What drives B-to-B marketers in emerging countries to use social media sites?

Dr Kaouther Kooli, Senior Lecturer, Bournemouth University, UK

Dr Nektarios Tzempelikos, Senior Lecturer Anglia Ruskin University, UK

Dr Pantea Foroudi, Senior Lecturer, University of Middlesex, UK

Seif Mazahreh, MSc, Digital Marketing Officer, Specialised Technical Sservices, Jordan

## Abstract

#### Purpose

B-to-B marketers in emerging countries still lag behind compared to peers in developed countries in terms of the use of social media sites. Recent literature calls for a further understand the factors influencing social media sites' use by B-to-B firms in emerging countries. This paper builds on this literature to map and investigate the factors influencing B-to-B marketers' intention to use social media sites in an emerging country

## Methodology/Approach

The designed model was tested by implementing a survey. Snow ball sampling method was used to select B-to-B marketers from 158 firms in Jordan. Structural equation modelling (SEM) using PLS was implemented to investiagte the various influences and relationships. A discussion of the results compared with those of existing research conducted mainly in Western countries, with very few conducted in emerging countries, is provided.

## Findings

The results highlight similarities in the factors affecting the intention to use social media sites in emerging countries: perceived usefulness and perceived utility were found to significantly influence the intention to use social media sites in Jordan and also in China and South Korea. However, perceived usability of social media sites did not have any influence on Jordanian B-to-B marketers' intention to use those sites. In addition, result demonstrability, of less importance in developed countries, was found to significantly influence Jordanian B-to-B marketers' intention to use social media sites. Image and subjective norms were found to influence perceived usefulness. Efficiency has no significant influence on perceived usability whereas error, satisfaction, learnability and memorability were found to significantly influence Jordanian B-to-B marketers' perceived usability of social media sites.

## **Research Implications**

This research contributes to the technology acceptance research field and particularly the area of B-to-B firms' use of social media sites. It combined (i) the extended technology acceptance model and (ii) the attributes of system acceptability model, to further the understanding of the factors that influence on the use of social media sites by B-to-B firms in emerging countries.

For practitioners, this research provides guidance on how to increase social media use by Bto-B marketers in emergent countries through enhancing the factors that stimulate the use of social media sites in this particular context.

## **Originality/Value/Contribution of the paper**

Very few studies conducted in emerging countries highlights differences in the factors influencing the use of social media sites compared to those identified in studies conducted in developed countries. This research adds value to the growing research area on B2B firms' use of social media sites as well as to the technology acceptance research field, by identifying and discussing the most important factors influencing B-to-B marketers' intention to use social media in emergent countries contexts.

**Keywords:** Social media; perceived utility; perceived usefulness; perceived usability; intention to use; B-to-B; emerging country

#### **INTRODUCTION**

Social media sites are versatile technologies that have been dominating the last decade (Zimmermann, 2018). Firms are increasingly using social media sites in their activities since entrepreneurs and business developers understood the importance of integrating social media sites within firms' marketing strategy (Lamberton and Stephen 2016; Humphreys 2015, Akhtar et al. 2014), as a an important marketing communication tool (Meier, Ballings, Poel 2017; Itani, Agnihotri, and Dingus 2017; Bolat, Kooli, and Wright 2016) and, for B-to-B firms, as "a major source of market intelligence" (Pitt et al. 2018, 8). In a future most likely to be dominated by technology, a company's communication strategy could fail without an active online business communication (Patrutiubaltes 2016), and, to gain a high market share, companies must embrace developing technologies to keep pace with their competitors (Minsky and Quesenbery 2015; Rodriguez, Peterson, and Krishnan 2012). The development of information technologies has been influencing the way organizations interact with their clients and managers logically sought to embrace digitization to secure a better position in the market (Luo, Zhang, and Duan 2013; Schultz, Schwepker and Good 2012; Hunter and Perreault 2007).

While social media sites use by B-to-B firms is gaining interest, evidences from different countries show reluctance from B-to-B marketers to use social media sites. Studies carried out in the US and Europe have shown that 55% of B-to-B firms use social media sites to socialise with peers inside and outside the organisation i.e. compared to 29% that integrate social networks to perform their job tasks (Keinänen and Kuivalainen 2015). In addition, B-to-B firms from western countries constitute the background for the great majority of the research on social media sites adoption and uses which limits the generalizability of extant research in emerging economies. Brennen and Croft (2012) claimed that the US pioneer social media use in a B-to-B context. However, in the new prevailing social and economic

context globalisation and the worldwide adoption of information and communication technologies (Kraemer, Gibbs, and Dedrick 2005) the use of social media sites by B-to-B firm cannot be ignored (Lichtenthal and Eliaz 2003), especially for B-to-B business activities that are reckoned to be more global (Porter 1986) and interactive (Håkansson and Snehota 1989). Hence, it is essential for B-to-B firms to appropriately manage social media and have an explicit social media strategy (Lashgari et al. 2018). As a result of the globalisation and the widespread adoption of social media, designing appropriate social media strategies is essential for B-to-B firms in emergent countries.

To date, limited studies focused on B2B social media use in emerging countries (Shaltoni 2017). For instance, in Jordan, Internet penetration reached 80.0% penetration and Facebook penetration reached 70% (statista 2017). Conversely, whilst B-to-B firms have been trying to benefit from social media sites by integrating them in their marketing strategies, ElMasry et al. (2016) argued that the country still lag behind in terms of using social media sites by B2B firms. Therefore, in emergent countries, it is important to map and understand the factors that influence B-to-B firms' use of social media sites (Lacka and Chong 2016).

Moreover, the factors that influence B-to-B firms use of social media sites in emerging countries are underinvestigated (Pascucci, Acillai and Cardinali 2018). Whilst extant research addressing the use of social media by B-to-B firms was carried out in Western context, very few studies (Shaltoni 2017; Lacka and Chong 2016) were carried out in emergent countries, with limited opportunities to capture what factors are more influential in those countries (Pascucci, Acillai and Cardinali 2018). Much of this research is rooted in Nielsen (1993) work according to which usability is an important antecedent of technology adoption behaviour, Lu and Yeung (1998) work claiming that the adoption of a technology is the outcome of usefulness which is a combination of utility (functionality) and usability. Studies in emergent countries remain scarce: taking the Chinese context, Lacka and Chong (2016)

emphasised perceived usability, perceived usefulness and perceived utility of social media as antecedents of the adoption of this technology. In their suggested framework, the authors emphasised the antecedents of perceived usability. However, in the B-to-B context - where accountability for results and benefits (Michaelidou et al. 2011) is important- subjective norms, image and results demonstrability are important determinants of perceived usefulness (Venketash and Davis 2000) and should be also considered.

In line with previous studies, this research paper draws on the extended technology acceptance model (Venketash and Davis 2000) and the attributes of system acceptability model (Nielsen 1993) to provide a coherent, comprehensive articulation of the factors that drive B2B marketers in emerging countries to use social media sites.

Hence, the research question is: what factors influence the use of social media by B-to-B firms in emergent countries?

The first section, presents a mapping of the factors that influence the use of social media by B-to-B firm based on existing literature. In the next section, the method and methodology employed in this study are examined. Finally, a discussion of the theoretical significance of the findings of this study and the implications for B-to-B firms in emerging countries are discussed.

#### Why do B2B firms use social media?

In a very competitive world, for both B-to-B and B-to-C firms, achieving positive outcomes and maintaining long term relationships is essential. In addition, the digital era lead B-to-B relationships to become increasingly global allowing for further opportunities but also risks for businesses (Kandampully 2003; Porter 1986). To take advantage of these opportunities, it is fundamental for firms to embrace new technologies (Patrutiubaltes 2016; Rodriguez, Peterson, and Krishnan 2012) and continuously use them to enhance the trustworthiness of the firm using the technology (Banerjee and Ma 2014).

Recently, social media sites have become an important technology that facilitated the process of expanding the customer base, promoting products and services of B-to-C companies (Harrison, Plotkin and Stanley 2017; Schultz, Schwepker and Good 2012). in addition, extant literature has demonstrated the benefits of using social media sites in B-to-B firms marketing strategies (Lashgari et al. 2018; Lacka and Chong 2016; Moore, Hopkins, and Raymond 2013; Brennan and Croft 2012; Jussila, Kärkkäinen, and Leino 2012; Aghnihotri et al. 2012). Whilst in Western countries, B-to-B firms widely use social media sites (Brennen and Croft 2012) to communicate with their main stakeholders i.e. customers and suppliers (Itani, Agnihotrib, and Dingusc 2017; Michaelidou, Siamagka, and Christodoulides 2011), it has been argued that these firms are not using social media as effectively as their B-to-C counterparts in their outreach to customers (Harrison, Plotkin and Stanley 2017).

Firms are using more and more complex and powerful tools in their everyday activities and involving a human-technology interaction which success depends on user's systematic evaluation of the technology usability (Adler and Winograd 1992). Nielsen (1993) reinforced that usability is an antecedent of technology adoption. Lu and Yeung (1998) added that the adoption of technology is the outcome of usefulness which is a combination of utility (functionality) and usability. Davies (1989) emphasised the influence of perceived usefulness and perceived ease of use on both self-reported current usage and self-predicted future usage of a technology.

Extant studies have built on these theories to examine the use of digital tools, for example the use of emails (Serenko 2008), e-commerce (Yoon 2009), and social media sites for B-to-C usage (Cheung et al. 2011; Lin and Lu 2011).

More recently, Lacka and Chong (2016), argued that attribute model's (Nielsen 1993) usability and technology acceptance model's (Venkatech and Davis 2000) ease of use have both the same meaning i.e. the ability to adopt a new technology, and both approaches demonstrated that perceived usability, perceived usefulness and perceived utility are antecedents of technology adoption behaviour by B-to-B firms. Shackel (1991) reinforced that to be accepted, a system must appropriately fulfil users' requirements of usability, utility and usefulness.

Recently, a systematic literature review has been carried out to emphasise three types of factors i.e. personal, organisational and external, influencing social media sites use by B-to-B firms mostly from developed countries (Pascucci, Acillai and Cardinali 2018). This research contributes to understanding what hinders the use of social media sites by B-to-B firms in emergent countries and draws on the extended technology acceptance model (Venkatesh and Davis 2000) and the model of attributes of system acceptability (Nielsen 1993) to design a comprehensive framework. Both theories were validated by extant literature in technology adoption, hence, it is safe to use and combine these theories to better understand the factors that influence B2B marketers use of social media sites in emerging countries.

#### **Conceptual framework**

#### Perceived usefulness and its antecedent

Perceived usefulness is an important antecedent of user acceptance of technology and the most important driver of adoption (Siamagka et al. 2015). It can be defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis 1989, p. 320). Image, subjective norms and results demonstrability are key antecedents of perceived usefulness (Venketash and Davis 2000; Moore and Benbasat 1991).

#### **Results demonstrability and perceived Usefulness**

Results demonstrability can be defined as "the tangibility of the results of using the innovation" (Moore and Benbasat 1991, p. 203). It reveals the degree to which the results of the use of a technology are tangible in an organization and refers to the difficulty users could experience whilst communicating and transmitting those results to others (Venketash and Davis 2000). Michaeliedou et al. (2011) emphasised that social media sites generate significant outcomes in terms of attracting new customers therefore such outcomes are directly related to the usefulness of those sites. The authors also claimed that in B-to-B relationships, there is an increasing call for accountability and hence emphasised the tangibility of the results of an innovation claimed by Moore and Benbasat (1991). However, Siamagka et al. (2015) claimed that the relationship between results demonstrability and perceived usefulness of social media sites by B-to-B organizations is not significant.

## Subjective norms and perceived Usefulness

Fishbein and Ajzen (1975, pp. 302) defined Subjective norms as "a person's perception that most people who are important to him think he should or should not perform the behavior in question". Subjective norms were first introduced in the theory of reasoned action (Fishbein and Ajzen 1975) and in the theory of planned behavior (Ajzen 1991) as a direct influencer of behavioural intention. Venkatesh and Davis (2000) claimed that individuals decide to perform a particular behaviour, even if they are personally not favorable towards it, if they believe they should conform to referents (i.e. friends, family, or society in general). Furthermore, it is the pressure of social context on an individual when deciding to act in a certain way (Fishbein and Ajzen 1975). Additionally, it has been demosntarted that subjective norms have an indirect effect via perceived usefulness on intention to use a technology when usage is voluntary (Venkatesh and Davis 2000). Moreover, subjective norms have a positive influence in the first stages of adopting social media sites where users' opinion can be manipulated when being told about the benefits of using social media sites (Taylor and Todd 1995; Pookulangara and Koesler 2011). Furthermore, subjective norms were found to play an influential role through addressing the usefulness that can be derived by B-to-B salespeople when using online platforms i.e. sales acceleration (Guesalaga 2016).

## Image and perceived Usefulness

Image was defined by Moore and Benbasat (1991, p. 195) as "the degree to which use of an innovation is perceived to enhance one's status in one's social system". On this point, image found as an important predictor of perceived usefulness of technologies. was Furthermore, image refers to users' perceptions about the prestige and status resulting from using a technology which in return will influence indirectly the intention to use this technology (Venkatesh & Davis, 2000). Bruhn, Schoenmueller, and Schäfer (2012) and Siamagka et al. (2015) indicated that image significantly influences the perceived usefulness of social media sites by B-to-B organizations. Besides, Kaplan and Haenlein (2010) claimed that B-to-B marketers beleive that using social media sites is important because it provides them with a high status and a consistent identity, which is very useful to present themselves in the digital world. Therefore, Schau and Gilly (2003) and Kaplan and Haenlein (2010) declared the more positive the image of using social media is the more perceived usefulness will be of those sites by B2B marketers . On the same line, Jussila, Kärkkäinen, and Aramo-Immonen (2014) suggested B-to-B marketers who utilize social media sites will be better appreciated by customers. Based on the above assumptions, it is suggested,

H1a: Results demonstrability has an impact on B-to-B marketers' perceived usefulness of social media sites.

H1b: Subjective norms have an impact on B-to-B marketers' perceived usefulness of social media sites.

H1c: Image has an impact on B-to-B marketers' perceived usefulness of social media sites.

#### Perceived usability and its antecedent

Pioneering work by Davis (1989) emphasized perceived ease of use as an important determinant of technology acceptance and defines it as "the degree to which a person believes that using a particular system would be free of effort (Davis 1989, p.320). Nielsen (1993, p. 26) "the assessment of how easy it is to use social media sites and how effective it is in helping users accomplish their social-media-related needs". In the following paragraph, the antecedents of perceived usability i.e. learnability, error, memorability, efficiency, and satisfaction (Nielsen 1993) are discussed.

## Learnability, error and perceived usability

Learnability is defined as the degree to which a system allows users to effectively interact with others and attain maximum performance (Nielsen 1993). The author claims that learnability is a primary attribute for usability which in return determines the use of a technology. Hence, to be used, a technologies has to be easy to learn; nonetheless, notwithstanding that most technologies are simple, some emerging technologies oblige users to take extensive training programs in order to acquire skills and perform well. Siamagka et al. (2015) added that social media sites are not complex and their use only require transferring the existing skills from social to a business context and do not involve advanced training. However, Buehrer, Senecal, and Pullins (2005) argued that B-to-B marketers are reluctant to use social media sites in their workplace due to lack of training and upskilling. Moreover, Rollins, Nickell, and Wei (2014) demonstrated that a lack of knowledge of social media sites influences the adoption of such sites and that inadequate professional trainings can lead to a negative perception of social media usability. Moreover, Gefen and Straub

(2000) claimed that as comprehension and knowledge are considered at the heart of learning for social media, learnability appears to be a significant indicator of the perceived usability. Lacka and Chong (2016) also demonstarted the positive relationship between learnability and perceived usability. Hence for B-to-B marketers, training and education are important so they can make good use of digital technologies without doing mistakes (Obal and Lamini 2014). Though determining factors that influence the use of social media sites in the B-to-B context, results emphasised a significant relationship between learnability and marketers perception of usability as the more social media sites were perceived to be easy to learn they were perceived as usable (Lacka and Chong 2016).

Lacka and Chong (2016, p.87) consider as an error 'any action that can hinder achievement of a desired goal'. To accept to use a technology, B-to-B marketers would expect a low number of errors to happen as well as the possibility to easily recover from them (Nieslson 1993). Kaplan and Haenlein (2010) revealed B-to-B marketers perception of the possibility of making errors or a mistake i.e. introducing personal comments on a company's official page, significantly influences the use of social media sites. Similarly, revealing confidential information or transferring negative content that can harm the organization are errors that may negatively influence companies B-to-B future plan for adopting social media sites (Stimula et al. 2013). Besides, Nordlund, Lempiälä, and Holopainen (2011) emphasised errors' negative influence on the perceived usability of social media sites resulting in negative influence on the B-to-B marketers of social media sites. From another point of view, Lacka and Chong (2016) suggested that social media users are able to easily recover from errors and they consider those sites as being easy to use. Therefore, the following hypotheses are derived, H2a: Learnability has an impact on B-to-B marketers' perceived usability of social media sites.

H2b: Error has an impact on B-to-B marketers' perceived usability of social media sites.

## Memorability, efficiency, and satisfaction and perceived usability

Based on Nielson (1993), the extent to which a user can remember how to use social media determines the usability of social media. Lacka and Chong (2016) demonstrated that memorability significantly influence perceived usability of social media sites. Moreover, the authors suggested that social media usage is easy to remember.

Efficiency was identified by Nielson (1993) as an important determinant of usability. However, Lacka and Chong (2016) argued that the efficiency of social media sites significantly and negative influence the perceived usability of such sites in the B-to-B context.

Satisfaction was defined by Lindgaard and Dudek (2007) as the degree to which the system meets the users' expectations and needs. Nielson (1993) claimed that satisfaction is an important determinant usability of a technology. Bagozzi and Warshaw (1992) claimed that to understand the motives of the use of technology, it is important to distinguish between the hedonic and the utilitarian values. Siamagka et al. (2015) added that pleasure seeking motives influence social media interaction and usability within the business context. Hasan and Li (2008) claimed that both interface and content determine user satisfaction of a technology. However, Lacka and Chong (2016) addressed the use of social media sites by Chinese B-to-B marketers and suggested that the relationship between satisfaction and perceived usability is not

H2c: Memorability has an impact on B-to-B marketers' perceived usability of social media sites.

H2d: Efficiency has an impact on B-to-B marketers' perceived usability of social media sites.

H2e: Satisfaction has an impact on B-to-B marketers' perceived usability of social media sites.

#### Perceived utility, perceived usefulness and intention to use

Users of a technology assess whether its functionality does what is needed. This is referred to as perceived utility (Nielsen 1993). Previous research demonstrated that perceived utility influences technology adoption and users assess utility of a technology towards an intended goals (Lacka and Chong 2016; Lin and Bhattacherjee 2009; Nielsen 1993). In addition, perceived utility has a direct impact on intention to use a technology (Lacka and Chong 2016; Hassan and Li 2008; Nielson 1993). Hence, the following hypotheses can be stated:

H3: Perceived utility has an impact on (H3a) the perceived usefulness and (H3b)B2B marketers' intention to use of social media sites.

## Perceived usability, perceived usefulness and intention to use

Perceived usability is an important factor in the user experience (Thüring and Mahlke 2007). A range of literature demonstrated the significant relationship between perceived usability and intention to use a technology (Lacka and Chong 2016; Hassan and Li 2008; Lu and Yeung 1998; Nielsen 1993; Davis 1989). However, extant research shows disagreement on the relationship between perceived usability and perceived usefulness. Xiao (2010) and Lu and Yeung (1998) demonstrated the relationship between perceived usability and perceived

2015, Amin 2007; Hong, Thong, and Wong 2002;) added that the perceived usefulness of social media sites depends on how easy those sites are perceived by marketers. Additionally, it has been found that easiness of social media sites will increase users' confidence, readiness and intention to use those sites (Velderman et al. 2015). Besides, the more complex social media sites are perceived by employees, for example when implementing online ads and online campaigns and expanding the customer base, the more those sites will be perceived as being not usefull (Keinänen and Kuivalainen 2015). Whereas Lacka and Chong (2016) did not find a significant relationship between perceived usability and perceived usefulness. Nordlund, Lempiälä, and Holopainen (2011) added that B-to-B marketers prefer not to integrate social media in their marketing plan due to poor usability of such sites. Swani and Brown (2011) claimed that the interactivity nature of social media sites and the complexity of the communicating with consumers could have a negative impact on B-to-B marketers perceived usefulness.

*H4: Perceived usability has an impact on (H4a) the perceived usefulness, and (H4b) B-* to-*B marketers' intention to use social media sites.* 

#### Perceived usefulness and intention to use

Perceived usefulness is defined as "the extent to which a person believes that using the system will enhance his or her job performance, and perceived ease of use ...and also, the extent to which a person believes that using the system will be free of effort" (Venkkatesh and Davis 2000, p.187). According to a study that had been done in the B-to-B context, specifically industrial and IT firms, the perceived usefulness of social media sites could be measured through assessingthe extent to which it facilitates communication and reach relevant audiences (Velderman et al . 2015). Braun (2013) and Kang and Lee (2010) demonstrated the relationship between perceived usefulness and users' intention to adopt

social media sites. In addition, perceived usefulness plays an important role in the process of social media sites' adoption by B-to-B marketers (Buehrer, Senecal, and Pullins 2015) and results mostly from the benefits acheived by using such sites such as identifying new business opportunities, enhancing sales and increasing traffic on the company's website (Siamagka et al. 2015). While advantages stimulate perceived usefulness, some barriers i.e. lack of money, time and training, negative perceived usefulness, can hinder it which in return will negatively influence the intention to use social media by B-to-B marketers (Buehrer et al. 2005). On this point, Lacka and Chong (2016) emphasised a significant relationship between B-to-B marketers perceived usefulness of social media sites and their intention to use those sites. Additionally, Velderman et al. (2015) showed that social media sites are considered as useful by B-to-B marketers because they provide ways for new opportunities and offer quick information, hence, their intention to use such sites. Besides, it has been shown that perceived usefulness is a significant predictor of B-to-B marketers' intention to use social media (Itani et al. 2017; Lim 2017). Therefore, It is hypothesized that,

H5: Perceived usefulness has an impact on B-to-B marketers' intention to use social media sites.

#### <<Insert Figure 1: The Research Framework>>

## **METHODS**

The study's context and data collection

To test the research framework and the hypotheses, a survey questionnaire was administrated in English to a sample of B-to-B firms in Jordan. Jordanian B-to-B marketers have been tying to take advantage of the opportunities offered by social media sites and to integrate them in their marketing strategies (ElMasry et al. 2016). Consumers in Middle Eastern countries have extensively adopted social media sites (Statista 2017). However, B-to-B firms in those countries have not fully adopted social media. For example, Jordan is only capturing 8.5% of its digital potential (ElMasry et al. 2016).

In addition, in Jordan, even if some B2B marketers have embraced social media sites, they do not, or very little, interact with stakeholders on those sites (Shaltoni 2017). Statistics show that the Facebook penetration rate in Jordan has reached 70% (Statista 2017) which shows that individuals are keen to use social media sites in their private life but they are reluctant to use the sites in their workplace. Five initial interviews conducted with B-to-B marketers in Jordan confirmed that their interaction with their customers and suppliers on social media sites is limited to congratulate them on their promotion or greet them during special events i.e. religious and national events. Hence, in this study, the intention to use social media sites in workplace activities is used as a proxy for the actual use of those sites.

Lashgari et al. (2018) emphasised the role of B-to-B marketers in the adoption of social media sites. In addition, Nielsen (1993) claimed that the only individuals who can assess the usability of technology are the ones who use it for an intended task. Hence, B-to-B marketers who do not use social media sites were excluded.

The questionnaire was posted on Facebook, WhatsApp, and SMS. 165 B-to-B Senior Marketing Managers were were invited to click on the questionnaire link that was placed on Google Docs. A total of 158 fully completed questionnaire were recodred. Snow ball sampling method was used to choose B-to-B firms from a variety of industries in Jordan including financial, commercial, ICT, manufacturing and the tourism industry. Selecting one industry can limit the scope of research because Jordan is an emerging country with a small population and a limited number of industries. Besides, the study aims to provide a general overview of the use of social media sites by B-to-B marketers, hence, it is not imperative to consider only one industry.

All the research scale measurements were checked for inter-judge reliability and content validity by six academics in the field of B-to-B and marketing. Based on their comments regarding the suitability of the items and clarity of wording; the items were revised. Moreover, they were asked about the importance of each statement and to specify which items should be retained (Lichtenstein et al., 1990). Furthermore, a pilot study was conducted using 20 academics and practitioners in Jordan to examine the appropriateness, validity and freedom from error of the developed measures. Seven-point Likert-type scale measures were used (from 1=strongly disagree to 7=strongly agree). An exploratory factor analysis (EFA) and reliability test were conducted to identify any patterns in the data (De Vaus, 2002). This includes 105 male and 47 female respondents. The average age of respondents was 30 to 39 years (39.9%), and 18 to 19 years old (38%).

#### The survey measures

Measurement for the research constructs was based on established scales from previous research, proven to be statistically sound (Churchill 1999; Hair et al. 2016). The questionnaire contains five sections, (i) demographics, (ii) perceived usefulness (iii) perceived utility and its antecedents, (iv) perceived usability and its antecedents, and (v) intention to use (Table 1). Perceived usefulness was measured through five items using Lacka and Chong's (2016) scale. Perceived utility is an important indicator in the technology adoption process (Lee et al., 2003); it was measured through four items taken from Lacka and Chong (2016). Previous studies recognized antecedents of perceived usefulness utilised here; these include (i) results demonstrability (Siamagka et al. 2015), subjective norms (Venkatesh and Davis 2000), and image (Venkatesh and Davis 2000). The instrument for measuring

perceived usability and its antecedents (learnability, error, memorability, efficiency, and satisfaction) were adapted from Lacka and Chong (2016). To measure intention to use social media sites, this study utilised item measurement from Lacka and Chong (2016).

#### <<Insert Table 1>>

## Analyses and results

This study used partial least squares structural equation modelling to test and validate the research model employing Smart PLS 3.2. This method constitute a a set of processes that 'gives parataxis for the estimates, subset by subset, of structural parameters and loadings' (Fornell and Bookstein 1982, p.441). PLS/SEM is recommended for theoretical knowledge and properties of data depending on the research's objectives especially in marketing management and organizational fields (Chin et al. 1998). It has some benefits over more often used covariance-based SEM, such as small sample size, complex model including many indicators (Hair et al. 2016). The analysis includes separate assessments of the measurement approach which is the case of this study.

## Measurement model

The measurement model was used to measure the reliability and validity of the research construct. The preliminary research measurements were subjected to a series of factor and reliability analyses as a preliminary investigation of their performance within the entire sample. The item loadings were viewed in order to test the correlations between each variable and its chosen items. Hair et al. (2016) revealed items loading that are greater than 0.6 were retained, while those that vary between (0.4 and 0.6) were examined against construct

validity and reliability. Items loadings that were lower than 0.4 were excluded from the analysis. As a result, all items were above 0.6 which is consistent with the accepted level, and therefore indicating valid and reliable items, as shown in Table 1. Cronbach's  $\alpha$  and composite reliability were examined to measure the internal consistency and reliability. The results illustrates that all scores considered acceptable to high reliabilities (after conducting the second round testing), with alpha scores exceeding the .70 threshold, were considered as satisfactory (Nunally and Bernstein, 1994).

The model fit was assessed by examining the amount of variance explained by  $R^2$  (Hair et al. 1998) as well as the predictive ability of the dependent variables (Chin, Marcolin, and Newsted 1998). Hair et al. (2013) indicate that the minimal level for a construct's  $R^2$  should be above 0.10. For instance, the  $R^2$  value of 'Usability' was found moderate and equal to 56.2%, and 'Intention to Use' was found 53.3%. Usefulness was 58.8% and actual usage was 12%. Therefore, it was crucial to examine the path significance accompanied with these variables.

Convergent validity refers to the degree to which a measure converges or overlaps with other measures of the same construct (Hair et al. 2016) which is accomplished when the AVE scores is greater or equal to 0.5 (Hair et al. 2016). As indicated in Table 1, the AVE scores for all constructs in the model were more than 0.5, thus demonstrating convergent validity. An alternative approach to evaluating the convergent validity is to inspect the constructs' composite reliability (Fornell and Larcker 1981). Table 1 shows that all constructs demonstrated acceptable composite reliability scores through exceeding the .70 cut off point (Hair et al. 2016). Discriminant validity is checked for each construct and the average variance extracted (AVE) for each construct is higher than the squared correlation between that construct and any other construct in the model. Hence, discriminant validity holds for all constructs used in the study.

#### Structural model assessment

After confirming the construct measures, the structural model results were examined. The process of assessing the structural model included determining the paths significance, the predictive strength of the model, and bootstrapping random samples from the original data set (Hair et al. 2016). The collinearity among the constructs was examined before conducting the path coefficient test. Then, each set of predictors in the structural model was tested for collinearity and the results show that each predictor has a VIF value lower than 0.5. Afterward, the significance of path coefficients was tested to examine the hypothesized relationships proposed by the conceptual framework. The bootstrap *t*-statistics determine the stability of the estimates; acceptability is considered above 1.96 at 95% confidence interval (Chin, Marcolin, and Newsted 1998) (Table 2).

The statistics show that H1a the impact of results demonstrability on perceived usefulness ( $\beta$ =0.186, p<0.001), the impact of subjective norms on perceived usefulness (H1b  $\beta$ =0.166, p<0.001), and the impact of image on perceived usefulness (H1c  $\beta$ =0.125, p<0.001) are supported. H2a, the impact of learnability on perceived usability ( $\beta$ =0.390, p<0.001), H2b, the impact of error on perceived usability ( $\beta$ =0.129, p<0.001), and H2c, the impact of memorability on perceived usability ( $\beta$ =0.129, p<0.001), and H2c, the impact of memorability on perceived usability ( $\beta$ =0.183, p<0.001) are supported. However, H2d is not supported (impact of efficiency on perceived usability  $\beta$ =0.014, p<0.001) which means that the efficiency has no impact on the perceived usability of social media sites by B2B organizations. H2e was supported ( $\beta$ =0.157, p<0.001) and it shows a positive impact of satisfaction on perceived usability. H3a (the impact of perceived utility on perceived usefulness) and H3b (the impact of perceived utility on intention to use) are both supported with  $\beta$ =0.26 and  $\beta$ =0.38 (p<0.001) respectively. The results illustrate the impact of perceived usability (H4a) ( $\beta$ =0.21). H4b shows that the impact of perceived usability on intention to use

social media sites is not significant ( $\beta$ =0.09, p<0.001). H5 is supported ( $\beta$ =0.42, p<0.001) showing the impact of perceived usefulness on intention to use (Table 2).

Lastly,  $R^2$  values of the endogenous variables in the path model were examined. Furthermore, to examining the magnitude of the  $R^2$  values for its predictive accuracy, Gtone-Geisser's  $Q^2$ value was tested by employing the blindfolding procedure for an omission distance D.=7 (Chin, Marcolin, and Newsted,1998). The structural model is believed to have predictive relevance because all the endogenous variables have  $Q^2$  greater than 0.5 (Table 3) (Hair et al., 2016; Urbach and Ahlamann 2010;Wixom and Todd 2005), which hence provide support for the model's predictive relevance.

#### <<<Insert Table 2>>>

<<<Insert Table 3>>>

#### DISCUSSION

## Perceived usefulness and its antecedent

*Results demonstrability and perceived usefulness* - This result provided support for the relationship between results demonstrability and perceived usefulness in B-to-B organizations. This result implies that Jordanian B-to-B marketers do not see the benefit from using social media sites in their everyday activities. It also, indicates that even if there are some attempts to use social media sites, B-to-B marketers are not communicating well the outcomes of such practices. This finding is in line with Venkatesh and Davis (2000) study claiming that perceived usefulness of a technology depends on results demonstrability which refers to the level of discernibility of those results and the employees' difficulty in communicating the results to others in the organization. However, this result contradicts

Siamagka et al.' (2015) findings which rejected this relationship in their study conducted in the UK. British B-to-B firms are in an advanced stage of using social media sites in their activities whereas Jordanian B-to-B firms are at a very early stage of using social media sites in their activities. This social media maturity may explain the different outcome in this study. The findings emphasise the social media sites adoption gap in Jordan where B-to-B marketers still need proof that the technology can be beneficial.

*Subjective norms and perceived usefulness* - The findings demonstrated this relationship which means that positive subjective norms lead to higher perceived usefulness to use them in the Jordanian context. This result is in line with previous research which emphasised the relationship between subjective norms and perceived usefulness of a technology (Venkatesh and Davis 2000; Guesalaga 2016), which indicates that for Jordanian B-to-B marketers, and similarly to B-to-B marketers in developed countries, their perception of the way people who are important to them think he should or should not use social media sites, influence their use of those sites (Fishbein and Ajzen 1975). In this matter, Jordanian B-to-B marketers are not different than their peers in developed countries.

*Image and perceived usefulness* - In relation to hypothesis H1c, the data analysis showed that image significantly influence perceived usefulness of social media sites. Jordanian B-to-B marketers think that using social media sites enhances their status in the organization (Moore and Benbasat 1991). Also, the findings reveal that image enhancement efforts are linked with a greater appreciation of social media sites as useful marketing tools. similar findings has been emphasized in previous studies i.e. Siamagka et al. (2015) and Bruhn, Schoenmueller, and Schäfer (2012) that have demonstrated a significant relationship between image and perceived usefulness. Hence, Jordanian B-to-B marketers should integrate social media sites in their marketing plans. In doing so, B-to-B marketers will feel that using social media whilst performing their tasks, could enhance their status in the organization, and this

will influence their perception of the usefulness of social media sites. Similarly, image as a factor influencing the perceived usefulness of social media sites, is important in developed country context as most of previous studies (Siamagka et al. 2015; Bruhn, Schoenmueller, and Schäfer 2012; Venketash and Davis 2000; Moore and Benbasat 1991) have validated this hypothesis.

#### Perceived usability and its antecedent

*Learnability and perceived usability* - The results support hypothesis 2a, suggesting that learnability has an impact on the perceived usability of social media sites by B-to-B organizations. The more social media sites are seen as easy to learn and understand, the higher their perceived usability will be and the more they were seen as difficult to learn the lower their perceived usability will be. This significant relationship confirms Nielsen's (1993), Lacka and Chong's (2016) and Holden and Rada's (2011) findings conducted in both developed and emerging countries.

*Error and perceived usability* - The findings support H2b. Error has an impact on the perceived usability of social media sites by B-to-B organizations which is consistent with Nordlund, Lempiälä, and Holopainen (2011). However, Lacka and Chong (2016) found that there is no significant relationship between error and perceived usability. This finding indicates that for Jordanian B2B marketers, unlike Chinese B-to-B marketers, making a mistake whilst using social media sites influences their perceived usability of those sites, and hence, indirectly determine the intention to use social media. This perhaps, is linked to the fact that Jordanian B-to-B marketers are at a very early stage in the use of social media to perform their work tasks. Which makes them more aware of the mistakes they commit whilst using social media sites. Jordanian B2B marketers seems to be different from Chinese peers. In an early stage of the use of social media, committing errors can be discouraging for B-to-B marketers in Jordan. Whereas in China, even if most of B-to-B marketers are still reluctant to

use social media sites, they are at a relatively advanced stage of the use of this technology (Lacka and Chong 2016).

*Memorability and perceived usability* - In addition, the relationship between memorability and perceived usability of social media sites by B-to-B marketers was significantly supported. This finding confirms Lacka and Chong (2016) study and indicates that for social media sites to be used they must be easy to remember. This finding also confirms results from studies conducted in developed countries (Holden and Rada 2011) which shows that the effect of memorability on perceived usability of social media sites is similar in different contexts i.e. developed and emerging countries.

Efficiency and perceived usability - Surprisingly, efficiency of social media sites did not have have a significant influence on Jordanian B-to-B marketers' perceived usability. Therefore, this relationship was rejected. This research finding is in line with Lacka and Chong (2016) findings of this relationship. This implies that in Jordanian B-to-B firms, efficiency reflects usability for personal use only and B-to-B marketers would pay more attention to the effectiveness of the tools they use in their personal lives i.e. they would use social media sites to communicate more effectively with family and friends (Neilsen 1993). however, in the Bto-B context efficiency does not seem to influence perceived usability of social media sites. By using social media sites, B-to-B marketers are not expecting any implications in terms of performance or productivity. These two studies are carried out in emerging countries i.e. China and Jordan. In a Western context, it has been demonstrated that B-to-B organizational members perceive social media sites to have a lower overall effectiveness as a channel and hence identify it as less important for relationship oriented usage than other business models (Iankova et al. 2018). In addition, the finding for this hypothesis contradicts Nielsen's (1993) study conducted in a developed country and claiming that efficiency influence usability. However, Nielsen's study considered technologies other than social media sites.

*Satisfaction and perceived usability* - The findings support this hypothesis and enphasise a significant relationship between satisfaction and perceived usability. These findings contradicts Lacka and Chong's (2016) study conducted in China and indicating that there is not a significant relationship between satisfaction and perceived usability. This can be explained by the cultural mind-set of the Jordanian context where fun and attainment could explain the usability in the social and business fields. For Chinese B-to-B marketers, however, the satisfaction derived from the use of social media sites does not influence perceived usability and hence, its role is not significant in the adoption of social media in Chinese B-to-B firms.

**Perceived utility, perceived usefulness, and intention to use** – the findings suppoted this relationship. Chang (2010) and Lacka and Chong (2016) studies previously suggested that there is significant relationship between perceived utility and perceived usefulness. It seems that B-to-B marketers in Jordan, perceive social media sites as useful when the utility gained from this technology is important. Additionally, the functionalities provided by social media sites trigger the mental debate of B-to-B marketers to use those sites. In addition, this finding confirms Jarvinen et al.'s (2012) and Lacka and Chong's (2016) results which asserted that perceived utility has a significant impact on B-to-B marketers' intention of to use social media sites. In both emerging and developed countries, perceived utility is an important factor influencing perceived usefulness and intention to use social media sites.

**Perceived usability, perceived usefulness and intention to use** - The relationship between perceived usability and perceived usefulness was supported throughout research findings contradicting Lacka and Chong (2016) findings which indicate that relationship between perceived usability and perceived usefulness of social media sites by Chinese B-to-B marketers is not significant. However, there is no significant relationship between the perceived usability of social media sites and the intention to use those sites. Hence, H4b is

rejected. This result contradicts Lacka and Chong (2016) assertion of this relationship. Jordanian B-to-B marketers use social media sites for personal purposes, since the social media sites penetration rate in Jordan has reached 70% (Statista 2017). However, this does not mean necessarily that they would also use it as much in performing their job tasks. This finding emphasises a lack of interest in using social media sites in their everyday activities, this can be considered as B-to-B marketers' apathetic motivation (Vallerand, Fortier, and Guay 1997). This apathetic motivation engenders an inertia or "a lack of hope" that could negatively influence B-to-B marketers' intention to use social media sites for business purposes (Levin, Hansen, and Laverie 2012, p.382). Hence, B-to-B marketers' adoption of social media sites is the outcome of usefulness defined as the combination of utility (functionality) and usability (Lu and Yeung 1998). Considering Lacka and Chong' s (2016) study conducted in China, it seems that Chinese B-to-B marketers have more hope and are more enthousiastic about using social media sites in their workplace.

**Perceived usefulness and intention to use** - This relationship is supported suggesting that social media sites' perceived usefulness exerted a significant influence on B-to-B marketers' intention to use social media sites. This implies that Jordanian marketers who perceive social media sites as highly useful are more likely to use this technology and are more likely to accept it and vice versa. This finding is in line with the results of previous studies. For example, Lacka and Chong (2016) empirically confirmed that perceived usefulness of social media sites is a significant factor that influences Chinese B-to-B marketers' intention to use them. In a similar approach, Kang and Lee (2010) indicated that South Korean B-to-B marketers' intention to use social media sites is significantly affected by perceived usefulness.

The above discussion highlights similarities in the factors affecting the intention to use social media sites in emergent countries: perceived usefulness and perceived utility were found to

significantly influence the use of social media sites in Jordan and also in China and South Korea. However, perceived usability of social media sites did not have any influence on Jordanian B-to-B marketers' intention to use those sites. In addition, result demonstrability, of less importance in developed countries, was found to significantly influence Jordanian B-to-B marketers. Studies conducted in emerging country agree that efficiency has no significant influence on perceived usability. This result implies that whilst using social media sites, B2B marketers are not expecting any improvement in terms of work productivity. Finally, satisfaction and error were found to influence Jordanian B-to-B marketers perceived usability and this result was not confirmed in China (Lacka and Chong 2016).

### **Implications for B-to-B marketing practice**

To improve their marketing strategy and performance, B-to-B firms in Jordan should be better using social media. To achieve this, the findings of this research highlight the need to better understand B-to-B marketers' intention to use social media sites. These findings represent a critical aspect of the responses to such sites and this could impact the adoption trends of those sites. The findings emphasised that Jordanian B-to-B marketers' perceived usefulness influences their intention to use social media sites. In addition, perceived usefulness of social media sites is determined by result demonstrability, subjective norms and image on one hand, and on the other hand by both of the perceived utility and perceived usability of those sites. Consequently, decision makers in B-to-B firms are encouraged to establish social media sites' use awards to motivate their employees to use those sites in their activities. Attention must be paid to the role of result demonstrability, subjective norms and image. B-to-B firms should provide incentives and value users of social media sites. Also, performance of B-to-B marketers as a result of their use of social media should be highlighted and praised. Moreover, B-to-B firms should invite social media specialists to speak to the employees on the benefits of using social media tools in the day to day business activities.

The research findings also emphasised the impact of learnability and memorability on the perceived usability of social media sites. Hence, decision makers in B-to-B firms must provide assistance and help, i.e. training, to their employees so they can constantly upgrade their knowledge and refresh their capabilities in relation to social media sites.

Additionally, marketing directors are advised to supervise and support young marketers to ensure low number of errors on social media sites. In addition, the findings indicate that B-to-B marketers in Jordan value the adoption of social media sites because it enhances their image. Therefore, there is a growing desire in B-to-B firms to invest in social media sites. Remarkably, efficiency is not a factor that can influence the perceived usability of those sites. To enhance social media sites use by B-to-B marketers, it is important to demonstrate that their use leads to better productivity. Decision makers could organise seminars and training to showcase successful experience among peers. Furthermore, in order to increase the intention to use social media in Jordanian B-to-B firms, the perceptions of utility, usability and usefulness must be amplified throughout the guidance of organizations.

#### **Implications for theory**

This study provides several theoretical implications. It adds value to the current technology acceptance research field and specifically the area of B-to-B social media sites use by combining two models (i) the extended technology acceptance model and (ii) the model of the attributes of system acceptability. In addition, it responded to Lacka and Chong (2016) calls for testing the usability attributes suggested by Nielsen (1993) in a different region and for Itani, Agnihotri and Dingus et al. (2017) calls of investigating factors that foster the use of social media sites in B-to-B context.

Several factors influencing B-to-B marketers intention to use social media sites in emerging countries context i.e. image, subjective norms and result demonstrability, have a significant effect on perceived usefulness which in turn have an influence on B-to-B marketers' intention to use social media sites. In addition, efficiency which has no significant effect on B-to-B marketers' perceived usability of social media sites in emerging countries seems to be consisting across countries; whereas there is no agreement about satisfaction and errors effect on B2B marketers' intention to use social media sites. Furthermore, the effect of perceived usability has an indirect effect on B2B marketers' intention to use social media sites. This shows that when the use of a technology is not linked to the performance, users will then consider whether it fulfils the tasks expected.

#### Limitation and future research

Three main limitations may affect the findings of this research. Firstly, the size of the sample is relatively small. Although it is in line with sample sizes in previous publications, this could affect and restrict the data analysis method. Secondly, the data were collected in Jordan and some findings reinforced previous findings achieved in other emerging countries (Lacka and Chong 2016). For example, the findings emphasised that efficiency does not predict social media sites perceived usability in Jordan. Other findings were not consistent with previous studies. For example, error and satisfaction were found to significantly influence social media usability for Jordanian B-to-B marketers, whereas, for Chinese B-to-B marketers, those factors were proven to be not significant. Hence, it would be interesting to extend data collection to other emerging countries in order to better understand the factors that influence B-to-B marketer's intention to use social media sites' use in emerging countries. Thirdly, Perceived utility antecedents are not considered in this study. Future studies could include the antecedents of perceived utility e.g. relevance, novelty, credibility and comprehensibility

(Moenaert and Souder 1996) to further the understanding of the factors influencing social media sites in developed and emerging countries.

Finally, differences in this study's findings and Lacka and Chong (2016) findings, suggest that cultural factors could be important moderators of the identified relationships, and therefore, comparative studies conducted in several emerging countries could be an interesting future research avenue.

## References

Ajzen, I. 1991. The theory of planned behavior. *Organizational behavior and human decision* processes, 50(2), 179-211.

Agnihotri, R., Dingus, R.Hu, M.and Krush, M.T., 2016. Social media: Influencing customer satisfaction in B2B sales. *Industrial Marketing Management*, 53,172-180.

Adler, P.S. and Winograd, T.A. 1992. *Turning technology into tools*, Oxford University Press, New York ,Oxford

Amin, H. 2007. Internet banking adoption among young intellectuals. *The Journal of Internet Banking and Commerce*, 12(3), 1-13. Available in: http://www.arraydev.com/commerce/JIBC/200712/Hanudin\_Final.pdf (accessed on 21August 2018).

Akhtar, N., Azeem, S. M. and Mir, G. M., 2014. Strategic Role of Internet In Smes Growth Strategies. *International Journal of Business Management & Economic Research*, 5 (2), 20-27.

Banerjee, P. and Ma, L. 2014. The Process of Trust Formation in E-Business: Insights from Case Studies of Two Small Firms, *Journal of Business-to-Business Marketing*, 21 (3),171–186.

Bolat E., Kooli, K. and Wright, L. T. 2016. "Businesses and mobile social media capability", *Journal of Business & Industrial Marketing*, 31 (8) 971-981

Braun, M. T. 2013. Obstacles to social networking website use among older adults. *Computers in Human Behavior*, 29(3), 673-680.

Brennan, R., and Croft, R. 2012. The use of social media in B2B marketing and branding: An exploratory study. *Journal of Customer Behaviour*, 11(2), 101-115.

Bruhn, M., Schoenmueller, V., and Schäfer, D. B. 2012. Are social media replacing traditional media in terms of brand equity creation? *Management Research Review*, 35(9), 770-790.

Buehrer, R. E., Senecal, S., and Pullins, E. B. 2005. Sales force technology usage—reasons, barriers, and support: An exploratory investigation. *Industrial Marketing Management*, 34(4), 389-398.

Chang, H. H. 2010. Task-technology fit and user acceptance of online auction. *International Journal of Human-Computer Studies*, 68(1), 69-89.

Cheung, C., Chiu, P., and Lee, M., (2011). Online social networks; Why do students use Facebook?. *Computers in Human Behaviour.* 27, pp. 1337 – 1343

Chin, W. W., Marcolin, B. L., and Newsted, P. R. 1998. A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information systems research*, 14(2), 189-217.

Churchill, G.A. 1999. *Marketing Research*. New York: The Dryden Press.

Davis, F. D. 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 13(3), 319-340.

Elmasry, T., Benni, E., Patel, J., and Moore, J. P. 2016. Digital Middle East: Transforming the region into a leading digital economy [online]. Available from: file:///C:/Users/DELL/Downloads/Digital-Middle-East-final updated%20(2).pdf[ Accessed 27 July 2017]

Fishbein, M. and Ajzen, I. 1975. *Belief, attitude, intention, and behaviour: An introduction to theory and research.* London: Longman Higher Education

Fornell, C., and Bookstein, F. L. 1982. Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing research*, 19(4), 440-452.

Fornell, C., and Larcker, D. F. 1981. Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 18(3), 382-388.

Gefen, D. and Straub, D. W. 2000. The relative importance of perceived ease of use in IS adoption: A study of e-commerce adoption. *Journal of the association for Information Systems*, 1(1), 8.

Guesalaga, R. 2016. The use of social media in sales: Individual and organizational antecedents, and the role of customer engagement in social media. *Industrial Marketing Management*, 54, 71-79.

Hair, J.F., Tatham, R.L., Anderson, R.E. and Black, W., 1998. *Multivariate Data Analysis*. New Jersey : Prentice Hall

Hair, J. F., Hult, G. T. M., Ringle, C., and Sarstedt, M., 2013. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). London : SAGE Publications.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., and Sarstedt, M. 2016. A primer on partial least squares structural equation modeling (PLS-SEM). Sage Publications.

Håkansson, H., and Snehota, I. 1989. No business is an island: The network concept of business strategy. *Scandinavian Journal of Management*, 5 (3),187–200.

Harrison, L., Plotkin, C. L. and Stanley, J. 2017. Measuring B2B digital gap. McKinsey Quarterley, available at <u>https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/measuring-b2bs-digital-gap</u> accessed on 20 February 2018.

Hassan, S. and Li, F. 2008. Evaluating the usability and content usefulness of web sites: a benchmarking approach; in Becker, A. *Electronic Commerce: Concepts, Methodologies, Tools, and Applications*, Information Science Reference, Hershey New York.

Holden, H. and Rada, R. 2011. Understanding the Influence of Perceived Usability and Technology Self-Efficacy on Teachers'Technology Acceptance. *Journal of Research on Technology in Education*, 43(4), 343–367.

Hong, W., Thong, W.M. and Wong, K.Y.,2002. Determination of user acceptance of digital libraries: An empirical examination of individual difference and system characteristic. *Journal of Management Information System*, 18 (3), 97-124.

Humphreys, L., and Wilken, R. 2015. Social media, small businesses, and the control of information. *Information, Communication & Society*, 18(3), 295-309.

Hunter, G. K., and Perreault Jr, W. D. 2007. Making sales technology effective. *Journal of Marketing*, 71(1), 16-34.

Iankova, S., Davies, I., Archer-Brown, C., Marder, B. and Yau, A. 2018. A comparison of social media marketing between B2B, B2C and mixed business models . *Industrial Marketing Management*, in press.

Itani, O. S., Agnihotri, R., and Dingus, R. 2017. Social media use in B2B sales and its impact on competitive intelligence collection and adaptive selling: Examining the role of learning orientation as an enabler. *Industrial Marketing Management*, In Press.

Järvinen, J., Tollinen, A., Karjaluoto, H., and Jayawardhena, C. (2012). Digital and Social media marketing usage in B2B industrial section. *Marketing Management* Journal, 22(2).

Jussila, J. J., Kärkkäinen, H., and Aramo-Immonen, H. 2014. Social media utilization in business-to-business relationships of technology industry firms. *Computers in Human Behavior*, 30(Jan), 606-613.

Jussila, J. J., Kärkkäinen, H., and Leino, M. 2012. Social media's opportunities in businessto-business customer interaction in innovation process. *International Journal of Technology Marketing* 22, 7(2), 191-208.

Kandampully, J. 2003. B2B relationships and networks in the Internet age. *Management Decision*; 2003; 41(5/6), pp. 443-451.

Kang, Y. S., and Lee, H. 2010. Understanding the role of an IT artifact in online service continuance: An extended perspective of user satisfaction. *Computers in Human Behavior*, 26(3), 353-364.

Kaplan, A. M., and Haenlein, M. 2010. Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59-68.

Keinänen, H., and Kuivalainen, O. 2015. Antecedents of social media B2B use in industrial marketing context: customers' view. *Journal of Business & Industrial Marketing*, 30(6), 711-722.

Kraemer, K. L., Gibbs, J., and Dedrick, J. 2005. Impacts of Globalization on E-Commerce Use and Firm Performance: A Cross-Country Investigation. *The Information Society*, 21: 323–340.

Lacka, E., and Chong, A. 2016. Usability perspective on social media sites' adoption in the B2B context. *Industrial Marketing Management*, 54(April), 80-91.

Lamberton, C., and Stephen, A. T. 2016. A thematic exploration of digital, social media, and mobile marketing: Research evolution from 2000 to 2015 and an agenda for future inquiry. *Journal of Marketing*, 80(6), 146–172.

Lashgari, M., Sutton-Brady, C., Solberg Søilen, K., Ulfvengren, P. 2018. "Adoption strategies of social media in B2B firms: a multiple case study approach", *Journal of Business & Industrial Marketing*, Vol. 33 Issue: 5, pp.730-743.

Lee, Y., Kozar, K. A., and Larsen, K. R. 200). The technology acceptance model: Past, present, and future. *Communications of the Association for information systems*, 12(1), 50.

Levin, M.A, Hansen, J.M., and. Laverie, D.A. 2012. Toward understanding new sales employees' participation in marketing-related Technology: motivation, voluntariness, and past performance. *Journal of Personal Selling & Sales Management*, 32 (3), 379–393.

Lichtenthal, J. D.avid and Eliaz, S. 2003, "Internet Integration in Business Marketing Tactics," Industrial Marketing Management, 32 (1), 2 -13

Lim, W. M. 2017. Online group buying: Some insights from the business-to-business perspective. *Industrial Marketing Management*, 65 (no), 182-193. Lin, C. and Bhattacherjee, A., 2009. Why people use social network sites: An empirical study integrating network externalities and motivational theory. *Computers in Human Behavior*, 27 (3), 1152-1161

Lin, K. Y., and Lu, H. P. 2011. Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Computers in human behavior*, 27(3), 1152-1161.

Lindgaard, G., and Dudek, C. 2007. What is this evasive beast we call user satisfaction? *Interacting with computers*, 15(3), 429-452.

Lu, M.T. and Yeung, W.L. 1998. A framework for effective commercial Web application development. *Internet Research: Electronic Networking Applications and Policy*, 8 (2), pp. 166-173

Luo, X., Zhang, J., and Duan, W. 2013. Social media and firm equity value. *Information Systems Research*, 24(1), 146-163.

Meire, M., Ballings, M., den Poel, V. D. 2017. The added value of social media data in B2B customer acquisition systems: A real-life experiment. *Decision Support Systems*, 104, 26–37

Michaelidou, M.,Siamgka, N.and Christodoulides, G., 2011. Usage, barriers and measurement of social media marketing: An exploratory investigation of small and medium B2B brands. *Industrial Marketing Management*, 40 (7),1153-1159.

Minsky, L. and Quesenberry, K. A. 2015. *How B2B Marketers Can Get Started with Social Media*, Harvard Business School Publishing Corporation.

Moore, G. C., and Benbasat, I. 1991. Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, 2(3), 192-222.

Moore, J. N., Hopkins, C. D., and Raymond, M. A. 2013. Utilization of relationship-oriented social media in the selling process: a comparison of consumer (B2C) and industrial (B2B) salespeople. *Journal of Internet Commerce*, 12(1), 48-75.

Nielsen, J. 1994. Usability engineering. Elsevier, UK.

Nordlund, H., Lempiälä, T., and Holopainen, M. 2011. Openness of innovating: the new roles of customers and users in business-to-business context. *International Journal of Entrepreneurship and Innovation Management*, 14(4), 282-297.

Nunnaly, j. C. and Bernstein, I.H. 1994. *Psychometric theory*, 3<sup>rd</sup> ed. New York: McGraw Hill.

Obal, M., and Lancioni, R. A. 2013. Maximizing buyer–supplier relationships in the Digital Era: Concept and research agenda. *Industrial Marketing Management*, 42(6), 851-854.

Pascucci, F., Chiara, A., Cardinali, S. 2018. "Exploring antecedents of social media usage in B2B: a systematic review", *Management Research Review*, Vol. 41 Issue: 6, pp.629-656

Patrutiubaltes,L., 2016. The impact of digitization on business communication. *Practical Application Of Science*, 6 (2), 316-325, available at <u>http://seaopenresearch.eu/Journals/articles/SPAS\_11\_21.pdf</u> accessed on 25 August 2018.

Pitt, C. S., Plangger, K. A., Botha, E., Kietzmann, J. and Pitt, L. 2018. How employees engage with B2B brands on social media: Word choice and verbal tone. *Industrial Marketing Management*, xxx (xxxx) xxx–xxx. In Press.

Pookulangara, S., and Koesler, K. 2011. Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions. *Journal of Retailing and Consumer Services*, 18(4), 348-354.

Porter, M. E., 1986. *Competition in global industries*. ed. Boston: Harvard Business School Press.

Rodriguez, M., Peterson, R. M., and Krishnan, V. 2012. Social media's influence on business-to-business sales performance. *Journal of Personal Selling & Sales Management*, 32(3), 365-378.

Rollins, M., Nickell, D., and Wei, J. 2014. Understanding salespeople's learning experiences through blogging: A social learning approach. *Industrial Marketing Management*, 43(6), 1063-1069.

Schultz, R. J., Schwepker Jr, C. H., and Good, D. J. 2012. Social media usage: an investigation of B2B salespeople. *American Journal of Business*, 27(2), 174-194.

Serenko, A. 2008. A model of user adoption of interface agents for email notification. *Interacting with Computers*, 20(4-5), 461-472.

Shackel, B. 1991. Usability-context, framework, definition, design and evaluation. *Human factors for informatics usability*, 21-37.

Swani, K. and Brown, B., 2011. The effectiveness of social media messages in organizational buying contexts. *American Marketing Association*, 22, 519.

Abdel Monim Shaltoni, 2017 "From websites to social media: exploring the adoption of internet marketing in emerging industrial markets", *Journal of Business & Industrial Marketing*, 32 (7), 1009-1019,

Siamagka, N. T., Christodoulides, G., Michaelidou, N., and Valvi, A. 2015. Determinants of social media adoption by B2B organizations. *Industrial Marketing Management*, 51, 89-99.

Statista 2017. Social media: Meda use in the Middle East. Available at <u>http://www.mideastmedia.org/survey/2017/chapter/social-media/</u>, accessed on 13/09/2018.

Thüring M. and Sascha Mahlke S. 2007. Usability, aesthetics and emotions in human-technology interaction, *International Journal of Psychology*, 42 (4), 253-264

Taylor, S. and Todd P. 1995. Assessing IT Usage: The Role of Prior Experience, *MIS Quarterly*, 19 (4), 561-570.

Tong, X. 2010. A cross-national investigation of an extended technology acceptance model in the online shopping context. *International Journal of Retail & Distribution Management*, 38(10), 742-759.

Urbach N.and Ahlemann F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application*, 11 (2), 5-40.

Vallerand, R. J., Fortier, M. S., & Guay, F. 1997. Self-determination and persistence in a reallife setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology*, 72(5), 1161-1176. Velderman, C., Praet, V. and Mechant, P.,2017. Social Media Adoption in Business-to-Business: IT and Industrial Companies Compared. *International Journal of Business Communication*, 54(3) 283–305

Venkatesh, V., and Davis, F. D. 2000. A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), 186-204.

Wixom and Todd 2005. A Theoretical Integration of User Satisfaction and Technology Acceptance. *Infonnation Systems Research*, 16,(1), 85-102.

Xiao, T., 2010. A cross-national investigation of an extended technology acceptance model in the online shopping context. *International Journal of Retail & Distribution Management*, 38(10),742-759.

Yoon, C. 2009. The effects of national culture values on consumer acceptance of ecommerce: Online shoppers in China. *Information & Management*, 46(5), 294-301.

Zimmermann, T. 2018. Nothing is more steady than change, in *Smart grid analytics for sustainability and Urbanization*, Zbigniew H. G., IGI Global, Disseminator or knowledge.

Figure 1: The research framework



# Table 1: Study constructs and scale items, descriptive statistics, factor loadings and reliabilities

Constructs Measurement items	Fac. Ioad.	Mean	Std Dev	AVE
Perceived Usefulness @ 0.87	Davis (1989); Davis et al. (1989); Lacka and Chong (2016); Venkatesh and Davis (2000)			
Using social media sites enhances my productivity while doing my job	0.7698	5.1515	1.35973	
Social media sites are useful for conducting and meeting business objectives	0.8284	5.2121	1.27254	
Using social media sites enhances my effectiveness in Marketing business products and/or services	0.7762	5.1091	1.29265	
Using social media sites improves my performance in conducting B-to-B goals and objectives	0.874	5.4121	1.13690	
Social media sites enables me to conduct B-to-B goals faster	0.8068	5.1455	1.26998	
Perceived Utility @ 0.8441	Kraut et a	l. (1998); Lac	ka and Chong (	2016); Nielsen (1993)
Social media sites provides the right kind of functionalities to help conducting B-to-B goals and objectives	0.8101	5.1394	1.32009	
B2B goals and objectives can be met while using social media sites	0.8562	5.1758	1.24426	
Social media sites features support B-to-B goals and objectives	0.8604	5.1697	1.35081	

By Using social media sites I can minimalize cost while conducting B-to-B goals and		5.4788	1.29062
objectives	0.7734		
Results Demonstrability @ 0.8541	Moore and	d Benbasat (1	991); Siamagka et al. (2015)
I have no difficulty telling others about the results of using social media for our		5.2485	1.39427
business.	0.891		
I believe I could communicate to others the consequences of using social media for		5.3030	1.27559
our business.	0.8861		
The results of using social media are apparent to me	0.8623	5.2788	1.30938
Subjective Norms @ 0.8249			; Venkatesh and Davis (2000)
People who influence my behavior think that I should use Social Media in my job.	0.9281	5.2242	1.32219
People who are important to me think that I should use Social Media in my job.	0.9167	5.2303	1.43401
Image @ 0.8227			991); Venkatesh and Davis (2000)
Our company would have a better image by using social media sites.	0.9008	5.7152	1.31967
Companies who use social media are better regarded by customers.	0.9159	5.6788	1.32512
People in my organization who use social media have a high profile	0.7582	5.1455	1.30316
Perceived Usability @ 0.9135			al. (1989); Kraut et al. (1998); Lacka and
			(1993); Venkatesh and Davis (2000)
It is easy to become skillful in using social media sites for B-to-B goals and objectives	0.884	4.9939	1.66930
Social media sites are easy to use for B-to-B goals and objectives	0.8845	5.2303	1.43826
I find it easy to get social media sites to do what I want them to do while conducting		5.7273	1.29898
B-to-B goals and objectives	0.8598		
My interaction with social media sites is clear and understandable while conducting		5.2485	1.47502
B2B goals and objectives	0.8371		
Learning to operate social media sites for Bto-B goals and objectives is easy	0.8438	5.3697	1.44503
Learnability @ 0.8747	Lacka and		δ); Nielsen (1993)
Learning how to use social media sites to accomplish B-to-B goals and objectives is		5.0606	1.27211
simple	0.8477		
Understanding how to use social media sites to accomplish B-to-B goals and		5.0545	1.24575
objectives is simple	0.8987		
It is easy to execute B-to-B goals and objectives using social media sites	0.8621	5.1333	1.26169
Using social media sites I can complete B-to-B goals within a required timeframe	0.8004	5.0364	1.24886
Error @ 0.7204		¥ (	6); Nielsen (1993)
I make few errors while using social media sites for B-to-B goals and objectives	0.7957	5.0061	1.35924
If I make errors while using social media sites for B-to-B goals and objectives I can easily recover from them.	0.8685	4.7455	1.46360
Disastrous errors do not occur while using social media sites for B-to-B goals	0.7345	4.6364	1.57763
Memorability @ 0.8582	Lacka and	Chong (2016	6); Nielsen (1993)

It is easy to remember how to use social media sites for B-to-B goals and objectives	0.8841	5.2424	1.21551
I am able to return to social media functions and use them for B-to-B goals and		5.2364	1.22917
objectives after some period of not using it	0.8931		
I am able to Repeat using social media for similar future marketing tasks.	0.8689	5.2727	1.27530
Efficiency @ 0.8206	Lacka and	d Chong (2016	6); Nielsen (1993)
Social media can achieve B-to-B goals and objectives efficiently	0.9211	5.1879	1.25712
Social media sites achieve high level of productivity while conducting B-to-B goals		5.1879	1.25226
and objectives	0.9205		
Satisfaction @ 0.8599	Lacka and	d Chong (2016	6); Nielsen (1993)
It is pleasant to use social media sites for B-to-B goals and objectives	0.8548	5.2485	1.16559
I am satisfied when using social media sites for B-to-B goals and objectives	0.9208	5.2061	1.30429
I am entertained when using social media sites for B-to-B goals and objectives		5.2667	1.30259
	0.8747		
Intention to Use @ 0.8755	Davis (1989); Davis et al. (1989); Lacka and Chong (2016);		
			006); Yoon (2009)
Given the chance, I intend to use social media sites to achieve organizational goals	0.8832	5.2182	1.51042
I will frequently use social media sites to achieve organizational goals	0.9269	5.2667	1.39744

## Table 2: Influence paths and hypotheses results

	Hypothesis	Original Sample (O)	T Statistics ( O/STERR )	Hypotheses result
Results Demonstrability →	H1a			Supported
Perceived usefulness		0.1861	3.0062	
Subjective norm $\rightarrow$ Perceived	H1b			Supported
usefulness		0.1656	2.5032	
Image $\rightarrow$ Perceived usefulness	H1c	0.1247	2.0313	Supported
	H2a			Supported
Learnability $\rightarrow$ Perceived usability		0.3902	5.4593	
	H2b			Supported
Error $\rightarrow$ Perceived usability		0.1289	2.2062	
Memorability → Perceived usability	H2c	0.1828	2.589	Supported
Efficiency→ Perceived usability	H2d	0.0137	0.1881	Not Supported
Satisfaction $\rightarrow$ Perceived usability	H2e	0.1575	1.9868	Supported
Perceived utility→Perceived	H3a			Supported
usefulness		0.2588	5.1062	
Perceived utility $\rightarrow$ Intention to Use	H3b	0.383	5.1062	Supported
Perceived usability $\rightarrow$ Perceived	H4a			Supported
usefulness		0.2108	2.557	
Perceived usability $\rightarrow$ Intention to	H4b			Not Supported
Use		-0.0186	0.2704	
Perceived usefulness $\rightarrow$ Intention	H5			Supported
to Use		0.429	5.8116	

 Table 3 Validity and Reliability Estimates of the Constructs

A	/6	Composite	R Square	Cronbach's
	L	Reliability	n Square	Alpha

Usability	0.7432	0.9353	0.5623	0.9135
Efficiency	0.8479	0.9177		0.8206
Error	0.6423	0.8428		0.7204
Image	0.7417	0.8954		0.8227
Intention to Use	0.8009	0.9234	0.5331	0.8755
Learnability	0.7276	0.9143		0.8747
Memorability	0.7781	0.9132		0.8582
<b>Results Demo</b>	0.7742	0.9114		0.8541
Satisfaction	0.7813	0.9146		0.8599
Subjective norm	0.8508	0.9194		0.8249
Usefulness	0.6592	0.9061	0.5884	0.87
Utility	0.682	0.8954		0.8441