationships between SMT use and CRM capabilities, and the mediating effect of CRM capabilities on the relationship between SMT use and firm performance. To assess this mediating effect, we deployed the one-step procedure recommended by Zhao, Lynch Jr, and Chen (2010). This procedure implies a bootstrap test of indirect effects. Thus, to establish mediation, all that is required is that the indirect effect is significant. If the indirect effect is significant, the next action implies the classification of the type of

		Mean	SD	CR	AVE	1	2	3	4	5
1.	Customer coercive pressure	3.35	1.59	0.939	0.793	0.892				
2.	Competitive mimetic pressure	4.12	1.61	0.909	0.833	0.736**	0.913			
3.	SMT use	2.86	1.70	0.956	0.845	0.454**	0.430**	0.919		
4.	CRM capabilities	5.64	1.15	0.905	0.705	0.142	0.141	0.232**	0.839	
5.	Firm performance	5.06	1.25	0.922	0.797	0.207*	0.078	0.136	0.416**	0.893

Numbers on the diagonal represent square roots of the AVE; the inter-construct correlations are below the diagonal.

^{*} p < 0.05.

^{**} p < 0.01.

mediation into indirect-only mediation, complementary mediation, or competitive mediation (Zhao et al., 2010).

In addition to the relationships investigated in Model 1, the third model (Model 3) encompasses the moderating effect of SMT use on the relationship between CRM capabilities and firm performance. The moderating effect was assessed using the bootstrap procedures in SmartPLS 3.0. Following Chen et al.'s (2013) procedure, we used the product indicator approach in PLS that allows the creation of interaction terms by multiplying all possible pairs of moderator and predictor constructs.

In all three of the models we tested, we controlled the effect of three variables, specifically, firm size, market setting (B2B versus B2C), and industry (manufacturing versus services).

3.5. Evaluation of measurement model

To evaluate the measurement model, we conducted confirmatory composite analysis as recommend by Henseler, Hubona, and Ray (2016). For the saturated model, we obtained the following results, SRMR = 0.064 (below the 0.08 threshold), $d_{G1} = 0.641$ and $d_{G2} = 0.376$ (below the 0.95 threshold). Furthermore, we followed Hair, Sarstedt, Pieper, and Ringle's (2012) recommendation according to which, when using a PLS procedure, the composite reliability (CR) is a more appropriate criterion for assessing the internal consistency and reliability of the constructs than a Cronbach's alpha. Even if Cronbach's alphas typically underestimate the true reliability and should therefore be regarded as a lower boundary to the reliability (Sijtsma, 2009), our results show that the Cronbach's alphas of all measures used were > 0.70. In addition, as shown in Table 2, the CRs of all constructs were above the 0.7 level, indicating that all scales are reliable (Fornell & Larcker, 1981). We used the AVE values, standardized loadings and tvalues of the item loadings to assess convergent validity. Our analysis revealed that the AVEs for all construct exceed the 0.5 limit, and all items loaded on their respective construct provide convergent validity (Bagozzi, Yi, & Phillips, 1991; Fornell & Larcker, 1981). To calculate the t-values of the item loadings, we used the bootstrap procedure in SmartPLS (Chin, 1998). Our results reveal that all the t-values are significant at p < 0.01 level.

When we assessed the discriminant validity, we followed the suggestions of Fornell and Larcker (1981). As shown in Table 2, the square root of the average variance extracted (AVE) for each construct included in the model exceeded the correlations between the respective construct and any other model's construct. Furthermore, based on Gefen and Straub's (2005) suggestions, when conducting the cross-loading analysis we observed that all item loadings on the construct they formed are higher than the loadings on any other construct included in the model (see Appendix A). Another criterion that we used to assess discriminant validity is the heterotrait-monotrait ratio (HTMT), which must be significantly smaller than 1 (Henseler et al., 2016). Our results reveal values for the HTMT ranging from 0.088 to 0.492. In conclusion, our results provide evidence of reliability, convergent validity and discriminant validity for all the scales we used.

3.6. Structural model evaluation

To assess the approximate model fit and the amount of explained variance of endogenous variables for our three structural models, we used the PLS algorithm technique. According to Henseler et al. (2016) the approximate model fit criteria helps answer the question of how substantial the discrepancy between the model-implied and the empirical correlation matrix is. As suggested by Henseler et al. (2016), to assess model fit, we used as criteria the standardized root mean square residual (SRMR), geodesic discrepancy (d $_{\rm G}$) and unweighted least squares discrepancy (d $_{\rm ULS}$). A model is considered to have a good fit if the value of SRMR is below 0.08 and the values associated with the d $_{\rm G}$ and d $_{\rm ULS}$ criteria are below 0.95 (Henseler et al., 2016). Thus, the

results we obtained after running the three structural models, Model 1 (SRMR = 0.061, $d_{\rm G1}=0.772,\,d_{\rm G2}=0.438$ and $d_{\rm ULS}=0.790$), Model 2 (SRMR = 0.061, $~d_{\rm G1}=0.776,~d_{\rm G2}=0.445~$ and $~d_{\rm ULS}=0.793)~$ and Model 3 (SRMR = 0.061, $d_{\rm G1}=0.772,\,d_{\rm G2}=0.438$ and $d_{\rm ULS}=0.790$), revealed a good model fit for each model that we tested.

We used the determination coefficient to assess the amount of explained variance of endogenous variables. The determination coefficient (R²) reflects the level or share of the latent construct's explained variance and therefore measures the regression function's "goodness of fit" against the empirically obtained manifest items (Backhaus, Erichson, Plinke, & Weiber, 2003, p. 63). First, in case of Model 1, we included two endogenous variables, i.e., SMT use and firm performance, with the following values of R², 25% and 20.7%, Second, Model 2 has three endogenous variables, i.e., SMT use, CRM capabilities and firm performance, with the following values of R², 24.9%, 2.4% and 20.9%. Finally, Model 3 has two endogenous variables, i.e., SMT use and firm performance, with the following values of R², 25% and 21.7%. According to Backhaus et al. (2003), no generalizable statement can be made about the acceptable cut-off values of R². In conclusion, we consider the R2 values of the endogenous variables included in each model to be acceptable.

3.7. Results of hypotheses tests

Structural equation modelling is used to test the structural relationships among the constructs that are included in our research model. In our analysis we followed the bootstrap procedure in SmartPLS 3.0 to examine the hypothetical causality relationships (Chin, 1998). The results of the second step of the PLS-SEM analysis associated with our three structural models are summarized in Table 3.

In the results of the Model 1 analysis, which examined the direct relationships among customer coercive pressure, mimetic competitor pressure, SMT use, CRM capabilities and firm performance, we found support for three of four hypothesized relationships (see Table 3). Thereby, H1 is supported, as customer coercive pressure was found to have a positive effect on SMT use ($\beta=0.320, p=0.002$). Furthermore, a positive relationship was found between mimetic competitor pressure and SMT use ($\beta=0.217, p=0.033$), in support of H2. Additionally, we found that CRM capabilities have a positive influence on firm performance ($\beta=0.391, p=0.000$), providing support for H4. Finally, we rejected H5 because the relationship between SMT use and firm performance is not significant ($\beta=-0.046, p=0.588$).

In the case of Model 2, which examined the mediating effect of CRM capabilities on the relationship between SMT use and firm performance, we found support for five of six hypothesized relationships (see Table 3). Thus, our findings provide support for H1, as customer coercive pressure was found to strengthen SMT use ($\beta = 0.318$, p = 0.001). Additionally, a positive relationship was found between mimetic competitor pressure and SMT use ($\beta = 0.217$, p = 0.034) in support of H2. Moreover, our results revealed that there is a positive relationship between SMT use and CRM capabilities ($\beta = 0.154$, p = 0.021), providing support for H3. The fourth hypothesis was also accepted, CRM capabilities having a positive effect on firm performance $(\beta = 0.395, p = 0.000)$. We did not found support for H5 because the effect of SMT use on firm performance is not significant ($\beta = -0.051$, p = 0.562). Finally, H6 is supported because CRM capabilities indirectonly mediate the relationship between SMT use and firm performance because: (1) a significant indirect effect was found between SMT use and firm performance ($\beta = 0.061 p = 0.027$) and (2) a significant effect of SMT use on firm performance was not found ($\beta = -0.051$,

When testing Model 3, which aimed to examine the interactive effect of SMT use and CRM capabilities on firm performance, we found support for three of the five research hypotheses (see Table 3). Thus, H1 is supported as customer coercive pressure was found to have a positive effect on SMT use ($\beta = 0.320$, p = 0.002). Additionally, H2 was

Table 3
Summary of models testing.

Path	Direct model (Model 1)		Mediating model	(Model 2)	Interaction model (Model 3)		
	Coefficient	t-Value	Coefficient	t-Value	Coefficient	t-Value	
Customer coercive pressure → SMT use	0.320**	3.052	0.318**	3.396	0.320**	3.122	
Competitive mimetic pressure → SMT use	0.217*	2.142	0.217*	2.124	0.217*	2.134	
SMT use → CRM capabilities			0.154*	2.324			
CRM capabilities → firm performance	0.391**	5.346	0.395**	5.229	0.362**	4.533	
SMT use → firm performance	-0.046	0.542	-0.051	0.581	-0.027	0.330	
SMT use → CRM capabilities → Firm performance			0.061*	2.227			
SMT use X CRM capabilities → Firm performance					-0.116	1.228	

^{*} p < 0.05.

supported as a positive relationship was found between mimetic competitor pressure and SMT use ($\beta=0.217, p=0.033$). Furthermore, the relationship between CRM capabilities and firm performance is positive ($\beta=0.362, p=0.000$), thus supporting H4. The fifth hypothesis was rejected as the relationship between SMT use and firm performance is not significant ($\beta=-0.027, p=0.742$). Finally, we did not find support for H7 because the interactive effect of SMT and CRM capabilities on firm performance was not significant ($\beta=-0.116, p=0.220$).

3.8. Post hoc analysis

In addition, we performed four post hoc analyses to verify whether the hypothetical relationships of the three structural models have particularities in the subsamples of firms of different sizes, levels of innovation, industries and markets (see Table 4).

In the first post hoc analysis, we divided the total sample (149 firms) into two subsamples based on the company size criterion. The first subsample includes small firms with fewer than 50 employees (94 firms), while the second subsample (55 firms) is formed of medium and large firms that have > 50 employees. In the case of the small firms, we found that the only driver of SMT use is mimetic competitor pressure ($\beta=0.428,\ p=0.000$), while in the case of the medium and large firms, what drives SMT use is customer coercive pressure ($\beta=0.591,\ p=0.002$). These results indicate that small firms tend to follow competitors' actions when deciding whether to use SMT. In contrast,

medium and large firms take into consideration customer requirements when addressing SMT adoption.

In the second post hoc analysis, we used the market setting criterion to split the total sample into two subsamples. The first includes firms that operate in B2B markets (75 firms), while the second subsample encompasses 74 firms that operate in B2C markets. Our results provide evidence that the positive influence of customer coercive pressure on SMT use is significant ($\beta = 0.290$, p = 0.029) only in the case of B2B firms. This finding confirms the relational nature of B2B relationships and highlights the importance given by these firms to the requirements of their customers. In contrast to B2B firms, in the case of firms that operate in B2C markets, mimetic competitor pressure was found to have a positive influence on SMT use ($\beta = 0.324$, p = 0.041). This result indicates that firms operating in B2C markets tend to focus more on competitors' actions when deciding whether to adopt SMT. Another interesting finding is that in B2C markets, the moderating effect of SMT use on the relationship between CRM capabilities and firm performance is significant but negative ($\beta = -0.300$, p = 0.010). This means that an intense but inappropriate and ineffective use of SMT can negatively affect firm performance.

Taking into consideration the industry criterion, the third post hoc analysis was run on two subsamples. The first subsample includes 54 firms that operate in the manufacturing sector, and the second subsample includes 95 firms that operate in the services sector. In the case of manufacturing firms, we found that only customer coercive pressure

Table 4 Summary of post hoc analyses.

Path	Firm size		Market setting		Industry		Level of innovativeness		
	Small firms	Large firms	B2C market	B2B market	Manufacturing	Services	Low	High	
Model 1									
Customer coercive pressure → SMT use	-0.029	0.591**	0.238	0.290*	0.569**	0.187	0.479**	0.228	
Competitive mimetic pressure → SMT use	0.428**	0.060	0.324*	0.129	0.068	0.315**	0.035	0.307*	
CRM capabilities → firm performance	0.342U**	0.446**	0.645**	0.172	0.481**	0.381**	0.423**	0.406**	
SMT use → firm performance	0.057	-0.171	0.002	0.009	0.051	0.042	0.117	-0.017	
Model 2									
Customer coercive pressure → SMT use	-0.033	0.592**	0.236	0.296*	0.572**	0.187	0.477**	0.226	
Competitive mimetic pressure → SMT use	0.426**	0.060	0.286*	0.127	0.065	0.315**	0.034	0.307*	
SMT use → CRM capabilities	0.137	0.090	0.358**	0.123	0.299*	0.070	0.216*	0.247*	
CRM capabilities → firm performance	0.343**	0.447**	0.652	0.172	0.482**	0.382**	0.429**	0.411**	
SMT use → firm performance	0.052	-0.175	-0.015	0.006	0.045	0.039	0.109	-0.025	
SMT use \rightarrow CRM capabilities \rightarrow firm performance	0.047	0.040	0.234*	0.021	0.144*	0.027	0.093*	0.101	
Model 3									
Customer coercive pressure → SMT use	-0.029	0.591**	0.238	0.296*	0.569**	0.187	0.479**	0.228	
Competitive mimetic pressure → SMT use	0.428**	0.060	0.286	0.129	0.068	0.315**	0.035	0.307*	
CRM capabilities → firm performance	0.327**	0.421**	0.567**	0.150	0.457**	0.340**	0.397**	0.378**	
SMT use → firm performance	0.069	-0.145	0.063	0.023	0.078	0.059	0.135	0.027	
SMT use X CRM capabilities → firm performance	-0.067	-0.245	-0.300*	-0.087	-0.114	-0.139	-0.088	-0.185	

p < 0.05.

^{**} p < 0.01.

^{**} p < 0.01.

drives SMT use ($\beta = 0.569$, p = 0.001), while in the case of service firms, what drive SMT use is mimetic competitor pressure ($\beta = 0.315$, p = 0.005).

In the case of the last post hoc analysis, we split the total sample into two subsamples of firms based on their level of innovativeness. Firm innovativeness was measured using three adapted items from the scale developed by Wang (2008) (see Appendix A). The scale items were anchored at 1 (strongly disagree) to 7 (strongly agree). We used the average of firm innovativeness as the criterion to split the sample. The first subsample includes 67 firms that have a lower level of firm innovativeness (average below 3.5), while the second subsample consists of 82 firms with a higher level of firm innovativeness (average above 3.5). Our results show only one difference between these two subsamples. In the case of firms with lower level of innovativeness, there is a positive relationship only between customer coercive pressure and SMT use ($\beta = 0.479$, p = 0.001). This means that these firms focus their attention on customers' requirements when deciding whether to adopt SMT. However, for firms with a higher level of innovativeness, only mimetic competitor pressure exerts a positive influence on SMT use $(\beta = 0.307, p = 0.023).$

We also analysed whether there are significant differences in firm level of innovativeness between the subsamples used in the first three post hoc analyses. Our analyses revealed that in the case of small firms, the level of innovativeness is slightly higher (mean = 3.879) than in case of medium and large companies (mean = 3.827). Moreover, firms that operate in B2C markets have a higher level of innovativeness (mean = 3.937) than B2B companies (mean = 3.791). Additionally, the level of innovativeness associated with manufacturing firms is below (mean = 3.694) the level of innovativeness of service firms (mean = 3.947). The results associated with Levene's test for equality of variances (F = 0.109, p = 0.742; F = 0.754, p = 0.387; and F = 1.010, p = 0.317) show that equal variances is assumed. Moreover, the results of the *t*-test for equality of means (t = 0.305, p = 0.761; t = 0.887, p = 0.377; and t = -1.467, p = 0.145) show that there is no significant difference between the level of innovativeness associated with small and large firms, B2B and B2C companies, and manufacturing and service firms, respectively.

4. Discussion and conclusions

4.1. Discussion of empirical results

In this study, we empirically investigated the institutional determinants of SMT use and how SMT use and CRM capabilities influence firm performance.

Our findings extend the existing knowledge regarding the adoption of SMT. It highlights the important role of two institutional factors, i.e., customer coercive pressure and mimetic competitor pressure, in firm SMT adoption and use. More specifically, we found evidence that customer coercive pressure and mimetic competitor pressure positively influence SMT use. Our results are consistent with those of the previous e-business research (Wu et al., 2003), which shows that these two institutional determinants of SMT use ensure company legitimacy in the market environment. First, through their access to information and their ability to create and share content regarding products and services sold by various companies, customers can express their requirements and exert pressure on organizations to adopt and use SMT to better fulfill their needs. Second, SMT use is a requirement for organizations that want to survive in the competitive marketplace. To avoid the risk of being left behind by innovative organizations that are adopting SMT, the organizations need to align their action to the practices of other

Another result of this research associated with Model 2 is the positive effect of SMT use on CRM capabilities. This finding is consistent with the existing SMM literature (Trainor, 2012; Trainor et al., 2014) and highlights the important role of SMT in enhancing CRM capabilities. Today, CRM must evolve by creating multiple contact points to engage customers and to

generate benefits both for the company and the customer. Moreover, organizations should store the most valuable information from social media channels and integrate these insights within the organization's current CRM platform.

Furthermore, we found that SMT use does not lead directly to firm performance. CRM capabilities only indirectly mediate the relationship between SMT use and firm performance. This result is in line with the previous findings that SMT use has an indirect effect on performance, this relationship being mediated by firm-level marketing capabilities (Trainor et al., 2014). This finding indicates that the usage of SMT to gather information from customers and foster conversations with them leads to better management of future customer-supplier interactions and enhances CRM capabilities, which in turn improves firm performance.

In line with the existing CRM literature, our findings add evidence from an emergent market that CRM capabilities leads to firm performance (Srinivasan & Moorman, 2005; Wang & Feng, 2012; Wang & Kim, 2017). Thus, to improve firm performance, organizations should adopt new CRM technologies, including SMT, that have the potential to improve CRM capabilities.

Moreover, our results revealed that there is no interactive effect of SMT use and CRM capabilities on firm performance. This result means that CRM capabilities can still generate performance without SMT use. Therefore, we can conclude that SMT use is not a source of competitive advantage for companies and does not lead per se to enhancement of firm performance.

The results of our post hoc analyses revealed that firm size, market settings, industry and firm innovativeness generate differences in the institutional drivers of SMT use. On the one hand, SMT use is driven by competitors' actions in the case of small firms, firms with a high level of innovativeness, firms that provide services and firms that operate in B2C markets. On the other hand, customer needs and requirements lead to the use of SMT for medium and large enterprises, manufacturing companies, those working in the B2B market and those with low levels of innovation.

4.2. Theoretical contributions

This research contributes to the SMM and CRM literature in several ways. This study is the first to draw on the perspective of institutional theory to explain SMT adoption and use by business organizations. Customer coercive pressure and mimetic competitor pressure, as elements of the institutional environment, were empirically revealed to be determinants of SMT use. This finding is consistent with institutional theory, which acknowledges the role of coercive and mimetic pressure as mechanisms of attaining institutional isomorphism. This result is also consistent with the IT technology adoption literature, which claims that institutional factors play an important role in driving new technology adoption by business organizations.

The second contribution of this research resides in its analysis of the relationship between SMT use and CRM capabilities. The positive influence of SMT use that we found provides additional evidence to support the capabilities theory thesis that technology enhances existing firm capabilities. Without using SMT, it is possible that the level of CRM capabilities will be damaged compared to those of competitors and will become a competitive disadvantage.

Third, the identification of the indirect mediator-only role of CRM capabilities in the relationship between SMT use and firm performance is another contribution to the existing literature. Our results emphasize that only using SMT to improve firm performance is not enough, offering support to the thesis that SMT use contributes to firm performance by enhancing CRM capabilities. Furthermore, the intensive but ineffective use of SMT could negatively affect firm performance in a B2C context.

Fourth, we found that the drivers leading to SMT use by organizations are contextual. The focus on customer coercive pressure or mimetic

competitor pressure is dependent on firm size, market setting, industry and firm innovativeness. Small size, higher innovativeness, services sectors and B2C markets tend to focus firm attention on mimetic competitor pressure, while larger size, less innovativeness, manufacturing sectors and B2B markets tend to focus on customer needs and requirements.

4.3. Managerial implications

The empirical results of this research provide evidence that companies are forced by customer coercive pressure and mimetic competitor pressure to adopt and use SMT. The non-adoption of SMT could harm long-term relationships with customers and may negatively affect company image. More, if there is an increasing number of competitors in the industry that adopt SMT, this adoption will become the norm. According to institutional theory, non-conformation to a norm will harm the legitimacy and efficiency of the company. Therefore, managers must align firm strategy and capabilities to the best practices of their competitors to survive in the market. The benchmarking method is advisable to understand best practices in the use of SMT by competitors operating in the same industry and/or other industries. Managers must monitor the new expectations of customers and emerging industry practices to drive investments in new technologies that can enhance firm capabilities. This monitoring should use social media data and analytics tools to identify trends in consumer behaviour and competitors' responses generated by increasing the use of this new technology. These monitoring activities will result in a better strategy-technology alignment and an improved ability to customize the marketing mix to suit customer expectations. In addition, SMT should be integrated with existing CRM platforms, allowing the use of social media data in customer profiling, customizing marketing offers, automating marketing operations, and making informed decisions.

SMT can be used as an instrument to enhance existing CRM capabilities that, in turn, will contribute to increased financial performance. By increasing brand awareness, engaging customers, enhancing CRM capabilities, and reducing transaction costs, SMT use contributes to the growth of market share, sales and profitability.

However, the use of SMT is not a panacea for firm marketing problems. To determine whether to focus primarily on customer requirements or on competitors' actions, it is advisable for managers to consider the size of the firm, its level of innovation, the sector and the market in which it operates.

4.4. Limitations and future research

This study has several limitations that create opportunities for further research. First, the sample size constrains the possibility of deepening the analysis at the industry level. Further research could identify cross-industry similarities and differences regarding the factors that drive SMT use and its effects on CRM capabilities. Second, the fact that we used data from a single source could introduce bias into the results of this study. It is advisable for future research to adopt the multi-

informant approach using respondents from different functional areas and to verify the differences in their perceptions.

Third, another limitation of this study arises from not studying the effects of other factors that could moderate the relationships between institutional variables and SMT use. For example, it could be possible that the effect of customer coercive power will be stronger in the case of lower customer orientation because these firms are less able to identify and anticipate customers' requirements. In the same vein, the effect of mimetic competitor pressure could be more visible in firms that have a lower level of competitor orientation because, without a competitive intelligence system, it is difficult to identify the emerging technologies and business practices that competitors adopted early on. Innovation orientation and entrepreneurial orientation could play active roles in the adoption of this new technology. It is arguable that firms with a high level of these orientations will be more open and proactive in the early adoption of SMT in the CRM process as well as other business processes. Consequently, future research could investigate the direct effects and the moderating role of strategic orientations in SMT adoption and use by business companies.

Fourth, a possible limitation could arise from not considering the possible moderating role of different factors such as social business maturity level in the relationships between SMT use, CRM capabilities and firm performance. It could be expected that these effects will be more evident in the case of companies with a higher level of social business maturity that use SMT in various business processes such as product innovation and supply chain management, not only in CRM. Therefore, future research could investigate the influences of SMT use on CRM capabilities considering the potential moderating role of organizational social business maturity.

Florin Foltean Ph.D. Professor of Marketing in Department of Marketing and International Economic Relations, Faculty of Economics and Business Administration, West University of Timisoara. Currently, his research interests are digital marketing capabilities, digital transformation, and strategic orientations of the firm.

Simona Trif Ph.D. Assistant Professor of Marketing in Department of Marketing and International Economic Relations, Faculty of Economics and Business Administration, West University of Timisoara. Currently, her research interests are social media marketing, customer relationship management, and international marketing.

Daniela Tuleu Ph.D. Teaching Assistant in Department of Marketing and International Economic Relations, Faculty of Economics and Business Administration, West University of Timisoara. Currently, her research interests are social media marketing and customer relationship management.

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Appendix A. Construct measurement scales and item's loadings

Construct	1	2	3	4	5	6
1. Customer coercive pressure (Adapted from Wu et al., 2003) 1 - strongly disagree; 7 - strongly a	gree					
Our customers want that our company use SMT in relationships with them.	0.822	0.582	0.393	0.172	0.031	0.186
The customer relationships of our company would suffer if do not use SMT.	0.914	0.671	0.312	0.117	0.096	0.189
Customers consider our company to be backward if do not use SMT.	0.903	0.679	0.498	0.111	0.102	0.161
Customers demand that our company will establish strong relationships with them using SMT.	0.923	0.682	0.439	0.113	0.049	0.210
2. Mimetic competitor pressure (Adapted from Wu et al., 2003) 1 - strongly disagree; 7 - strongly	agree					
In our industry, many competitors have adopted SMT.	0.634	0.901	0.352	0.113	0.096	0.022
In our industry, companies that do not adopt SMT will be left behind*.	-	-	-	_	-	-
Our company will be perceived as technology-outdated if we do not adopt SMT*.	-	-	-	_	-	-
It is critical that our company be perceived as an innovative business that adopts SMT*.	-	-	-	_	-	-
In our industry, most competitors will adopt SMT.	0.704	0.925	0.438	0.148	0.126	0.111

3. SMT use (Adapted from Trainor et al., 2014) -3 - much lower than competitors; +3 - much high	gher than com	petitors				
Our company uses social media to share content.	0.379	0.355	0.915	0.261	0.110	0.104
Our company uses social media to create conversations with customers.	0.385	0.392	0.911	0.217	0.125	0.099
Our company uses social media to create social relationships with customers.	0.516	0.481	0.932	0.198	0.083	0.165
Our company uses social media to manage communities.	0.408	0.353	0.918	0.173	0.104	0.138
4. CRM capabilities (Adapted from Orr et al., 2011) -3 - much worse than competitors; +3 - much	h better than	competitors				
Routinely establish a "dialogue" with target customers.	0.124	0.121	0.263	0.780	0.032	0.318
Get target customers to try our products/services on a consistent basis*.	-	_	-	_	_	_
Focus on meeting customers' long term needs to ensure repeat business.	0.084	0.085	0.151	0.900	0.166	0.354
Systematically maintain loyalty among attractive customers.	0.067	0.056	0.048	0.839	0.250	0.329
Routinely enhance the quality of relationships with attractive customers	0.178	0.192	0.263	0.835	0.159	0.388
5. Firm innovativeness (Adapted from Wang, 2008) 1 - strongly disagree; 7 - strongly agree						
Our company encourages people to think and behave in original and novel ways.	0.016	0.075	0.051	0.191	0.902	0.093
Our company is willing to try new ways of doing things and seeks unusual, novel solutions.	0.117	0.114	0.111	0.118	0.823	-0.012
Comparative to its main competitors, our company actively adopts "new ways of doing things".	0.093	0.137	0.141	0.160	0.831	0.180
6. Firm performance (last 3 years) (Adapted from Moorman & Rust, 1999) -3 - much worse than	competitors; -	+3 - much be	tter than con	petitors		
Market share growth	0.235	0.068	0.164	0.399	0.013	0.889
Sales growth	0.142	0.047	0.126	0.337	0.127	0.897
Profitability growth	0.174	0.085	0.080	0.376	0.170	0.892

^{*} Note: 1) This item was deleted during the scale purification.

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