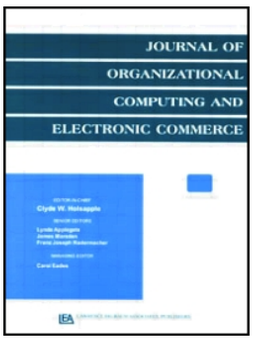

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Social media adoption: A process-based approach

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ABSTRACT

This research conceptualizes and measures social media adoption (SMA) of companies with a process-based approach and explains its antecedents of micro- and macro-environment, size, and ownership, as well as its consequence of intention to increase resources dedicated to social media. Based on data from 310 Turkish small and medium enterprises, the study first develops a conceptual framework on the pillars of internal and external stakeholder focus as well as relationship and information oriented implementation. Based on these two dimensions, it discusses the novel concepts of social customer relations, social stakeholder communication, social intelligence, and social responsiveness related to SMA. The study further indicates that ownership type and micro environment play a role in SMA and that path dependence exists in the interplay of current adoption and future intentions.

KEYWORDS

SMEs; social intelligence; social media adoption; social media communications; technology adoption

1. Introduction

The switch from one-to-many to many-to-many communication models through online platforms (Hoffman and Novak 1996) is probably the most influential development in the commencement of social media (SM). Various SM platforms hosting online interactions have become indispensable as they allow individuals and organizations to interact with each other regarding products, services, and brands without the limitations of time and place. Consumers today have a substantial effect in steering marketing strategies of companies through their feedbacks and involvement in product or service co-creation (Kaplan and Haenlein 2010; Kozinets, Hemetsberger, and Schau 2008). As a response, companies have begun establishing presence in various SM platforms in order to communicate with their consumers and leverage the unprecedented opportunities that SM offers.

While most studies so far have investigated the consumer side of SM adoption (SMA), the company adoption of SM remained largely under-researched (Jussila, Kärkkäinen, and Aramo-Immonen 2014; Michaelidou, Siamagka, and Christodoulides 2011). Our study addresses this gap and contributes to literature mainly in two ways. First, the study develops a framework that aims to capture companies' SMA levels with a process-based perspective across several dimensions. Current literature focuses on the organizational and innovative adoption of SM as an Information Technology (IT) tool (Jussila, Kärkkäinen, and Aramo-Immonen 2014; Jussila, Kärkkäinen, and Lyytikkä 2011; Lehmkuhl, Baumol, and Jung 2013). Our study, on the other hand, specifically investigates SMA and attempts to establish a guideline to demarcate where companies stand in terms of integrating SM in their business strategies. This research further analyzes the presence and effects of path dependence in the interplay of current adoption and future intentions of companies with respect to SM based strategies. We extend the current literature by conceptualizing and measuring SMA together with the antecedents that influence it, and the consequences

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in terms of intentions to increase resources dedicated to SM usage. Second, the proposed framework is tested within the context of Turkish SMEs addressing the lack of studies relating to SMA in emerging economies and SMEs. Our main research questions are the following: How can SMA be conceptualized? Which characteristics of SMEs and their environment lead to a higher levels of SMA? And finally, does the current level of SMA result in future intentions to allocate more resources dedicated to SM?

SM stands out as a marketing and communications tool with its low adoption cost and its capability to diffuse messages between consumers and companies fast, which are critical aspects for SME operations (Stockdale, Ahmed, and Scheepers 2012). SME strategies and operations that are highly influenced by their local context and by the perceptions of their owner/managers, remarkably differ from large enterprises principally following a globally executed marketing communications strategy (Carson et al. 1995). Thus, the SME context provides a better medium for us to delineate adoption differences between companies with respect to using or opting to use SM as a strategic tool.

Turkey is a particularly active country in terms of social media usage. For example, it is the fourth largest country on Facebook in terms of number of profiles created and third country in terms of time spent per visit (Marketing Charts 2013; Social Bakers 2013). Driven by the significant online activity of Turkish consumers, many Turkish companies have started to adopt SM marketing. In addition, SMEs play a vital role in the Turkish economy; they comprise 98%–99% of all firms, represent 81% of all employment, and contribute 36% of the total gross domestic product (Kavcioglu 2009). Consequently, Turkish SMEs constitute a good context for the investigation of SMA in SMEs.

The rest of the article is structured as follows: We first provide a theoretical background focusing on literature related to IT adoption and SMA in SMEs. We then suggest a framework for SMA and present our related hypotheses. Next we discuss our methodology and report the results of our analyses. The article closes with a discussion and a portrayal of business implications together with limitations and directions for future research.

2. Theoretical background and hypotheses development

2.1. *IT adoption and SMEs*

The adoption of IT is critical as it constitutes an important tool for businesses to improve their efficiency, effectiveness, and to achieve competitive advantage (Bharadwaj 2000). IT has the potential to enable or support strategy (Sambamurthy, Bharadwaj, and Grover 2003), tactics, and operations (Krishnan, Rai, and Zmud 2007); and strategic users of IT can expect rise in profitability and market share (Clemons 1986; Weill and Olson 1989) through sustaining their competitive advantages (Barney 1991; Clemons 1991; Clemons and Row 1991; Feeny and Ives 1990). This is especially true for SMEs (Lester and Tran 2008; Shehab et al. 2004). IT can allow SMEs to become global players by enabling e-commerce initiatives (Chaffey, Chadwick, and Mayer 2009). SMEs need to build strategic information systems for proactive strategy implementation (Rouibah and Ould-Ali 2002) and for successful business outcomes. However, compared to big companies, SMEs tend to have constraints regarding financial resources and IT capabilities (Keasey and Watson 1993), and especially custom IT solutions require a good level of financial investment (Thong 2001; Thong and Yap 1996).

Several papers have focused on adoption of technologies or innovations by SMEs. Technology-Organization-Environment (TOE) framework created by Tornatzky and Fleischer (1990) has been used to explore SMEs adoption and implementation of technological innovations such as cloud computing (e.g., Abdollahzadegan et al. 2013), Web service (e.g., Lippert and Govindarajulu 2006), and electronic data interchange (EDI) (e.g., Musawa and Wahab 2012). Researchers who utilize the TOE framework claim that each specific technology or context is related to a unique set of factors (Baker 2012). Most prominently, the Technology Acceptance Model (TAM) has been derived and widely used for explaining adoption of technological innovations (Davis 1989; Davis, Bagozzi, and Warshaw 1989) with many different extensions. Peltier, Zhao, and Schibrowsky (2012) extended the TAM model to SBTAM for the context of small businesses. However, the main problem with TAM is that it is a model

primarily focused on users, not organizations. In organizational contexts, the Information Systems (IS) Success Model (DeLone and McLean 1992, 2003) is often employed as a framework for success and benefits, yet the explanatory power of this model regarding adoption is also limited.

2.2. *Social media adoption and SMEs*

Kaplan and Haenlein (2010) defined SM as "a group of internet-based applications that builds on the ideological and technological foundations of Web 2.0 and that allows the creation and exchange of User Generated Content" (p. 61). As a critical amalgamation of IT and marketing, organizations are recognizing the potential of SM for the development of their brands (Michaelidou, Siamagka, and Christodoulides 2011) and use various SM tools as communication platforms to connect and build strong, long-term relationships with key customers, and to enhance customer experience (Hanna, Rohm, and Crittenden 2011; Kozinets 2002). Yet, there are issues in terms of attitudes toward investments in this area: Barwise and Farley (2005) investigate five countries (United Kingdom, United States, People's Republic of China, France, and Japan) over a five-year period and conclude that, especially within business-to-business and services sectors, expenditure on interactive marketing accounts for only 8% of the total marketing expenditure spent. Similarly, Kietzmann and colleagues (2011) stated that marketers are not willing or are unable to develop relevant strategies and allocate respective resources to engage with SM. The traditional versus contemporary approaches of companies determine the adoption speed and levels of SM technology adoption as well (Mangold and Faulds 2009). A few works attempt to explore the complex nature of SMA at the corporate level. Jussila, Kärkkäinen, and Lyytikkä (2011) discussed the adoption of SM as an IT tool by businesses and develop a model based on maturity levels with respect to its innovation-integration, practice, security, motive, and skill-competence. Jussila, Kärkkäinen, and Aramo-Immonen (2014) revealed that employer branding, collaboration and project related communication, sales support, and customer participation in research and delivery are the main uses of SM in the business context. Similarly, Lehmkuhl, Baumol, and Jung (2013) approached the issue by offering a conceptual discussion of SM maturity and proposing strategy, governance, processes and organization, IT systems, and culture as the adoption dimensions of SM maturity that can be measured with a five-level approach. The authors focused on SM as an external communication means. In our research, we consider SM as an electronic communication channel through which the content is directed to both external and internal stakeholders. The role of SM in electronic communication and commerce has become critical as customers do not rely on advertisement as they did in the past for their purchase decisions and companies need to get accustomed to interacting with consumers on social grounds.

SMEs consider SM as a platform on which they can enhance their customer engagement and create new opportunities, but there is also uncertainty on how to utilize its merits for business performance (Durkin, McGowan, and McKeown 2013; Kietzmann et al. 2011; Michaelidou, Siamagka, and Christodoulides 2011; Ritson 2010). Studies investigating SM usage within the context of SMEs also highlight that interactive nature of SM as a critical factor for business performance (Derham, Cragg, and Morrish 2011; Hoffman and Fodor 2010; Stockdale, Ahmed, and Scheepers 2012). Yet, many organizations cannot easily go beyond a mere presence on common SM platforms such as Facebook and Twitter; and most managers do not fully appreciate the role of SM in companies' promotional efforts.

Most of the limited work analyzing SMA of SMEs is qualitative, relying on case study methodology. For instance, Stockdale, Ahmed, and Scheepers (2012) investigated five SMEs in the United States from different industries that have successfully integrated more than one form of SM into their marketing strategy; resulting in 400% increase in website traffic, increase in revenues, and 70% decrease in marketing expenses. The authors concentrated on the factors that lead to adoption and identified financial constraints to build effective marketing campaigns with high reach and range as one of the major problems that companies faced before adoption. The SMEs use different forms of SM mainly for enhancing marketing and social responsiveness and also see business value in increased customer engagement and traffic flow to the firms' websites. Similar results are reported by Harris, Rae, and

Grewal (2008). The authors survey 400 SME owner/managers in the United Kingdom by phone and case study 30 small firms that they categorize as early adopters using Web 2.0 in the form of blogs, RSS feeds, or online networking tools. However, this research only discusses use of these tools very briefly and does not provide adequate information regarding how the tools are employed as a part of marketing strategy. Similarly, Gligorijevic and Leong (2011) analyzed four small Australian companies using in-depth interviews and study how they utilize online consumer groups to connect to, communicate with, and maintain their customer base. The companies initially used SM for marketing purposes such as finding new customers and communicating with them, however later adopted it as a source of social intelligence gathering information about products, competitors, and customers.

In terms of the ways SM is utilized, previous research further identifies that SM is used by SMEs as part of their online marketing efforts (Harris, Rae, and Grewal 2008); as a knowledge sharing and communication tool (Razmerita and Kirchner 2011), as a means of increasing responsiveness to better manage relations within companies (Zeiller and Schauer 2011); and as a branding tool to enhance communication and build relationships with customers (Michaelidou, Siamagka, and Christodoulides 2011), which ultimately contributes to business value (Lacho and Marinello 2010). Derham, Cragg, and Morrish (2011) and Stockdale, Ahmed, and Scheepers (2012) also highlighted the fact that SMEs are using SM for its interactive nature to facilitate information flow. Not only does it provide companies with knowledge regarding consumer needs and experiences, but it also gives consumers information about the company and its products. As a result, SMEs gain business value through increased customer engagement and effective customer management. By investigating 50 best practices and 50 ordinary SMEs, Kim, Lee, and Lee (2013) identified networking, collaboration, and information sharing as the three main drives why SMEs utilize SM. According to the authors, SM not only serves as a tool to build and maintain relations for users and businesses, it also enhances exchange of information and collaborative work between all parties. The paper further reports that there is a significant difference between best practice companies and ordinary SMEs in utilizing SM for the aforementioned purposes.

There are two specific works that discuss the antecedents of adoption of SM by SMEs so far, both of which approach the subject with qualitative methodologies. Durkin, McGowan, and McKeown (2013) choose an in-depth case analysis method with eight Irish SMEs to investigate the SMA process. The authors discussed company's operating environment, its internal resources and competency levels, and its customer profiles as the main factors in SMA. Based on their grounded theory approach, Geyer and Krumay (2015) defined a Social Media Maturity Model based on demographics, organizational readiness, and maturity, where maturity is constructed upon operational social media management, human resource management, social listening and monitoring, social media integration, social media strategy, and guidelines for responsible behavior.

The study presented here approaches SMA from a perspective of platform utilization and integration into company strategies. Through literature review and know-how from industry projects on digitalization of the Turkish companies, the authors conceptualize SMA along the lines of internal and external focus as well as a relationship and information concentration. Accordingly, SM can be utilized as a networking channel with mainly customers and other stakeholders such as employees, suppliers, and third-party vendors. In addition, SM platforms can be utilized as portals for relationship building and management as well as tunnels of information gathering for analysis and strategic positioning. Further, SM can be used for information and knowledge dissemination both internally and externally. Therefore, a SMA construct needs to incorporate these different facets of SM capabilities.

SMA has so far been mostly measured based on usage of SM platforms like Facebook or Twitter, or based on single-item statements using a Likert-scale (Linke and Zerfass 2013). This is problematic, as adoption, especially for SMEs, is generally acquired through different levels or stages (Daniel, Wilson, and Myers 2002); and also as effective and reliable adoption of SM needs processes and structures, as well as measurement and governance within an adopting organization (Linke and Zerfass 2013; Weinberg et al. 2013). Maturity constructs and levels have been developed for software improvement processes in the form of maturity models like the Capability Maturity Model (Paulk et al. 1993) as well as, more notably, for information technology governance (Becker, Knackstedt, and Pöppelbuß 2009). The

maturity concept in these contexts is based on an assessment on whether a respective process exists, is documented, followed, measured, and continuously improved, and thus also describes an evolutionary improvement path toward improved quality and effectiveness. They are based on the understanding that in order to control and increase the quality of the outcome, the main focus needs to be on the process. Similar models have been proposed for example for web analytics (Hamel 2009). Jussila, Kärkkäinen, and Lyytikkä (2011) and Lehmkuhl, Baumol, and Jung (2013) provided process-based measurements for SMA, yet they use case study interviews and literature review to conceptualize their models. This study is the first quantitative approach to the subject with a significant sample size and is novel in approaching SMA with a process-based perspective.

2.3. *Factors affecting social media adoption*

Several papers have explicitly focused on adoption of technologies or innovations by SMEs and their antecedents, and generally include environment, ownership, industry, company size, or prospective advantage (Baker 2012; Peltier, Schibrowsky, and Zhao 2009; Saldanha and Krishnan 2012; Simmons, Armstrong, and Durkin 2008; Tornatzky and Fleischer 1990). In line with Peltier, Zhao, and Schibrowsky (2012) in their prominent SBTAM, we selected the same dimensions to be included in our study: owner/organizational characteristics, environmental factors, and owner/organization's perceptions of technology as antecedents of adoption.

An organization needs to understand the opportunities and threats from its micro- and macro-environment to build its strategy (Chaffey, Chadwick, and Mayer 2009). In more turbulent environments, information, scanning, and competitive intelligence become crucial aspects (David 2013; Wright, Bisson, and Duffy 2012). Companies face environmental forces that change the "rules of the game" (Tushman and Romanelli 1985; Wright 2011), which oblige them to rearrange their strategies to cope with these changes if they want to stay viable (Fischer, Lee, and Johns 2004). IT adoption becomes critical to facilitate such alignments, and the more intense the competition, the higher will be the need for IT adoption (Benvignati 1982; Levin et al. 1987).

Marino and colleagues (2008, p. 158) emphasized that "SMEs in emerging markets may be especially vulnerable to rapidly changing environments due to the firms' lack of resources and the frequently underdeveloped institutional safety nets." In addition, Analoui and Karami (2002) highlighted that environmental scanning is especially crucial for SMEs to have successful alignment of competitive strategies with environmental requirements. Metts (2007, p. 905) underlined that "managers in SMEs can mitigate some of the negative effects of industry competitive factors through effective managerial action through strategy-making activities." In that sense, SM can become a resource to cope with environmental forces and competitive factors. Thus, we can formulate the hypothesis:

H1. *SMEs that are subject to more intense (a) micro- and (b) macro-forces in their business environments show higher adoption levels in their SM usage.*

The literature is mixed in the results on the influence of SME size on adoption. Some studies investigating the relationship between size and adoption indicate that size is a good predictor to determine the level of the Internet involvement (Dholakia and Kshetri 2002) as well as of e-commerce (Van Beveren and Thomson 2002), enterprise resource planning (ERP) (Buonanno et al. 2005), and SM adoption (Wamba and Carter 2014); whereas others report no significant effect of size on IT adoption (Fink 1998). Jussila, Kärkkäinen, and Aramo-Immonen (2014) determined that impact of size on the use of external SM is similar between small, medium, and large firms. Verheyden and Goeman (2013) reported that large and small companies differ mainly regarding the use of internal SM. However, in cases where they found statistically significant differences, they verified that larger companies are more likely to adopt SM and to use it intensively compared to small and medium enterprises (SMEs). In agreement with the studies of Michaelidou, Siamagka, and Christodoulides (2011) and Simmons,

Armstrong, and Durkin (2008) which underlined the lack of resources as a hindrance toward SM and IT adoption and based on the results of Wamba and Carter (2014), we posit the following hypothesis:

H2. *Companies' size category that is whether they are micro-, small-, or medium-sized, determines the level of their SMA.*

Empirical research has demonstrated that the type of SME ownership impacts business strategy, as family firms are more risk averse compared to corporate ones (Allen and Phillips 2000; Fernandez and Nieto 2006; Thomsen and Pedersen 2000). Indeed, family firms are owned and run by one family or a small number of families (Stern 1986); hence it is the family wealth that is invested in the business. As a consequence, these firms are particularly reluctant to acquire intangible assets such as technologies and qualified employees (Fernandez and Nieto 2006). Also in most SMEs, the chief executive officer is often also the owner of the company (Bisson 2010; Thong and Yap 1996), and "his perception toward IT adoption is of prime importance" (Nguyen, Newby, and Macaulay 2015, p. 164; Thong and Yap 1996). Lybaert (1998, p. 171) posited that "the manager's sensitivity to information, and likewise the firm's sensitivity, is a function of the person-specific characteristics of the SME owner/manager." Yet, in the vein of Fernandez and Nieto's (2006) study, which enhanced the negative correlation between family firm structure and investment in technology (Allen and Phillips 2000; Thomsen and Pedersen 2000), we propose that:

H3. *Family owned SMEs have lower SMA compared to corporate SMEs.*

2.4. *Social media commitment as a consequence of social media adoption*

Prior studies have predominantly neglected the effect of adoption itself on future strategic intentions (Zhu et al. 2006). We draw on a longitudinal perspective and path dependent absorptive capacity, arguing that investments in an innovation will make further investments easier by increasing the absorptive capacity through positive feedback and increasing returns. SMEs higher in SMA are likely going to allocate more resources and implement structural and strategic changes within the organization in order to benefit from SM more effectively and efficiently. Path dependence effects (Cohen and Levinthal 1990) are generally caused by increasing returns, self-reinforcement, positive feedbacks, and lock-in (Liebowitz and Margolis 1995; Page 2006). As Teece, Pisano, and Shuen (1997) also argued, the importance of path dependencies is amplified where conditions of increasing returns to adoption exist. Increasing returns to adoption could stem from the presence of complementary assets, supporting infrastructure, learning by usage, and economies of scale. Increased exposure and experience will also increase the adoptive capacity, and thus increase adoption intentions, which we name as "SM Commitment," reinforcing path dependence effects. SM Commitment not only captures modification intentions regarding the workforce and the budget allocation, but also changes in SM share within overall communication and promotional strategies of SMEs. As stated in Thackeray and colleagues (2008), companies' promotional strategies highly rely on company resources such as budget, expertise, and staff capacity. As a result, SM Commitment is an important indicator for future action plans of SMEs regarding the use of their resources towards better SM strategy. We therefore formulate the following hypothesis:

H4. *Companies that have achieved a higher SMA will exhibit increased SM Commitment.*

3. Methodology

The main focus of this study is to define SMA, discuss its antecedents—namely micro- and macro-environment, ownership structure, and company size, and show how adoption levels affect future commitment. Accordingly, based on the literature review, a survey instrument including basic demographic data, items regarding macro- and micro-environments as well as SMA and SM Commitment was designed.

3.1. *Measures*

As for the environmental factors, Chaffey, Chadwick, and Mayer (2009) posited that an organization faces micro- and macro-environmental forces that can be analyzed respectively with Porter's Five Forces model and PESTEL. Porter's (1991) Five Forces model, which summarizes the competitive environment and structural artifacts of the sector, is often used to understand the micro environment of a business. The PESTEL analysis that covers the political, economic, social, technological, environmental, and legislative frameworks is crucial to understand macro environmental changes (Kotler and Armstrong 2004). We used both of these scales to decipher the environmental factors in Turkish SMEs and measured the factors with items ranging from 1 representing "very low" to 5 for "very high." Survey items regarding SMA were based on our concept of SM usage as current literature does not provide a specific scale to measure SM adoption of companies. We used the two prominent market orientation scales by Narver and Slater (1990) and Kohli and Jaworski (1990) as the starting point and conducted a thorough literature review of marketing communications and relationship marketing literature to generate items. In addition, items corresponding to Porter's value chain (Porter 1991) were also created and/or adopted to be able to capture the company-wide utilization of SM. We define SMA by a process based approach since the adoption of SM technology evolves through various stages of adoption in companies. We use the IT Governance Model (Becker, Knackstedt, and Pöppelbuß 2009), which is based on the Capability Maturity Model (Paulk et al. 1993), to define the stages of SMA. It begins with levels of "non-existent" (lack of any recognizable processes), and continues as "initial/ad-hoc" (no standardized processes, ad-hoc approaches applied on individual or case-by-case basis), "repeatable but intuitive" (similar procedures are followed by different people undertaking the same task, but lack of formal training or communication, and high degree of reliance on the knowledge of individuals), "defined" (procedures standardized, documented, and communicated through training), "managed and measurable" (management monitors and measures compliance with procedures), and finally "optimized" (processes refined to a level of good practice, based on results of continuous improvement). The scale coded from 1 to 6 was provided to the respondents with necessary definitions for each level to measure their stage in terms of SMA. The items for SM Commitment were self-developed specifically for the study to measure SMEs' intentions regarding increasing the workforce and the budget allocation dedicated to SM, as well as SM share within overall communication and promotional strategies and were assessed using a 5-point Likert-scale ranging from 5 for "strongly agree" to 1 for "strongly disagree."

3.2. *Sample characteristics*

In EU, large firms comprise of only 1% of all companies leaving the remainder 99% to SMEs. In addition to being the dominant company size, SMEs employ more than half of all workforce in EU (Verheyden and Goeman 2013). With Turkey reflecting similar firm size characteristics, a stratified sample of 365 SMEs was approached to collect data for the study as a representative sample of Turkish business context. Surveys were administered face-to-face with the appropriate key respondents to increase overall reliability of the answers. After the data was cleaned in regard to inconsistent and incomplete data, 310 cases were left to provide useful data and were selected for further analyses. The sample was stratified based on the geographical distribution of the SMEs in Turkey and was purposely selected from the major cities in Turkey where 42% of all the Turkish SMEs operate according to 2008 ITO (Istanbul Chamber of

Table 1. Profile of Turkish SMEs.

Employee number	Frequency	Percent
1–10 people	37	11.9
11–50 people	73	23.5
51–100 people	78	25.2
101–150 people	21	6.8
151–200 people	52	16.8
201–250 people	49	15.8

Commerce) report. We initially conducted preliminary descriptive analyses to understand the sample. Fifty-five percent of the SMEs are located in Istanbul, followed by Ankara (12.9%), Izmir (11.6%), Bursa (9%), Antalya (6.8%), and finally Adana (3.9%). The sample consists of various industries reflecting a similar distribution of the overall Turkish SMEs (ITO Report 2008), which increases the generalizability of the findings. Top five industries included were service (21%), retail (19.4%), manufacturing (17.7%), construction (10%), and IT (8.4%). A total of 61.6% of the SMEs indicated that they do not export. All respondents were either the only responsible person (28.1%) or one of the responsible persons (71.9%) for the marketing activities of the company. In fact, a high proportion (67.1%) of the respondents indicated that they are either sales/marketing managers or owner/responsible manager of the SME. One-hundred nineteen (38.4%) of the SMEs are family owned, whereas 191 (61.9%) are corporately managed. According to the EU categorization using both employee number and turnover as two main factors, 33 (11%) companies were identified as micro, 74 (24%) as small, and 203 (65%) as medium-sized. Employee numbers for the sample are given in Table 1.

Next, SM usage and familiarity of the SMEs with SM strategies were investigated. Accordingly, SMEs indicated the SM tools or platforms they use. Multiple options including the company web site were available to the respondents. The responses to this question are presented in Table 2. Moreover, 159 SMEs (51.3%) indicated that there is at least one person responsible for SM within their company, and 59 companies (37.3% out of 159) have more than one responsible person. Majority of these SMEs (23.2% out of 159) declared that they spend 1–5 hours/week/person on SM, whereas 29 SMEs (9.4% out of 159) spend more than 28 hours/week/person.

4. Findings

The data from the survey were subjected to Exploratory Factor Analysis to capture the dimensions of SMA. The antecedents were analyzed through ANOVA, t-tests, and regression analysis. Finally, the relationship between SMA and SM Commitment was again tested with regression analysis.

4.1. *Factor analysis and conceptualization of social media adoption*

Items measuring SMA were subjected to *Exploratory Factor Analysis* and six items were eliminated from the analyses due to either vague meaning or low loading (< 0.5). The results yielded a *KMO*

Table 2. Online platforms used by Turkish SMEs.

	Frequency	Percent
Webpage	310	100.0
Blog used for consumers	117	37.7
Official Facebook page	115	37.1
Official Twitter account	134	43.2
Official Linkedin account	76	24.5
Official Youtube account	67	21.6
internal blog or website	48	15.5
Internal Facebook account	29	9.4
Official Pinterest account	27	8.7

value of 0.877, which explained 69.35% of the total variance for SMA (Appendix 1). The dimensions were further analyzed in terms of *Cronbach's Alpha* reliability. Accordingly, SMA is based on four dimensions along the lines of relationship-information concentration as well as internal-external focus as discussed and expected in the conceptual framework. These four dimensions encompass adoption in social customer relations, social stakeholder communication (except for customers), social intelligence, and social responsiveness; and companies may exhibit different levels of adoption as regards to these four pillars.

4.1.1. *Social customer relations*

Social customer relations dimension is based on the development of customer-SME relationships in the context of social media. It is built on online social activities related to customer experience enhancement, customer brand integration, customer relationship management (CRM), as well as new customer acquisition and lead generation. Customer experience is the aggregated thoughts of customers with respect to all aspects of a company and its products (Meyer and Schwager 2007); and it is a critical consequence of CRM. Due to its interactive nature, SM is quite relevant for Social CRM activities (Baird and Parasnis 2011; Hennig-Thurau et al. 2010), and this interactivity of SM also provides a medium for higher levels of engagement for the current and prospect consumers as well as for building brand awareness and social customer-brand relationships (Arnould and Price 1993; Baird and Parasnis 2011; Sashi 2012). Thus, social customer relations dimension is critical for SMA of SMEs in terms of enhancing external relationships with the current and potential customer base. Low levels of social customer relations mean lack of online interactions with customers, while higher levels indicate structured processes around consumer community management, brand awareness, and lead generation.

4.1.2. *Social stakeholder communication*

SM is a critical tool for contemporary communications and, as proposed by Duncan and Moriarty (1998), exchange of information across stakeholders makes communication-based approach to company strategy an essential aspect. Despite their major share in online social communication, customers are not the only stakeholders for companies. All types of social and economic actors act as a critical part of communication and become a relationship partner in networks of exchange expanding the stakeholder domain (Freeman 2010; Vargo and Lusch 2008). Accordingly, stakeholders cover a wide range of network partners such as investors, the financial community, vendors and suppliers, distributors, employees, competitors, the media, local communities, special interest groups, and government agencies (Duncan and Moriarty 1998). This stakeholder dialogue (Unerman and Bennett 2004) is created through stakeholder facing departments, so-called boundary spanners, such as marketing, public relations, safety health and environment, top management, finance, and human resource management. Development of SM has immensely facilitated stakeholders to co-create brand meanings as well as to expedite stakeholder integration (Argyris and Monu 2015; Hollenbeck and Zinkhan 2010; Vallaster and von Wallpach 2013) through various sites regarding video sharing, micro-blogging, and social networking. In this research, social stakeholder communication emerges as an adoption dimension covering all the relational aspects that affect internal business processes of the SMEs complementing the social customer relations aspect. Low adoption levels of stakeholder communication would mean unstructured and spontaneous incidences of communication on SM platforms, while high levels would contain stakeholder specific SM channel management based on stakeholder value approaches delineated by the company.

4.1.3. *Social intelligence*

Social intelligence dimension is basically centered on an extension of the market orientation concept (Kohli and Jaworski 1990; Narver and Slater 1990). It fundamentally refers to organizationwide generation of social information built on SM content and its dissemination processes that are essential in responding to customer needs and preferences. In a sense, social intelligence is the advanced level of SM monitoring and SM analytics and, thus, social intelligence refers to derivation of actionable information from SM to aid decision making and to develop solutions (Moe and Schweidel 2014; Zeng et al. 2010). It

measures whether companies are mature in collecting information through the content and by means of SM regarding their customers, competitors, and the overall environment that can impact their businesses; and it further delineates whether this information is disseminated across the organization both horizontally and vertically for social integration (Dill et al. 2011; Harrysson, Metayer, and Sarrazin 2012; Kietzmann et al. 2011). Therefore, social intelligence is more concerned with internal processes with a rather information based focus. Low levels of social intelligence would indicate that the company does not intentionally follow up on the cloud of competitive, regulatory, or market information present on SM. High adoption levels, on the other hand, denote a structured listening tool for the rich content of SM with respect to economic, competitive, and social trends.

4.1.4. *Social responsiveness*

Customer-to-customer and customer-to-company interactions in this fast, real-time, contagious, and uncontrollable media proved the need for a redefinition of responsiveness for better relationship management (Gupta, Armstrong, and Clayton 2011; Mangold and Faulds 2009). The term responsiveness was mainly introduced by the prominent work of Kohli and Jaworski (1990) in their operationalization of MARKOR concept and includes aspects of how the company responds to customer needs and wants, how it plans for their future expectations, and how the company integrates its units regarding its responses and future strategy. We modified MARKOR items for SM, along with a few items from CRM literature regarding complaint management (Ata and Toker 2012). SM platforms seem to be consumers' favorite complaint channels about various topics such as service failures. However, SM strategies have to go beyond the level of collecting and responding to online complaints. It became an imperative for companies to listen to what their customers are talking about in SM and to change especially the customer-facing processes to incorporate a "social" dimension. Shortly, this dimension is external reactions based on the information focus of SM. Lack of response strategies and processes would be the case in low levels of social responsiveness, and high levels would designate automatic monitoring of social media data combined with process flows structured to resolve issues immediately.

Assessment of adoption levels in Turkish SMEs reveal interesting results. Generally the adoption levels of the four dimensions found are at such levels that the processes are not defined and Turkish SMEs mostly manage their social media activities intuitively. Social customer relations (mean = 3.26) turn out to be slightly more developed than the dimensions of social intelligence (mean = 3.08) and social responsiveness (mean = 3.07). Social stakeholder communications is still at initial stages with mostly ad-hoc approaches (mean = 0.57).

4.2. *Hypotheses testing*

To test the proposed hypotheses, univariate analyses of *ANOVA* and *t-tests* were employed with clusters formed for micro (Porter's Five Forces Model) and macro (PESTEL) environmental forces, as well as with company characteristics such as type of ownership (family-owned versus corporate) and size. Although not stated as formal hypotheses, industry difference was also included into the examination. Results of the micro- and macro-environmental cluster analyses based on the inspection the *proximity matrix, dendogram*, and *icicle* indicated that a three-group structure fits the data best. As a result, high, moderate, and low risk micro- as well as macro-environment clusters were used in further analyses. The results of one-way ANOVA was only significant for the three clusters of micro environmental forces ($F = 6.200$, $df = 4$, $p = 0.000$), confirming only H1a. Post-hoc tests showed that there was a significant difference between the three clusters for SMA. Significant differences were detected between high risk and moderate risk and between high risk and low risk groups. The means for the groups are displayed on Table 3.

Factors such as industry, size, or macro environmental forces were not found to have an influence on SMA. This means that H2 is not supported. The results of the nonsignificant tests are not reported.

Table 3. Means for micro-environment clusters.

	High risk	Moderate risk	Low risk
	N = 215	N = 46	N = 49
SM adoption	μ = 3.1678	μ = 2.6443	μ = 3.0274

* Results are significant at $p = 0.05$.

To understand whether type of ownership (family-owned or corporate) caused any differences, an independent samples t-test was conducted. The results revealed that there were significant differences between the means for family owned and corporate SMEs in terms of SMA, confirming H3. The results of the independent samples t-test are shown in Table 4a.

Additionally, although not stated as a formal hypothesis, we conducted further analyses in order to understand the influence of type of ownership on each dimension of SMA as it may provide useful information regarding SMEs. The results of this analysis are reported in Table 4b.

When analyzing the influence of type of ownership of the SMEs on each sub-dimension of SMA, the results reveal that type of ownership caused differences occur for social stakeholder communication, social intelligence, and social customer relations. As can be seen from the results of the reported univariate tests, only micro-environmental factors and type of owner influence SMA. However, the strength of their influence needs further analyses. Accordingly, a regression model with both factors, along with macro-environmental factors and size, influencing SMA was tested to be able to detect their effect more clearly. Although macro-environmental factors and size have not been found to affect the means, they were still integrated to understand their aggregated influence. With this aim, items measuring micro- and macro-environmental forces were developed by taking the average, and dummy variables were created to measure type of owner and size of the company. In line with previous analyses, size and macro-environmental forces were not significant; however, as ANOVA and t-tests suggested, type of ownership and micro-environmental forces were effective in SMA. The results of the regression analysis between SMA and its antecedents are displayed in Table 5.

Last, items regarding SM Commitment were subjected to exploratory factor analysis (EFA) resulting in a Kaiser-Meyer-Olkin (KMO) value of 0.838 with 68.71% of total variance explained (Appendix 2). The regression analysis to understand the effect of SMA on SM Commitment yielded an R^2 of 0.248 with $p = 0.000$ and standardized ß of 0.5, thus confirming H4. Again, even though it was not stated as a hypothesis we also regressed each subdimension of SMA with SM Commitment, in order to see how each dimension separately affects SM Commitment. The results of the linear regression analysis reveal that social intelligence (ß = 0.305 p = 0.000) displays the highest influence on SM Commitment followed by social stakeholder communication (ß = 0.204 p = 0.000) and social customer relations (ß = 0.149 p = 0.000). On the other hand, social responsiveness was found to be an insignificant contributor (ß = 0.015 p = 0.813).

Table 4a. Independent samples t-test results for type of owner.

	Type of owner	N	Mean	Std. deviation	t	p
SM Adoption	Family-owned	119	2.76	1.25	−3.36	0.001
	Corporate	191	3.19	0.82		

Table 4b. Independent samples t-test results for type of owner for each SMA subdimension.

	Type of owner	N	Mean	Std. Deviation	T	p
Social stakeholder communication	Family-owned	119	2.3929	1.3982		
	Corporate	191	2.8887	1.3918	−3.042	.003
Social intelligence	Family-owned	119	2.7563	1.4604		
	Corporate	191	3.2866	1.2447	−3.287	.001
Social customer relations	Family-owned	119	3.0168	1.4164		
	Corporate	191	3.4162	1.1794	−2.571	0.011
Social responsiveness	Family-owned	119	2.8773	1.4424		
	Corporate	191	3.1822	1.2485	−1.969	0.058

Table 5. Results of regression analysis.

Dependent variable	Independent variable	Standardized β	*p* value
SM adoption	Type of owner	(-) 0.192	0.001
	Micro Environmental Forces	0.176	0.002

* The negative value indicates negative relationship between family run SMEs and SMA.

5. Discussion and conclusion

This study contributes to SMA literature focusing on the context of SM usage. SMA is conceptualized and empirically tested through quantitative methods. The utilized scale refers to the relative adoption levels of SM in a continuum of process maturity from "repeatable but intuitive" to "optimized" processes. The main contribution of this study is that SM needs to be considered as an emerging channel with an internal-external communication focus as well as relationship-information scope. Social customer relations, social stakeholder communication, social intelligence, and social responsiveness emerge as the main strategic areas that companies can utilize SM for (Figure 1). The four dimensions that result from factor analysis tally well with these two dimensions conceptualized in the discussion of SMA.

While social customer relations and social stakeholder communication refer to a relationship focus, social responsiveness and social intelligence are related to the rich, unstructured information focus of SM utilization. Customer relations and responsiveness are mainly related with the external relationships with all stakeholders of SMEs where listening, communicating, and responding become critical for business success. On the other hand, communication with other stakeholders and social intelligence mainly influence internal business processes that are concerned with either internal communication or information flows. Our findings support and extend the conceptual maturity models in current literature. In the maturity model offered by Lehmkuhl, Baumol, and Jung (2013), the authors mentioned that consumer processes, customer relations, and social media crisis management are part of the processes and organization dimension of SM maturity. While their approach covers mostly the external communication perspective of SM, we further demarcate SMA based on dimensions along the lines of relationship and information concentration as well as internal and external focus.

These pillars of SMA closely parallels with what prominent literature depicts as the main factors supporting market orientation: Day (1994) drew attention to market sensing, customer

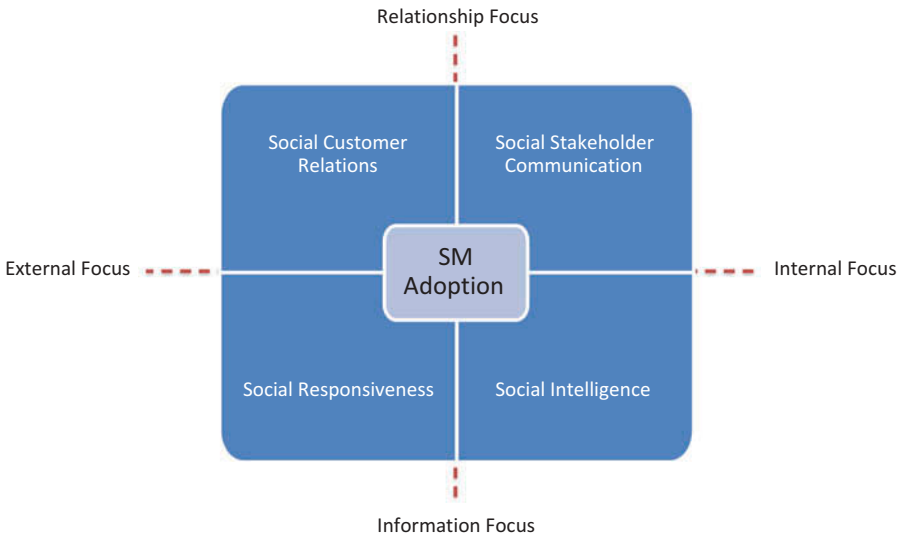

Figure 1. Social media adoption dimensions.

linking, and channel bonding as important factors of awareness in the market orientation (MARKOR) (Kohli, Jaworski, and Kumar 1993) realm. Narver and Slater (1990) also pinpointed customer focus, competitor focus, and interdepartmental coordination in their explanation of MARKOR.

The article also specifically depicts the impact of micro- and macro-environment, ownership structure, and size on this adoption process. The results reveal that type of ownership and micro-environmental forces play a significant and almost equally important role in SMA of SMEs. Our findings are congruent with previous research, which underline that family owned SMEs are reluctant to invest in technology (e.g., Fernandez and Nieto 2006), and that high competition in the micro-environment leads to more technological adoption (e.g., Bisson 2003). This is in line with our reasoning that an organization needs to understand the opportunities and threats from its environment (Chaffey, Chadwick, and Mayer 2009), and that in more turbulent environments, all forms of information, scanning, and competitive intelligence become crucial (David 2013; Wright, Bisson, and Duffy 2012). Therefore, respective tools and strategies are more likely to be adopted. However, contrary to our expectations and previous findings in literature (e.g., Wright 2011), macro-environmental forces are found to have no effect. Also, size of firms does not affect maturity levels, demonstrating that size is not a hindrance toward adoption of SM in Turkish SMEs, which contradicts the findings of Michaelidou, Siamagka, and Christodoulides (2011) and Wamba and Carter (2014).

However, the weak correlation between micro-environmental forces, type of ownership and SMA implies that there should be other factors that need to be taken into consideration. For instance, technology or entrepreneurial orientation of the owners and of the organizations can also easily be regarded as predictors of higher SMA. More technologically oriented managers in SMEs may lead their organization to have higher levels of SM. Similarly, highly entrepreneurial firms and managers may consider SM as an economical and effective resource and engage in higher utilization of SM resulting in higher adoption levels. Further, research regarding IT adoption within SMEs suggests that involvement and contribution of the employees strongly determine successful adoption of IT (Nguyen, Newby, and Macaulay 2015), which may also be identified as another factor affecting SMA.

The results of this study show that the SMA in Turkish SMEs is mostly at the initial stage characterized by "repeatable but intuitive" processes. There is considerable progress needed to achieve higher adoption levels of "defined," "managed and measurable," and finally "optimized." Our study also reveals SMA is lowest in firms that operate in moderate risk environments and the low risk cluster ranks higher in SMA.

From a business perspective, our findings further highlight the importance of path dependence and thus the timing of adoption. As the analyses confirmed that the intentions depend on current maturity, moving along the learning curve seems to provide considerable benefits for organizations through increased absorptive capacity. Exploration and maturity in adoption of new technologies lead to easier and increased further adoption by reducing costs and uncovering new opportunities. It is also important to note that SMA can contribute to the development of competitive intelligence. In this respect, it should not be limited to the collection, analysis, and dissemination of information, but should also comprise new knowledge creation leading to competitive advantage. Strategic early warning systems as a result of SM data need to be construed as advanced social intelligence systems to anticipate and optimize business decisions.

6. Limitations and future research

Issues regarding validity of this study can be discussed in terms of construct, internal, and external validity perspectives. Construct validity means that the independent and dependent variables accurately model the abstract hypotheses, and thus generalization between result and theory is ensured. This was ensured during the design of the study by implementing a thorough review of literature and by applying a pilot survey with the proposed items. Complete anonymity was guaranteed to participants to avoid evaluation apprehension. There is a potential threat of hypothesis guessing, in that participants might try

to guess the hypothesis and support the result dependent on their attitude. Similarly, social acceptability bias might be introduced when participants believe that certain answers are more desirable and accepted, for example related to higher maturity levels in adoption. Additional aspects of adoption might be missing due to using a survey with closed questions, which might also endanger construct validity. In order to maintain external validity, participants were chosen from different geographic locations within Turkey, and the sampling procedure was designed in line with population characteristics to avoid any bias with respect to the generalization of results. Moreover, all instruments were administered in the same way to avoid threats from treatment implementation. Pre-tests were used to achieve reliable measures and questions. Appropriate statistical techniques, including nonparametric approaches where necessary were used to assess effects with stringent limits on significance levels.

These limitations provide areas for future research. Analyses of different countries and cultures with regard to SMA in SMEs would be an interesting new step. This would also provide additional support for the measurement scales and models derived in this article. As stated within the discussion section, different factors discussed within SME literature such as entrepreneurial orientation of the owner/manager and of the SME or company-wide involvement and adoption may have an influence on SMA. Future research incorporating such factors may result in a deeper understanding of SM usage within SMEs. While we did not find strong support for the role of macro environment in this adoption model, a follow-up study might reach different results on this aspect, which could lead to an interesting discussion of macro-environmental factors affecting adoption dynamics.

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Appendix

Appendix 1. Items, loadings, and average variance extracted.

Constructs	Dimensions	Items	Loading	Total variance explained	Cronbach's alpha
SM ADOPTION	Social customer relations	We use SM to enhance customer experience.	0.581	15.65%	0.799
		We use SM to manage the customer community.	0.776		
		We use SM for lead generation.	0.790		
		We use SM for brand building.	0.656		
	Social stakeholder communication	We use SM to manage our relationship with our employees	0.747	16.94%	0.857
		We use SM to manage our relationship with our suppliers	0.847		
		We use SM to manage our relationship with our distributors	0.868		
		We use SM to manage our relationship with government, regulators, interest groups	0.744		
	Social intelligence	Our company periodically circulates SM data (tweets, facebook comments) that provide information on our customers.	0.749	16.83%	0.832
		When something important happens to a major customer of the market, the whole business unit knows about it within a short period thanks to SM.	0.852		
		If a major competitor were to launch an intensive online campaign targeted at our customers, we would implement a response immediately.	0.812		
		We use SM as an early warning system to detect early signs of crisis.	0.690		
	Social responsiveness	We use SM to understand what products or services our customers will and what changes or enhancements are needed for current product / service offerings.	0.578	19.93%	0.895
		We use SM to drive innovation through crowd sourcing.	0.717		
		We use SM to enable our customers to communicate their complaints easily.	0.837		
		We use SM analysis tools to collect customer complaints and respond effectively and quickly.	0.875		
		We use SM to trace whether our customers are satisfied with the quality of our products and services and take corrective action immediately.	0.829		

Appendix 2. Items, loadings, average variance extracted, and Cronbach's alpha reliability.

Construct	Items	Loading	Total variance explained	Cronbach's alpha
SM COMMITMENT	We intend to increase the number of in-house people fully dedicated to SM	0.780	68,41%	0,883
	We intend to increase the capacity of the workforce dedicated to SM efforts	0.809		
	We intend to increase the company's presence in SM platforms	0.840		
	We intend to increase our budget allocation to SM.	0.861		
	We intend to increase share and role of SM in our overall marketing strategy	0.843		