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# Digital channels diminish SME barriers: the case of the UK

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**ABSTRACT**

This article investigates the usage of digital channels by UK small- and medium-sized enterprises (SMEs) and assesses the impact caused on their strategic marketing position. The research is based on statistical analysis of 66 surveyed SMEs in the context of the digital era. Despite indications from the relevant literature about the reluctance of SMEs to adopt advances in technological communication, the research reported indicates a high level of usage of digital channels, especially social media (SM). The web 2.0 technologies that facilitate the new digital channels are standardised, interactive, ubiquitous and cheap. These features change the way how companies communicate and shift fundamental marketing and business concepts. Due to this shift, the SMEs' barriers for technology adoption, including lack of financial resources, knowledge and skills, are diminishing. The latter, supported also by the research findings, increases the impact of SMEs bringing them closer to the large corporations in the global marketplace. The study is significant because it extends previous knowledge on technology adoption, with findings about the adoption of digital channels by SMEs, but more importantly, it opens up a novel insight into strategic literature for SMEs.

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M31; M15; M19

## 1. Introduction

The importance of small and medium-sized enterprises (SMEs) for the economic growth of every country is widely acknowledged. There is no shortage of literature and research studies that observe different aspects of the SMEs. In particular, the adoption of information and communication technology (ICT), or more general, the digital technology, has been explored in detail (Brown & Locket, 2004; Fink, 1998; Mehrtens, Cragg, & Mills, 2001). In essence, the acceptance of the Internet by the SMEs before 2004 is found to be very similar to the adoption of EDI (Mehrtens et al., 2001). Since this literature was published, over the last decade we have witnessed a digital revolution. The web 2.0 technologies, a term which is often synonymous with new digital technologies, have transformed fundamental marketing and business concepts. The new channels of distribution change when, how and by whom

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information is created and how it is consumed, while the new digital tools can only mould its influence. The purpose of the Internet is shifted from a platform for information to a platform for influence (Hanna, Rohm, & Crittenden, 2011). More importantly, the digital channels with their unique feature – interactivity – have shifted the crucial social phenomena, such as human relationships and collaboration. Social networks have been one of the key drivers of this transformation (Greenberg, 2010).

Prior to this transformation, the disadvantages of SMEs, such as their lack of finance, knowledge and skills, brought about resistance to technology adoption, which resulted in inferior perception of their performance compared to the large corporations. With the decreasing cost of the technology, the standardisation of the digital tools and the ubiquity of digital devices on one side, and the transformation of fundamental marketing and business concepts on another, the perceived disadvantages of SMEs have lost their importance.

A growing body of literature researching the online marketing communications, SM and related fields is emerging. The new communication approaches introduced in the web 2.0 era is highly appreciated due to the benefits reflected in different business and marketing needs (Hennig-Thurau, Hofacker, & Bloching, 2013; Peters et al., 2013; Sanders, 2007; Winer, 2009). The research attention in these studies is focused on the specific marketing or business activities regardless of the company size, and the shifted strategic position of the SMEs is not discussed.

The aim of this study is to bring to light the new digital circumstances that transform the SMEs' strategic marketing positions. Therefore, this article discusses the features of the new communication channels facilitated by the web 2.0 technologies, or the Internet in general, and how they change the fundamental marketing and business concepts. The technologies have become user-friendly, cheap, standardised, ubiquitous, interactive and easily accessible, and such features have changed the way of communication, balance of power, interaction with the marketplaces and marketing mix in particular. These changes diminish the SMEs barriers for adopting new technologies, such as lack of financial resources, knowledge and skills, and enhance their strategic position on the global marketplace. The research survey, conducted to explore SMEs' marketing needs and their usage of online channels, demonstrates significant supportive trends for our contention that SMEs are increasingly drawing on benefitting from the new technologies.

Overall, this study makes a significant contribution towards an understanding of the revolutionary change in the strategic context of SMEs caused by the digital era. We therefore believe that this assessment has wider applicability and will offer useful insights for SME researchers and managers who are seeking to develop more effective marketing strategies.

## 2. Literature review

The impact of digital channels facilitated by the web 2.0 on the strategic marketing activities of SMEs, and especially on their strategic positioning, is crucially important for this study. In order to consider the changed SME circumstances, it was inevitable for us to take an interdisciplinary viewpoint. The literature that researches the web 2.0 and its consequent social phenomena provides rich set of novel or changed processes, while the literature on digital marketing addresses these changes with marketing activities and entities. Both parts are mainly generalised for all enterprises, regardless of their size. On another side, the publications for SMEs' marketing strategy and technology adoption build their research

upon foundations established before the digital revolution, no matter of the new technology features. Therefore, this chapter is supported with theoretical synthesis of two components: firstly, a summary of the SME strategic literature and insights on adopting new technology, especially ICT, and secondly, characteristics of digital channels and e-marketing concepts. The first component outlines the most important barriers for the adoption of new technology by SMEs. The second component discusses the features of the web 2.0 technologies aiming to present the new communication landscape that is facilitated and provides an insight how these changes impact the companies.

### *2.1. Summary on SME's technology adoption*

According to many authors researching prior to the web 2.0 era, information technology is considered as a strategic tool for SMEs (Child, 1987; Levy, Powell, & Yetton, 2001; Porter & Millar, 1985). In contrast, in the digital era barring some specific market-oriented technologies that can be a potential for competitive advantage, ICT for the SMEs may act as cost-reducing or efficiency-enhancing tool (Anon Higon, 2012). The ICT adoption by SMEs for fulfilling different business needs is researched by Lee and Grewal (2004) and associated with firm's success.

The lack of resources is one of the most frequently mentioned barriers for SMEs. Blili and Raymond (1993) summarised the specificities of SMEs in relevance to information technology in four points. Firstly, the difference in problems faced by SMEs with those faced by large corporations requires a difference in managerial approaches (Dandridge, 1979). Secondly, SMEs are mainly 'organic' in nature and can be seen as an extension of the entrepreneur's own personality, considered from both the strategic and administrative viewpoint (Kets De Vries, 1977). Thirdly, SMEs operate an informal structure with minimal differentiation among units (Mintzerg, 1979), and finally, SMEs are often weak in terms of financing, planning, control, training and information systems, due to a chronic lack of resources (Welsh & White, 1981).

Another barrier that is significant for SMEs is lack of knowledge and skills. Adopting new technologies and systems is usually related to employees' knowledge, experience and personality. The lack of technical knowledge in small firms is determined as a key factor for inhibiting evolution and sophistication of information systems by Cragg and Zinatelli (1995) in their research conducted prior to the web 2.0 revolution.

In summary, resources, skills and knowledge and limited impact on the marketplace are the crucial weaknesses of SMEs compared to large corporations. These factors have been analysed in the adoption and use of e-business by SMEs in many studies (Lin & Lee, 2005; Mehrtens et al., 2001; Premkumar & Roberts, 1999; Thong, 1999). Levy and Powell (2005) classified the inhibitors for e-business adoption into four groups: financial, managerial, technological, and security. Some of the SMEs' advantages are however: rapid implementation and execution of decisions, market proximity and their capacity for adoption and short term reorientation (Julien & Lafrance, 1977). The listed factors, both positive and negative, are selected in relevance to the ICT prior to the web 2.0 revolution, and they have to be reconsidered with respect to the characteristics of the modern technology, discussed below in this article.

Another study (Raymond & Bergeron, 2008) examined the e-business alignment with the business strategy and identified a relationship between the company's structure and

orientation towards innovation and the alignment process. In the same spirit, Boeck, Bendavid, and Lefebvre (2009) developed an adaptation model of how SMEs adjust their own strategies in the B2B (business-to-business) online environment. The SMEs size is found to be an important factor for wider usage of different communication tools (Gabrielli & Balboni, 2010). On a large scale, the number of employees is positively associated with the level of innovation in the company (Kaufmann, Tsangar, & Vrontis, 2012). The major concern for many B2B firms according to Bao (2009) is that Internet-based technologies are not always readily accepted by target users. Similarly, Windrum and Berranger (2003) concluded that the right timing for ICT investment should be after the adoption of the technology by the existing and potential customers, but not too long afterwards because of the danger of falling far behind competitors. In respect to the latter two conclusions, the acceptance of web 2.0 technologies by potential customers is in rapid expansion, thanks to the standardisation, low prices and ubiquity of the modern technologies. In addition to this literature, some recent publications have researched the adoption of specific online tools and applications by SMEs (Low & Johnston, 2009; Palmer et al., 2012; Van Huy et al., 2012). Generally, the positive consequences of the technological adoption are recognised, but the overall positioning of SMEs is not discussed. Also, several studies consider the features of the web 2.0 and SM and propose recommendations on how to use them effectively (Huy & Shipilov, 2012; Saravanakumar & SuganthaLakshmi, 2012). Although these studies have considered some features of digital communications, they do not discuss the strategic context of SMEs. The theoretical contribution of this study is to fill this gap.

### 2.2. Summary of digital features and shifted marketing concepts

The term web 2.0 was coined by DiNucci (1999), but it was defined several years later as business revolution caused by the move to the Internet as a platform (O'Reilly, 2006). Due to the network effects from user contributions, 2.0 applications get better the more people use them.

Web 2.0 is characterised by technologies, for example: Really Simple Syndication (RSS), atom and microformats; applications such as: blogs and wikis; programming languages and techniques such as: ajax, open source software, open application programming interfaces (API), web services and service oriented architecture (Musser, O'Reilly & O'Reilly Radar Team, 2007). Although O'Reilly defines this shift as revolution, many authors speak about an evolution of ideas rose in the past (Levy, 2009). Indeed, some of the web 2.0 technologies emerged before the web 2.0 era and have been constantly upgraded with incremental improvements. More recent literature defines it as an umbrella term explaining the significant changes in the ways Internet users and companies utilise the World Wide Web (Wirtz, Schilke, & Ullrich, 2010). The latter demonstrates that the attention is moved from technologies and techniques to principles and trends that collectively form the basis of the next generation of the Internet as mature and distinctive medium characterised by user participation, openness and network effects (Musser et al., 2007). With these new characteristics, the Internet forms a communication landscape that facilitates open and interactive digital channels, such as interactive web pages optimised for the search engines, social media (SM) applications, blogs and wikis. All of them are also channels for fulfilling marketing and business needs of businesses. The companies should try to identify ways in which they can make profitable use of the new communication landscape (Kaplan & Haenlein, 2010).

The new technologies facilitate SM phenomenon, which significantly impacts all aspects of a firm: its reputation, sales and survival. The challenge that is posed for the firms is huge because the established managerial practices are not able to engage and appropriately respond to the customers (Kietzmann et al., 2011). This change is not the result of the technology per se, but of the combination of the digital features with organisational features and practices that support their use (Zammuto et al., 2007). Wirtz et al. (2010) discusses the effect of web 2.0 technologies on different business model types and propose managerial guidance on how to adapt them in response to the changes in the technology and user behaviour.

The influence of digital channels on marketing has caused a paradigm shift which can be illustrated by observing the changes in marketing concepts: communication, balance of power, interaction with the marketplaces and marketing mix. In traditional communications the flow of information between customers (face-to-face, word of mouth) had minimal impact on the marketplace because of its limited dissemination, which resulted in a high degree of control over the communication process. By contrast, with digital communications, the information about products and services originates from the marketplaces, based on the experiences of the individual customers (Yang et al., 2012). This new social trend in which people use technologies to get the things they need from each other, rather than from the traditional institutions like corporations, is named groundswell and defined by Li and Bernoff (2008). They explain its emergence as a result of the collision of three forces: people, technology and economics. It is human nature that people with similar interests group themselves, most often in opposition to an institutional power; the same behaviour is facilitated in the online world by the digital channels. The technology is thus only the enabler for building relationships between people. And finally, the last driving force for the social trend is economics, simply because in the virtual world traffic equals money.

The web 2.0 technologies are user-friendly and gravitate toward standardisation, simplifying the underlying technical know-how for creating overall online presence. Therefore, the distinctiveness in usage of the web 2.0 tools is more in the combination of the content, rather than technical excellence of its users. The ubiquitous connections convert the traditional media into interactive media where people can communicate almost all the time. As a result, consumers' power is magnified and customers influence other customers at every stage of purchasing lifecycle – from visitors to post-purchase behaviour (Mangold & Faulds, 2009). While the traditional channels facilitate only the one-to-many communication model, electronic channels bring to life both one-to-one and many-to-many models. By analogy, target marketing and one-to-one marketing, as two new types of marketing, emerged in consequence (Allen, Kania, & Yaeckel, 2001). Peppers and Rogers (1997) explained customer-driven competition as synonymous to one-to-one marketing. Chaffey et al. (2009) summarised the changes in the interaction with the marketplaces: replacement of the mass-marketing push model with individualised marketing (mass customisation) pull model; replacement of supply-side thinking with demand-side thinking, where the customer is perceived as a partner rather than as a target; the market segmentation, or arbitrary defined target segments are transformed into communities of like-minded customers; and finally, the old-media monologue is replaced by interactive dialogue where customer feedback and participation offers responses to company marketing activities. The two-way communication capability cements the customer–firm

relationships (Lancioni, Smith, & Oliva, 2000). With these characteristics, the Internet and the digital channels provide many new opportunities for the marketer to vary each of the four strategic elements of the marketing mix: Product, Promotion, Price and Place (Chaffey et al., 2009; Rajh & Dosen, 2010). This influence is especially recognised by many researchers in marketing communications as a topical variation of Promotion (Andersen, 2001; Chaffey et al., 2009).

Another social paradigm that emerges from the digital communications is collaboration, whose driving activities are crowdsourcing and ideation (Evans & McKee, 2010). Otte and Rousseau (2002) went so far as to generalise all collaborative structures and even the Internet as social interaction networks. Collaborative networks are crucial for innovative activity along the value chain, especially for SMEs (Tomlinson & Fai, 2013).

Lastly, SM is recognised as a 'hybrid component of the promotion mix' (Mangold & Faulds, 2009). Kaplan and Haenlein (2010) assessed self-presentation and self-disclosure as being the two key elements of SM. The benefits that could be unlocked by SM usage can be consumed not only for marketing purposes, but also for all business activities. Bernoff and Li (2008) addressed the needs of company, including: research and development, marketing, sales, customer support and operations, with SM tools, and provided appropriate success metrics for each of them. The existence of multiple elements, that are basic and overlapping in the e-marketing mix, indicates that integration across elements should be more commonplace compared to the traditional marketing mix (Kalyanam & McIntyre, 2002), which goes in favour of SMEs because of the integrated corporate structure of their business units.

## 3. Methodology

For the purposes of the study, a survey of SMEs' digital strategies and receptivity was conducted. Pilot studies that were implemented resulted in minor adjustments, which were incorporated in the final version of the questionnaire. The survey was carried out in 2011 in the UK, and was administered to SMEs within diverse industry sectors with fewer than 500 employees. An invitation to join in the survey was sent via email to the directors or marketing representatives of around 1000 UK SMEs, and 15 printed copies were handed out. Overall, it yielded 67 responses, of which 66 were usable for the analysis representing a response rate of 6.5%. The survey contained questions that addressed the usage of digital channels by the SMEs to fulfil marketing or other business purposes. The questions that served to determine the influence of different factors in buying decision, were measured on a discrete Likert-type scale (1–8 with 1 = 'the least important factor' and 8 = 'the most important factor'). Respondents were asked to indicate how important each of the given factors is for purchasing marketing services and products or choosing a marketing agency. The intensity of the factors is determined by the respondents, relative to their knowledge, experience and perception.

A profile of informants' firms is presented in Table 1. As shown, 42.43% of the companies operate mainly online (the first two categories: Marketing agencies and ICT/Online services/Consulting), 7.58% operate only offline (those without registered domain name or website), while the rest operate both online and offline. To ensure that the companies without online presence will be included in the sample, both online and offline methods for conducting the survey were used.

**Table 1.** Characteristics of informants' firms.

| Characteristics | Number in sample | Percentage |
|---|---|---|
| *Industry* | | |
| Marketing agencies | 19 | 28.79 |
| ICT/Online services/Consulting | 9 | 13.64 |
| Construction | 5 | 7.58 |
| Restaurants/Catering | 8 | 12.12 |
| Retail | 4 | 6.06 |
| Other industries | 21 | 31.82 |
| *Years of trading* | | |
| <1 | 9 | 13.64 |
| 1–5 | 15 | 22.73 |
| 6–10 | 16 | 24.24 |
| >10 | 26 | 39.39 |
| *Online presence* | | |
| No domain name or website | 5 | 7.58 |
| Registered business domain name | 7 | 10.61 |
| Website built and maintained in house | 25 | 37.88 |
| Website built by third party, but maintained in house | 17 | 25.76 |
| Website built and maintained by third party | 12 | 18.18 |
| *Annual marketing budget* | | |
| No budget | 16 | 24.24 |
| <1 K | 18 | 27.27 |
| 1 K-2 K | 8 | 12.12 |
| 2 K-5 K | 9 | 13.64 |
| >5 K | 15 | 22.73 |

Source: Authors.

The application of the Kolmogorov-Smirnov test determined that many data sets were not distributed normally. Therefore, we used non-parametric statistical tests (Statistic Toolbox, MatLab), and reported individual values, ranges, and medians to identify influence of different factors, usage of different tools, or relationships between variables. Due to the asymmetry in the value distribution, Wilcoxon rank sum test for calculating the p-values is used (Gibbons, 1985; Hollander & Wolfe, 1999). If the p-value is lower than 0.05, then the variables under investigation are significantly different.

The results are depicted by notched box plots (Figures 1 and 2), as an advanced alternative method for statistical analysis. The advantage of the notched boxes that are used in this study is the opportunity visually to be determined whether two distributions are similar. Further details about this statistical instrument can be found in the appendix to this article. To verify and quantify these relationships, additionally we calculated the correlation with Spearman's rank correlation function (Maritz, 1981; Myers & Well, 2003). The full correlation matrix was calculated, but only the correlations that are of interest are presented here.

## 4. Results

The main research goal was to discover new insights for SMEs in the light of the rapid expansion of digital channels and their features. Common patterns and trends among the firms involved in this study appeared by themselves through the data collection and were also highly consistent with the indications of the literature review.

To check the power of influence that different factors have on buying decision in the era of digital communications, we assessed the importance of good reputation, payment advantages and incentives. The group of the reputation factors have the highest median

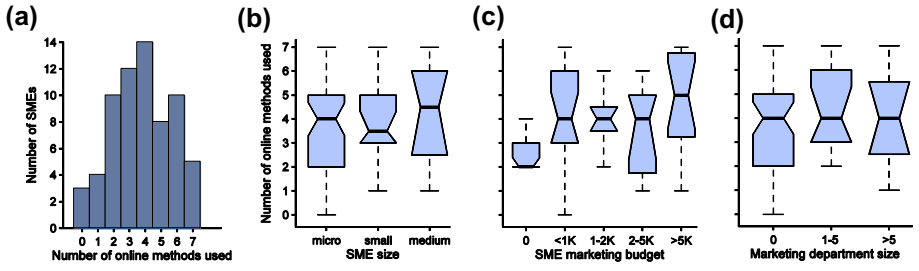


**Figure 1.** Online methods usage. Source: Authors.

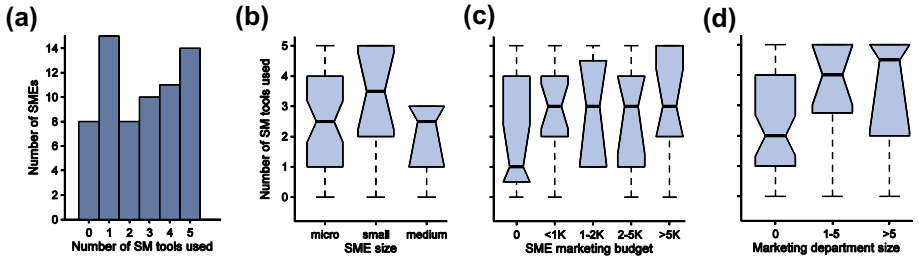


**Figure 2.** Social media usage. Source: Authors.

at 6 compared to the rest of the factors, as presented in Table 2. Moreover, two factors of this group ('strong brand' and 'client reviews') are correlated significantly with a company's marketing budget ($p = 0.0143$ and $p = 0.0256$ respectively). The size of the marketing department or the size of the company does not influence the importance of any of these factors, which is indicated in the fourth and sixth column of the Table 2.

To investigate the receptivity of online channels and SM channels by SMEs, the usage of different tools for online advertising and SM applications is surveyed. Figure 1 illustrates the results of online channel usage: (1) online usage histogram (Figure 1[a]); (2) box plots of online usage vs SME size (Figure 1[b]); (3) box plots of online usage vs SME marketing budget (Figure 1[c]); and (4) box plots of online usage vs marketing department size (Figure 1[d]). As presented in Figure 1(b), the box plots overlap between each other, which indicate that the usage of online tools is not related to company's size. By contrast, the use of online tools in relation to the annual marketing budget shows a rising trend (Figure 1[c]), which is not the case when the usage is compared to the size of marketing department (Figure 1[d]). In the latter, the same median of 4 can be noticed for all three box plots.

In a similar manner, Figure 2 illustrates the results of SM usage: (1) SM usage histogram (Figure 2[a]); (2) box plots of SM usage vs SME size (Figure 2[b]); (3) box plots of SM usage vs SME marketing budget (Figure 2[c]); and (4) box plots of SM usage vs marketing department size (Figure 2[d]). Figure 2 shows that SM usage and its distribution is slightly different than the usage of online methods. Overlapping of the notched parts on Figure 2(b) gives qualitative evidences that the acceptance of SM applications does not depend on the company's size. In relation to the company's marketing budget, the result is even more interesting (Figure 2[c]). Apart from SMEs without explicit annual marketing budget, the distributions of all other answers are with same median at 3. But in relation to the size of marketing department, a rising trend of the SM usage is determined (Figure 2[d]).

**Table 2.** Descriptive statistics and correlations of influential factors for buying decisions ($n = 66$).

| Variables | Median | SD | SME size | Marketing budget | Marketing department |
|---|---|---|---|---|---|
| 1. Strong brand | 6 | 1.992 | 0.109 | 0.300* | 0.133 |
| 2. Cheapest product | 4 | 2.052 | 0.201 | -0.003 | 0.075 |
| 3. F2F interaction | 5 | 1.817 | 0.058 | 0.070 | -0.061 |
| 4. WOM | 6 | 1.797 | -0.241 | 0.122 | -0.209 |
| 5. No long-term contract | 6 | 2.271 | 0.063 | 0.233 | -0.174 |
| 6. Monthly payment | 5 | 2.176 | -0.059 | 0.172 | -0.188 |
| 7. Payment per result/click | 5 | 2.157 | -0.043 | 0.169 | -0.018 |
| 8. Free web profile | 5 | 2.581 | -0.018 | 0.115 | -0.169 |
| 9. Free support and advices | 5.5 | 2.408 | 0.009 | -0.046 | -0.164 |
| 10. Good client reviews | 6 | 2.013 | 0.099 | 0.275* | -0.032 |

*Correlation is significant at the 0.05 level.
Source: Authors.

**Table 3.** Descriptive statistics and correlation matrix ($n = 66$).

| | Median | SD | SME Size | Marketing budget | Marketing department |
|---|---|---|---|---|---|
| Number of online channels | 4 | 1.867 | -0.030 | 0.366** | 0.124 |
| Number of SM channels | 3 | 1.750 | 0.125 | 0.203 | 0.272* |

Correlation is significant at:
*0.05 level,
**0.01 level.
Source: Authors.

Quantitatively, Table 3 illustrates the significance of the correlations between the two variables and a company's characteristics. The number of online channels used by the SME is positively correlated with the annual marketing budget, with significance at the $p < 0.01$ level, while the number of SM channels is positively correlated with the size of the marketing department, with significance at the $p < 0.05$ level.

## 5. Discussion

The study focuses on the impact of digital communications on SMEs' strategic position. Despite the assumed facts about the technology adoption by the SMEs, this study investigates the technology adoption by the SMEs in the digital era and brings into light some interesting conclusions. The research compares the answers from the survey for micro, small and medium enterprises in order to determine significant patterns in SMEs' behaviour. First, the outcome of the results in Table 2 shows that, when SMEs decide to invest in technology, the only significant trend is that an SME with a greater marketing budget pays more attention the supplier to be with a strong brand image and for the products to be positively reviewed by other users. Both variables are indicators for the good reputation of the supplier, while there is no relation between the SMEs' characteristics and the payment advantages. Second, the online channels, especially SM tools, are widely accepted by the SMEs in general. The correlation between companies' marketing budgets and the number of different online tools used show a significant trend, which is not the case for SM channels only. More importantly, the number of SM channels used is associated significantly with the number of staff employed in marketing departments.

We can now look into the emerging outcomes from this research in light of the conclusions brought from the literature review (see above). First, the SMEs' lack of resources is listed as the most important barrier in technology adoption. Since this literature was published, however the technology has evolved greatly and its price has dropped. Nowadays, being present in the digital world is a crucial part of life, not only for businesses, but also for individual users. In addition to this, the paradigm of selling the software is shifting from buying and implementing in-house to renting software that is hosted by the vendor (Bayrak, 2013), usually on the cloud (Sultan, 2011, 2013). With this shift, instead of bulky and complicated software packages, SMEs can consume the software as a service (Mietzner, Leymann, & Unger, 2011; Wei-Wen, 2011). Secondly, an inability for immediate return on investment (ROI) has been considered as a reason SME owners/managers decide not to adopt new technology. The interactivity of the digital channels has caused a paradigm shift in this area. Hence, instead of direct measure for ROI (Misra & Mondal, 2011), the online traffic as a digital counterpart for money (Evans, 2010), can be measured and evaluated immediately. Thirdly, the literature on technology adoption claims that existing IT systems in companies are limiting future development and adoption of additional software because of compatibility issues. By contrast, the novel software packages tend toward standardisation, which in fact diminishes the compatibility issues. And fourthly, the problem of complexity and need for new skills and expertise that were formerly associated with SMEs, also fade away thanks to the standardisation, user-friendly tools and well-documented APIs. According to Greenberg (2010), the needs of social customer are: corporate transparency, authenticity and interaction. In this context, the technology with its standardised digital channels is only a facilitator for creating a brand image.

Therefore, it is understandable why the SMEs are not driven by the price or payment advantages while making their choice of technology vendor, but by the good reputation of the vendor (the first outcome presented). Client reviews' growing influence in decision-making process is acknowledged as 'disproportionally beneficial' for small businesses because of the low cost of this method (Mangold & Smith, 2012). The digital channels are highly accepted and in use by the SMEs (on average, firms use four out of seven offered choices of online methods, and three out of five offered SM tools), and this trend is not associated with the company's size. In relation to company's annual budget a significant upwards trend for online tools can be detected, which aligns with the fact that some of the tools offered are not free of charge (online ads/banners, pay-per-click (PPC), etc.). Examining the usage of different communication tools, Gabrielli and Balboni (2010) concluded that determining the communication budget is actually the main weakness for the SMEs, because the budget is often nailed down *ex post*, after having fixed which kind of activities the firm intends to implement. Also, the SM usage is significantly associated to the size of marketing department, and the rationale behind this result is: more marketing personnel could potentially maintain the company's presence on more applications/platforms, build the image of corporate transparency, interact with customers, and create an authentic online brand.

## 6. Conclusions, implications and further directions

The main contribution of this work is to introduce a novel insight to the strategic marketing literature for SMEs. The SMEs and their adoption of technology are researched in numerous publications, but the technology discussed there has in fact evolved in line with the most

recent digital evolution. In essence, the changes brought by the digitalised communication landscape have made a considerable impact on the SMEs barriers or inhibitors for technology adoption, such as economic, managerial and technological issues.

The objective of the conducted research was to explore the digital channel's usage by the SMEs. The findings show that there is no linkage between the company's size and the digital channels usage. The significant correlation between online methods and company's marketing budget that was demonstrated can be justified with the fact that some of the offered online methods, such as PPC and online ads, are not free of charge. This conclusion is also supported by the lack of dependence between SM tools usage and the marketing budget. Instead, significant correlation between SM tools and the size of marketing department is shown, which indicates that for the free of charge online tools, such as SM applications, the usage of different tools is associated to the number of people involved in creating and maintaining the online presence. Additionally, another conclusion emerging from this research is that the good reputation of the technology vendor is a more influential criterion for the SMEs than the cost and payment advantages for making that choice.

Overall, the study contributes to the SME literature by showing that the established frame for the SMEs' strategic position by comparison with large corporations should be reconsidered. The findings are congruent with the innovation literature and some further studies that are still in their infancy and not focused on the SME's context.

Thus, the evolved technology is getting closer to the reach of SMEs; its acceptance is not unaffordable and no longer requires complex or specific skills. SME owners/managers should become increasingly aware of stepping stone that brings their business to the same level as large corporations on the global marketplace. The digital channels, especially the SM tools, can support more than one business function at the same time (Bernoff & Li, 2008; Kalyanam & McIntyre, 2002), which is very appropriate for the SMEs because of the integrated corporate structure for different business functions within a single department. As technology is becoming cheaper and more user-friendly, managers should focus not so much on investing in their marketing activities, as in allocating more personnel to build and maintain company's online presence and brand image.

The study described here is limited by the relatively small sample size and the variety of industries investigated, where the whole distribution as a conventional sample might have had effects on the statistical results. Further research about whether the results hold in other contexts and with firms of other sizes, or in certain other industries, might be beneficial. For example, the software industry is a specific type of industry where the supply chain itself is closely related to the digital channels and should be treated with special attention. Also, this study acknowledges that adopting the technology, the digital channels in particular, is not a source for competitive advantage by itself. Rather, it is more important how the company presents its brand in the virtual environment. Certain measures for the quality of the digital image and SM usage are defined (Dwyer, 2007; Evans, 2010; Hanna et al., 2011; Laroche, Habibi, & Richard, 2013; Laroche et al., 2012; Peters et al., 2013) and the next step will be to adjust them to the context of SMEs.

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## Appendix 1.

Figure 1A annotates the main characteristics of the notched box plot. Box plot is defined as a diagram that provides a pictorial representation of the distribution of the data for a variable and statistics such as median, inter-quartile range, and the highest and lowest values (Saunders, Lewis, & Thornhill, 2009). The middle or median value can be calculated by ranking all the values in ascending order and finding the mid-point (or 50th percentile) in the distribution. For variables that have an even number of data values the median will occur halfway between the two middle data values. The median has the advantage that it is not affected by extreme values in the distribution. The maximum and minimum observation represents the highest and lowest value or extreme. The edges of the box represent the upper value of the inter-quartile range (the high edge) and the lower value of the inter-quartile edge (the low edge). IQR is the interquartile range and n is the sample size. The height of the notched or narrowed part of the box around the median can be calculated as 3.14 times the height of the central box, divided by the square root of the number of the data elements in the corresponding data sample. The edges of the central box are 25th and 75th percentile in the distribution (Frigge, Hoaglin, & Iglewicz, 1989). The medians (central lines) of the two boxes are significantly different at approximately $p<0.05$ level if the corresponding notches do not overlap (McGill, Tukey, & Larsen, 1978). The latter is an advantage of the notched box plot which provides a way to quickly and visually determine whether two variables are statistically different or similar.

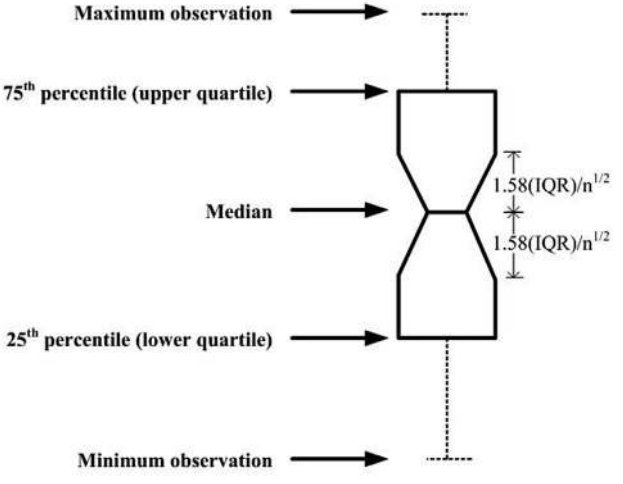


**Figure 1A.** Annotated notched box plot. Source: SAS Institute Inc, 1999, p. 1766.