Abstract
Purpose – The advent of social media brought a new perspective for guerrilla marketing since it allows ads to reach more people through the internet. The purpose of this paper is to investigate the influence of guerrilla marketing in social media on brand image.
Design/methodology/approach – A conceptual model was developed based on the information acceptance model (IACM). The research model was validated through structural equation modelling based on the surveys of 385 university students.
Findings – The results support the proposed model and confirm that guerrilla marketing in social media has a positive effect on both functional and symbolic brand image.
Research limitations/implications – This study was conducted with university students. This sample was deemed appropriate since the study had to be conducted with people who use social media. However, although the age group of university students constitutes the majority of social media users, they may not fully represent the whole population. Also, this study showed four guerrilla marketing examples to participants before they commenced filling in the questionnaire. Although the authors selected the most generic guerrilla advertisements during the pilot tests and eliminated the ones which were difficult to understand, this can still be considered as limitations of the study.
Practical implications – This study has both theoretical and managerial implications. First, most of the guerrilla marketing studies focus on consumers and neglect possible impacts on brands. In order to fulfil this gap in the literature, this study investigates the influence of guerrilla marketing in brand image. Besides, this study contributes to IACM by expanding its scope through testing its determinants on “brand image”. It proves that IACM is valid for use in different contexts. On the managerial side, this study provides marketers with a frame of reference to understand the information adoption process of guerrilla marketing on social media.
Originality/value – Current studies regarding the influence of guerrilla marketing mostly focus on consumers, where the possible impacts on brands have been relatively neglected. This study attempts to fill this gap by focussing on the brand image.
Keywords Social media, Guerrilla marketing, Functional brand image, Symbolic brand image, Information acceptance model (IACM)
Paper type Research paper

Introduction
The term “guerrilla marketing” was first coined by Jay Conrad Levinson in the 1980s (Dinh and Mai, 2016; Levinson, 1984; Tam and Khuong, 2015). Levinson et al. (2010) describe the guerrilla marketing concept as follows: “achieving conventional goals, such as profits...
and joy, with unconventional methods, such as investing energy instead of money”. This concept was first adopted for small businesses as a means of helping them to become noticed using a small budget (Langer, 2006). It later also became popular among global brands with large companies such as Nike, Audi and IKEA having implemented this concept during various stages of their marketing strategies (Tam and Khuong, 2015). Guerrilla marketing involves untraditional advertising activities such as eye-catching street graphics, surprising product placements and memorable events; and it is therefore considered effective to grab consumers’ attention (Baltes and Leibing, 2008; Wanner, 2011).

On the other hand, although guerrilla marketing has been found influential on consumers’ purchase intentions, and considered advantageous for marketers (Tam and Khuong, 2015), it also has some disadvantages. While other traditional advertising channels allow marketers to reach a huge number of consumers, guerrilla marketing activities were only able to reach people who were passing close to the advertising activity. For example, when a company designed an unconventional bus stop to promote itself, it was only seen by people who used or passed close to that bus stop. The number of people who could see the marketing activity was thus limited. However, the advent of the internet has changed this situation. Examples of effective guerrilla marketing can spread rapidly among internet users; therefore, more and more consumers can see the ad even if they do not pass close to the guerrilla marketing activity. Particularly, on social media, there are many accounts such as “Marketing Birds” (e.g. @marketing_birds on Twitter) which share excellent guerrilla marketing ideas executed by a variety of companies, including both small businesses and big global brands. The content shared by Marketing Birds and other accounts are liked and shared by many users; the ads are spread through social media. Social media websites thus increase the visibility of guerrilla marketing. This study therefore has focussed on the influence of guerrilla marketing in social media.

However, although the guerrilla marketing has potential to reach large audiences via social media, and it has been found influential on consumers’ purchase intentions; its possible impacts on brand image have not been known. Prior studies have mostly focussed on consumers’ side; the effects of guerrilla marketing on consumer behaviour (Fong and Yazdanifard, 2014), buying behaviour (Iqbal and Lodhi, 2015) and purchase intention (Tam and Khuong, 2015) have been examined. Yet, the possible impacts on brands have been relatively neglected. Uncertainty on this issue is an important obstacle for marketers to take advantage of guerrilla marketing. We therefore aim to provide better understanding of guerrilla marketing through examining its impacts on brand image. For this purpose, we developed a research model based on information acceptance model (IACM) (Erkan and Evans, 2016). IACM was deemed appropriate for this study as it explains how consumers adopt the information shared on computer-mediated communication platforms. The results provide theoretical insights regarding guerrilla marketing on social media. On the managerial side, findings could help marketers as they reveal the determinants of guerrilla marketing which influence brand image.

Literature review

Guerrilla marketing

With the constant exposure of advertisements on traditional channels such as billboards, newspapers and even social media, consumers’ attitudes towards them has become questionable (Marsden, 2006; Shenk, 1998). This leads marketers to find alternative, creative and innovative ways to reach out to prospective customers, engage with them and communicate their messages.

There is an increasing dissatisfaction towards marketing communication as consumers often seek to avoid it (e.g. skipping adverts on YouTube), and therefore marketers need to expand these various techniques in order to reach more people (Johansson, 2004).
Brands apply various strategies to attract consumer attention, such as publicity stunts and product placement (Martin and Smith, 2008). At this point, guerrilla marketing emerges as a perfect opportunity to take a proactive approach in breaking clusters and conveying the message.

According to Hatch (2005, p. 53), guerrilla marketing is defined as “any activity that uses a means other than traditional media to communicate a brand’s name and position to prospects. Also called extreme marketing, grassroots marketing, or feet-on-the-street marketing, a guerrilla campaign has no pre-set rules or boundaries”. The creativity involved in guerrilla marketing is acknowledged as it rides on engaging a range of channels, including elements of public relations, advertising and marketing to create an outrageous campaign which enables consumers to become aware of the brand (Simone, 2006; Zuo and Veil, 2006).

Guerrilla marketing can also be seen in the light of viral, ambush, buzz or stealth marketing as these involve advertising in an untraditional manner concept, aiming to reach a large number of people with a small budget (Ay et al., 2010; Hutter and Hoffmann, 2011). Guerrilla marketing strategies have been used by a significant number of brands in various situations across different countries. Nestle, Lipton, Ray-Ban and Ponds are among these brands; they use public objects (i.e. billboards, bus stops) to grab consumer attention. Attracting consumers’ attention while conveying the marketing message is often considered a successful guerrilla marketing campaign (Hatch, 2005).

The advent of the internet and social media has made guerrilla marketing examples more visible. Successful campaigns can go viral and even reach audiences of millions through the internet and social media. This means of communication, however, can also be risky for brands, particularly when the message of the campaign is misunderstood by consumers. If the campaign is not properly designed, or is directed at the wrong audience, it can be harmful for the brand’s image (Shang et al., 2006). This study therefore focuses on the possible influences of guerrilla marketing on brand image. Although previous researchers have conducted studies which explain guerrilla marketing definition, the possible impacts of guerrilla marketing on brand image have been relatively neglected.

**Brand image**

Brand image simply refers to consumers’ mental image of the brand (Dobni and Zinkhan, 1990), including meanings related to specific attributes of the products and services of brands (Cretu and Brodie, 2007; Padgett and Allen, 1997). One of the most popular definitions of brand image was made by Keller (1993, p. 3), who defines brand image as “perception about a brand as reflected by the brand associations held in consumer memory”, additionally, a further definition of brand image was given by Low and Lamb (2000, p. 352) as follows: “the reasoned or emotional perceptions consumers attach to specific brands”. Brand image can be divided into two constructs: functional image, symbolic image (Bhat and Reddy, 1998; Simms and Trott, 2006). Wu and Wang (2014) claim that “experiential brand image” could be another sub-construct of brand image, in this study, however, we preferred the stick with two main constructs (i.e. functional image and symbolic image) since they were confirmed by more studies in the literature. Functional image refers to what consumers think about the performance of products and services. Functional image is considered strong if consumers consider that the products and services of brands would solve their problems (Bhat and Reddy, 1998). Symbolic image, however, refers to how consumers feel with the products and services. Symbolic image is considered strong if the brand can satisfy consumers’ inner desires, such as social status and self-value (Bhat and Reddy, 1998).

Shamma and Hassan (2011) draw attention to the possibility of purchasing intention when the brand image is strong in the consumers mind; brand image therefore has been considered important by both marketers and researchers. Marketers use different advertising methods in order to enhance the image of their brands. According to
Meenaghan (1995), advertising plays a central role in developing brand image. Previous studies have also examined various advertising methods; celebrity endorsement (Chan et al., 2013), event sponsorships (Gwinner and Eaton, 1999), television brand placement (van Reijmersdal et al., 2007) have been found influential on brand image. In this study, however, we focussed on the influence of guerrilla marketing on brand image.

**Theoretical background of the research model**

This study builds a theoretical model to identify the determinants of guerrilla marketing in social media on brand image. To do so, the IACM (Erkan and Evans, 2016) was redeveloped through considering the needs of this research. IACM was found appropriate for this study since it explains how people adopt the information shared on computer-mediated communication platforms. The model, however, focusses on purchase intention, while this study investigates the effects of guerrilla marketing on brand image.

*Information acceptance model (IACM)*

IACM was first developed in order to explain the determinants of electronic word of mouth (eWOM) information on social media which affect consumers’ purchase intentions. The model postulates that information usefulness, which is the antecedent of information adoption and purchase intention, is decided by information quality, information credibility, needs of information and attitude towards information (Erkan and Evans, 2016). The authors built this model by considering two well-established theories: information adoption model (IAM) (Sussman and Siegal, 2003) and theory of reasoned action (TRA) (Fishbein and Ajzen, 1975). The IAM explains how the information on computer-mediated communication platforms are adopted by people, and focusses on the characteristics of information: quality, credibility and usefulness. However, the IAM was criticised since it only focusses on characteristic of information and neglects behaviours of consumers towards information (Erkan and Evans, 2016). This is the point where it was extended by considering TRA. TRA is a well-known model which explains consumers’ behavioural intentions (Fishbein and Ajzen, 1975). Recent studies used TRA in order to identify the relationship between online information and purchase intention (Prendergast et al., 2010; Cheung and Thadani, 2012; Reichelt et al., 2014). According to TRA, behavioural intention has two antecedents: attitude towards information and subjective norms (Fishbein and Ajzen, 1975). Attitude towards information refers to customer’s assessment about the information. The IACM mostly focusses on “attitude towards information” part of TRA (instead of subjective norms), because the model investigates the influence of online information in social media that influences consumers’ purchase intentions.

In the IACM model, the authors claim that they fulfil the gap of IAM by adding two more constructs: “needs of information” and “attitude towards information” (Erkan and Evans, 2016). The constructs “attitude towards information” and the “behavioural intention” are the parts where they applied TRA (Fishbein and Ajzen, 1975). As this study does not focus on behavioural intention, we did not borrow the final part of the IACM. Instead, we used functional and symbolic brand image as the aim of this research is to investigate the influence of guerrilla marketing in social media on brand image. However, the IACM is deemed appropriate since it provides a comprehensive approach to understand the influence of online information by considering both the characteristics of information and consumer behaviour towards information together. It is therefore preferred in this study.

*Research model and hypotheses development*

Figure 1 shows the research model of this study, explaining the determinants of guerrilla marketing on social media which influence brand image. This study claims that guerrilla marketing examples shared on social media are influential on brand image. To understand
this, the IACM has been developed; our model eventually examines the relationships between following variables: information quality, information credibility, needs of information, attitude towards information, information usefulness, information adoption, functional brand image and symbolic brand image.

### Information quality

Information quality refers to the persuasive power embedded in the message (Bhattacherjee and Sanford, 2006; Djafarova and Rushworth, 2017; Shu and Scott, 2014). Information which satisfies appreciation criteria of people is considered to be high quality information (Koivumaki et al., 2008; Salaün and Flores, 2001; Ul-Islam and Rahman, 2017). When the quality of information is both high and satisfying, consumers regard the information to be useful. Information quality therefore has been found to be an essential determinant of information usefulness by previous researchers (Saeed and Abdinnour-Helm, 2008; Zhu et al., 2015). Both IAM (Sussman and Siegal, 2003) and IACM (Erkan and Evans, 2016) confirmed that information quality has a strong relationship with information usefulness (Jin et al., 2009). However, we believe that information quality is not only important to information usefulness, but also to information adoption. People who perceive higher information quality will be more likely to adopt the information. This relationship has been indirectly proposed by previous models (Sussman and Siegal, 2003), whereas in this study we propose a direct relationship in our research model. We therefore hypothesised that:

**H1.** Information quality is positively related to information usefulness (a), and information adoption (b).

### Information credibility

Information credibility refers to a message receiver’s perception of the trustworthiness of that message (Grewal et al., 1994; Kim et al., 2016; Ma and Atkin, 2016). It has been found to be a further essential determinant of information usefulness in the IAM (Chung et al., 2015; Shu, 2014; Sussman and Siegal, 2003). People tend to consider the information useful when they perceive the information credible (Castillo et al., 2013; Jin et al., 2009). This relationship has also been validated by IACM (Erkan and Evans, 2016). Significant importance has also been given to the information credibility by other previous researchers; Awad and Ragowsky (2008) found it to be the main determinant in the decision-making process of consumers, while Wathen and Burkell (2002) consider information credibility to be the initial
factor in the individuals’ persuasion process. Information credibility has also been found influential on information adoption (McKnight and Kacmar, 2006) and purchase intention (Prendergast et al., 2010). In this study, we therefore believe that information credibility is not only important to information usefulness, but also information adoption. People who perceive higher information credibility will be more likely to adopt the information. We therefore hypothesised that:

\[ H2. \] Information credibility is positively related to information usefulness (a), and information adoption (b).

**Needs of information**

Needs of information have previously been studied using different research questions. It has been used as “advice seeking” (Hennig-Thurau et al., 2004; Wolny and Mueller, 2013) and “opinion seeking” (Chu and Kim, 2011; Wang et al., 2016). In IACM, Erkan and Evans (2016) proposed that people who need information on social media are more likely to find it useful; this relationship was also validated in their study. As this study investigates the influence of guerrilla marketing in social media, we also considered using “needs of information” appropriate for this research and it is therefore included to our research model. However, we believe that the impact of needs of information cannot be limited to information usefulness only; it has potential to have a direct influence on information adoption. The following hypothesis is thus proposed:

\[ H3. \] Needs of information is positively related to information usefulness (a) and information adoption (b).

**Attitude towards information**

Attitude towards information is another variable which we considered as one of the determinants of guerrilla marketing in social media which influences brand image. This construct is adapted from TRA (Fishbein and Ajzen, 1975). In addition to Fishbein and Ajzen’s theory, two further theories have also proposed a relationship between attitude and behavioural intention: technology acceptance model (Bagozzi et al., 1992) and theory of planned behaviour (Ajzen, 1991). Erkan and Evans (2016) thus adapted this variable to the IACM and proposed that attitudes of social media users towards the information can have a positive impact on information usefulness. Although this hypothesis was not supported in their study, another research shows that attitude towards eWOM information has positive influence on perceived eWOM usefulness (Erkan and Elwalda, 2018). In this study, we therefore believe that people who have positive attitudes towards information in guerrilla advertisements are more likely to find them useful. In addition, we propose that attitude towards information is not only important to information usefulness, but also information adoption. People who have positive attitudes towards information will be more likely to adopt the information. The following hypothesis is thus proposed:

\[ H4. \] Attitude towards information is positively related to information usefulness (a), and information adoption (b).

**Information usefulness**

Information usefulness refers to the perceptions of individuals’ that using information will improve their performance (Cheung et al., 2008; Davis, 1989; Ku, 2011). Both IAM (Sussman and Siegal, 2003) and IACM (Erkan and Evans, 2016) considered information usefulness as a main determinant of information adoption. Previous studies have also found information usefulness influential on purchase intention (Lee and Koo, 2015; Liu and Zhang, 2010;
Wu and Lin, 2017) and technology adoption (Yeh and Teng, 2012). People who perceive the information useful will be more likely to adopt the information; we therefore hypothesised H5. Moreover, in this study we proposed the information usefulness as a predictor of brand image. Brand image is defined as the consumer’s mental image of the brand (Cretu and Brodie, 2007; Dobni and Zinkhan, 1990). The brand image can be divided into two constructs: functional and symbolic (Bhat and Reddy, 1998; Simms and Trott, 2006). The products of brands can help consumers solve their problems; the functional brand image refers to what consumers think about brands in this regard (Bhat and Reddy, 1998). The symbolic image, however, refers to whether the brands can satisfy consumers’ inner desires such as social status and self-recognition (Bhat and Reddy, 1998). The advertisements and other brand activities can shape their image in consumers’ minds. We therefore hypothesised that:

H5. Information usefulness is positively related to information adoption.

H6. Information usefulness is positively related to functional brand image (a), and symbolic brand image (b).

Information adoption

Information adoption is defined as the process by which people intentionally engage in using information (Cheung et al., 2008). On social media, people are exposed to a significant amount of brand-related information through advertisements. However, not all information on social media has the same influence on users; the level of impact can vary (Erkan and Evans, 2016; Yang, 2012). Consumers individually assess the validity of information, and tend to adopt it if they find it meaningful (Zhang and Watts, 2008). Information adoption has been studied by previous researchers and found influential on purchase intention (Erkan and Evans, 2016). Yet, in this study, we proposed the information adoption to be a further predictor of brand image. Park et al. (1986) argued that brand image can be affected by the communication activities of companies; information shared through advertisements is therefore considered important for both the functional and symbolic brand image. We thus hypothesised that:

H7. Information adoption is positively related to functional brand image (a), and symbolic brand image (b).

Method

Sample

In order to test the hypotheses of this study, a survey was conducted. Before the data collection, we did pilot tests in order to select the most generic guerrilla advertisements. This helped us to eliminate those which were difficult to understand. Then we showed four selected guerrilla advertisements to participants before they commenced filling in the questionnaire. A total of 385 university students participated to our study. This sample was considered appropriate since the majority of the age group of university students are social media users. According to the latest statistics, 89 per cent of internet users aged between 18 and 29 use social media websites (PRC, 2014). As this study investigates the influence of guerrilla marketing in social media, we required a sample who use both the internet and social media. Eventually the descriptive statistics of this study shows that more than half of the participants (67.8 per cent) had been using the internet for six years or more, and 89.6 per cent of the participants stated that they used social media every day. Further sample demographics are presented in Table I.
Measures
This study uses a multi-item approach in the design of the survey. In order to enhance the reliability and validity of this study, eight constructs were measured: information quality, information credibility, needs of information, attitude towards information, information usefulness, information adoption, functional brand image and symbolic brand image. A five-point Likert scale (ranging from strongly disagree – 1 to strongly agree – 5) was used. Applicable items were adopted from previous literature and enhanced according to the context of this study.

The constructs “Information Quality” and “Attitude towards Information” were adopted from the study of Park et al. (2007) with two-items and three-items scales. Three-scale items for the “Information Credibility” construct were adopted from Prendergast et al. (2010). “Needs of Information” was measured by adapting three-items used by Erkan and Evans (2016). The “Information Usefulness” construct was measured by three-items adopted from Bailey and Pearson (1983). The “Information Adoption” construct with three-items was generated from the study of Cheung et al. (2009). Three-items and four-items scales for “Functional Brand Image” and “Symbolic Brand Image” were adopted from Wu and Wang (2014). Table II provides all the constructs and items for this study.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>208</td>
<td>54.0</td>
</tr>
<tr>
<td>Female</td>
<td>177</td>
<td>46.0</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–22</td>
<td>274</td>
<td>71.2</td>
</tr>
<tr>
<td>23–27</td>
<td>100</td>
<td>26.0</td>
</tr>
<tr>
<td>28–32</td>
<td>8</td>
<td>2.1</td>
</tr>
<tr>
<td>33–37</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate degree</td>
<td>44</td>
<td>11.4</td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>323</td>
<td>83.9</td>
</tr>
<tr>
<td>Master’s</td>
<td>10</td>
<td>2.6</td>
</tr>
<tr>
<td>PhD</td>
<td>8</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Favourite social media website</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook</td>
<td>52</td>
<td>13.5</td>
</tr>
<tr>
<td>Twitter</td>
<td>44</td>
<td>11.4</td>
</tr>
<tr>
<td>Instagram</td>
<td>197</td>
<td>51.2</td>
</tr>
<tr>
<td>Snapchat</td>
<td>21</td>
<td>5.5</td>
</tr>
<tr>
<td>YouTube</td>
<td>64</td>
<td>16.6</td>
</tr>
<tr>
<td>Others</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Social media usage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Everyday</td>
<td>345</td>
<td>89.6</td>
</tr>
<tr>
<td>4–5 days per week</td>
<td>24</td>
<td>6.2</td>
</tr>
<tr>
<td>Once or twice a week</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>Very rare</td>
<td>9</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Internet familiarity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–3 years</td>
<td>23</td>
<td>6.0</td>
</tr>
<tr>
<td>4–6 years</td>
<td>101</td>
<td>26.2</td>
</tr>
<tr>
<td>More than 6 years</td>
<td>261</td>
<td>67.8</td>
</tr>
</tbody>
</table>

**Note:** n = 385

Table I. Sample demographics
Results

Measurement model evaluation

A structural equation modelling approach fits better with the predictive models (Bentler and Chou, 1987) and is therefore preferred for this study. The research model was tested using AMOS software. Primarily, the reliability and validity of each scale was analysed. Convergent validity refers to how the measures are related to each other or if measures belong to the same scale (Hair et al., 2010). Simply, it represents the degree to which measures of the same scale are in agreement (Kerlinger, 1986). To assess the convergent validity of the measurements, Fornell and Larcker (1981) suggest measuring composite reliability (CR > 0.70) for each construct and the average variance extracted (AVE > 0.50) for each construct.

Table III shows that all variables are higher than the minimum acceptable level of CR between a range of 0.794–0.909. (Information quality = 0.905, information credibility = 0.815, needs of information = 0.868, attitude towards information = 0.894, information usefulness = 0.866, information adoption = 0.909, functional brand image = 0.794, symbolic brand image = 0.870). Besides, all the variables are higher than the minimum acceptable level of AVE between a range of 0.562–0.827. (Information quality = 0.827, information credibility = 0.596, needs of information = 0.687, attitude towards information = 0.737, information usefulness = 0.684, information adoption = 0.769, functional brand image = 0.562, symbolic brand image = 0.627). All variables achieve the recommended factor loading level which is 0.70. Factor loading of each variable is between the range of 0.70–0.96 (see Table III).

The discriminant validity was measured to ensure whether or not a measurement is a reflection of any others (Hair et al., 2010). It is shows the degree to which measurement
differs from another (Kerlinger, 1986). The square root of AVE of each variable should be greater than the other correlation coefficients for satisfied discriminant validity (Fornell and Larcker, 1981). Table IV demonstrates that the square root of AVE for each variable is greater than its shared variance within a construct, therefore discriminant validity is supported. As such, the results show that the convergent validity is achieved.

### Structural model evaluation

With reference to Table V, there are significant relationships between the variables of ten hypotheses, while three hypotheses were found to be insignificant. Information quality was not found to be influential on information usefulness and information adoption, respectively; $H1a$ ($\beta = 0.040$) and $H1b$ ($\beta = 0.023$) were not supported. Information credibility and needs of information were found to have significant positive influence on

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Factor loading</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information quality ($M = 4.14, SD = 0.76, \alpha = 0.90$)</td>
<td>IQ1</td>
<td>0.86</td>
<td>0.905</td>
<td>0.827</td>
</tr>
<tr>
<td></td>
<td>IQ2</td>
<td>0.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IC1</td>
<td>0.75</td>
<td>0.815</td>
<td>0.596</td>
</tr>
<tr>
<td></td>
<td>IC2</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IC3</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needs of information ($M = 3.48, SD = 0.99, \alpha = 0.84$)</td>
<td>NOI1</td>
<td>0.77</td>
<td>0.868</td>
<td>0.687</td>
</tr>
<tr>
<td></td>
<td>NOI2</td>
<td>0.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOI3</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude towards information ($M = 3.15, SD = 1.06, \alpha = 0.89$)</td>
<td>ATI1</td>
<td>0.86</td>
<td>0.894</td>
<td>0.737</td>
</tr>
<tr>
<td></td>
<td>ATI2</td>
<td>0.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATI3</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information usefulness ($M = 3.42, SD = 0.94, \alpha = 0.86$)</td>
<td>IU1</td>
<td>0.70</td>
<td>0.866</td>
<td>0.684</td>
</tr>
<tr>
<td></td>
<td>IU2</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IU3</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information adoption ($M = 3.60, SD = 0.93, \alpha = 0.90$)</td>
<td>IA1</td>
<td>0.91</td>
<td>0.909</td>
<td>0.769</td>
</tr>
<tr>
<td></td>
<td>IA2</td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IA3</td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional brand image ($M = 3.72, SD = 0.82, \alpha = 0.79$)</td>
<td>FBI1</td>
<td>0.77</td>
<td>0.794</td>
<td>0.562</td>
</tr>
<tr>
<td></td>
<td>FBI2</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FBI3</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symbolic brand image ($M = 3.69, SD = 0.88, \alpha = 0.87$)</td>
<td>SBI1</td>
<td>0.73</td>
<td>0.870</td>
<td>0.627</td>
</tr>
<tr>
<td></td>
<td>SBI2</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBI3</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBI4</td>
<td>0.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** CR, composite reliability; AVE, average variance extracted

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Factor loading</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information quality (IQ)</td>
<td></td>
<td>0.910</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information credibility (IC)</td>
<td></td>
<td>0.559</td>
<td>0.772</td>
<td></td>
</tr>
<tr>
<td>Needs of information (NOI)</td>
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<td>0.121</td>
<td>0.366</td>
<td>0.829</td>
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<tr>
<td>Attitude towards information (ATI)</td>
<td></td>
<td>0.049</td>
<td>0.267</td>
<td>0.798</td>
</tr>
<tr>
<td>Information usefulness (IU)</td>
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<td>0.271</td>
<td>0.473</td>
<td>0.492</td>
</tr>
<tr>
<td>Information adoption (IA)</td>
<td></td>
<td>0.236</td>
<td>0.470</td>
<td>0.627</td>
</tr>
<tr>
<td>Functional brand image (FBI)</td>
<td></td>
<td>0.218</td>
<td>0.519</td>
<td>0.455</td>
</tr>
<tr>
<td>Symbolic brand image (SBI)</td>
<td></td>
<td>0.319</td>
<td>0.577</td>
<td>0.301</td>
</tr>
</tbody>
</table>

**Table IV:** Correlation matrix of key variables

**Note:** Italicised elements are the square root of AVE for each variable
information usefulness; \( H2a (\beta = 0.341, p < 0.05) \) and \( H3a (\beta = 0.292, p < 0.05) \) were supported. However, no significant relationship was found between attitude towards information and information usefulness \( (\beta = 0.144, p > 0.05) \), \( H4a \) was therefore not supported. Furthermore, consistent with \( H2b, H3b, H4b \) and \( H5 \), information credibility, needs of information, attitude toward information and information usefulness were found to be influential on information adoption, respectively; \( H2b (\beta = 0.218, p < 0.05) \), \( H3b (\beta = 0.272, p < 0.05) \), \( H4b (\beta = 0.216, p < 0.05) \) and \( H5 (\beta = 0.184, p < 0.05) \) were supported. Information usefulness and information adoption have a positive influence on functional brand image. \( H6a (\beta = 0.349, p < 0.05) \) and \( H7a (\beta = 0.320, p < 0.05) \) were therefore supported. Finally, consistent with \( H6b \) and \( H7b \), information usefulness and information adoption have a positive influence on symbolic brand image. \( H6b (\beta = 0.216, p < 0.05) \) and \( H7b (\beta = 0.332, p < 0.05) \) were supported.

In addition, goodness-of-fit indices demonstrate that the model fits well with the data; \( \chi^2/df = 1.914; p < 0.05 \); \( GFI = 0.915; AGFI = 0.889; CFI = 0.963; RMSEA = 0.049, PCLOSE = 0.605 \). Table V presents both the goodness-of-fit indices of the structural model and the results for hypotheses testing.

### Discussion and conclusion

This study investigates the influence of guerrilla marketing in social media on brand image. For this purpose, a conceptual model was developed based on the IACM (Erkan and Evans, 2016). Results from the structural equation model indicate that the determinants of the influence of guerrilla marketing in social media are influential on both functional and symbolic brand image. The model of this study tests eight constructs: information quality, information credibility, needs of information, attitude towards information, information usefulness, information adoption, functional brand image and symbolic brand image.

Ten hypotheses of the study were supported while three of them (i.e. \( H1a, H1b, H4a \)) were not supported. The first hypothesis of the study proposes the influence of information
quality on information usefulness (H1a) and information adoption (H1b). However, unlike the previous studies which confirms H1a (Saeed and Abdinnour-Helm, 2008; Sussman and Siegal, 2003), no significant relationships were found between the mentioned variables of the study. One possible explanation for this result may be the selected guerrilla advertisements used in this study. We showed four different guerrilla advertisements to participants before they commenced filling in the questionnaire. Although we selected the most generic guerrilla advertisements during the pilot tests and eliminated those which were difficult to understand, it might still be a possible reason for this result.

The second hypothesis of the study proposes the influence of information credibility on information usefulness (H2a) and information adoption (H2b). The results confirmed the described relationships, which were in line with the previous studies (Erkan and Evans, 2016; McKnight and Kacmar, 2006; Sussman and Siegal, 2003). Furthermore, the third hypothesis of the study proposes the effect of needs of information on information usefulness (H3a) and information adoption (H3b). The findings show positive relationships between the described variables of the study. People, who need information on social media, are more likely to find it useful and adoptable.

The fourth hypothesis of the study proposes the influence of attitude towards information on information usefulness (H4a) and information adoption (H4b). The findings did not support H4a; however, the relationship between attitude towards information and information adoption (H4b) was supported. This means people who have positive attitudes towards information provided by guerrilla advertising are more likely to adopt them (H4b). Moreover, H5 proposes the relationship between information usefulness and information adoption. People who perceive the information useful will be more likely to adopt the information. The results of this study confirmed the described relationship, which is also consistent with the previous studies (Cheung et al., 2008; Lee and Koo, 2015; Sussman and Siegal, 2003).

The sixth hypothesis of the study proposes the information usefulness as a predictor of functional brand image (H6a) and symbolic brand image (H6b). The findings confirmed these relationships; both parts of the hypothesis were supported. Information usefulness has a positive impact on functional and symbolic brand image. Finally, the last hypothesis of the study proposes the information adoption as a predictor of functional brand image (H7a) and symbolic brand image (H7b). The results confirmed these relationships; both H7a and H7b were supported.

Theoretical and managerial implications
Guerrilla marketing has been considered worth studying by researchers; previously, the effects of guerrilla marketing on consumer behaviour (Fong and Yazdanifard, 2014), buying behaviour (Iqbal and Lodhi, 2015) and purchase intention (Tam and Khuong, 2015) have been examined. These studies, however, mostly focused on the influences of guerrilla marketing on consumers, where the possible impacts on brands have been relatively disregarded. In order to fill this gap, our study investigated the influence of guerrilla marketing on brand image. The results show that guerrilla advertisements on social media have a positive influence on both functional and symbolic brand image. Communication activities of companies have long been considered influential on brand image (Park et al., 1986); yet our findings specifically prove the influence of guerrilla marketing activities, it is therefore important for the literature.

Second, within this study we contribute to IACM by expanding its scope. IACM was developed in order to explain how people accept the information on computer-mediated communication platforms (Erkan and Evans, 2016). The model presents important determinants while using “purchase intention” as a dependent variable. In this study we expand the scope of IACM through testing its determinants on “brand image”. This proves
that the IACM is not only valid for one context, the model is appropriate for using in different fields. Researchers who want to understand how people adopt/accept the information on computer-mediated communication platforms can apply this model in a variety of contexts. This finding is especially valuable for information systems researchers as they test different models to explore the influence of online information.

On the managerial side, this study provides marketers with a frame of reference to understand the information adoption process of guerrilla marketing on social media. Effective guerrilla marketing examples spread rapidly among internet users; they have potential to reach a lot of people in a short period of time. As this study shows the determinants of guerrilla marketing on social media which affect the functional and symbolic brand image, it provides valuable insights for marketers. The findings could help marketers to develop better guerrilla marketing strategies and enhance their brand image.

Limitations and future research
The results of this study should be evaluated with the following limitations. This study was conducted with university students. This sample was deemed appropriate since the study had to be conducted with people who use social media. However, although the age group of university students constitutes the majority of social media users, they may not fully represent the whole population. Future studies may test the influence of guerrilla marketing across a range of demographic groups. Also, as previously mentioned, this study showed four guerrilla marketing examples to participants before they commenced filling in the questionnaire. Although we selected the most generic guerrilla advertisements during the pilot tests and eliminated the ones which were difficult to understand, this can still be considered as a limitations of the study. Future researchers could use more examples, or could retest our study using different guerrilla advertisements.

References


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