The Influence Factors Towards Mobile Advertising Message Content on Consumer Purchase Intention

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Abstract
The purpose of this research is to study consumer attitude towards mobile advertising in Malaysia, and whether this attitude results in the intention to purchase the products or services advertised. This article reports on the results, based on factors such as entertainment, informativeness, irritation and credibility, which the research framework derives from Ducoffe (1996, Advertising value and advertising on the Web, Journal of Advertising Research, 36(5), 21–35) and Mackenzie (1989, An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context, Journal of Marketing, 53(4), 48–65). Attitudes towards behaviours, and subjective norms, based on the research by Ajzen (1991, The theory of planned behaviour, Organizational Behaviour & Human Decision Processes, 50(2), 179–211), are included in understanding consumer intention. A survey is conducted on 150 respondents, and the partial least squares analysis is used to determine the antecedents of mobile advertising that lead to consumer acceptance of mobile advertising, and the resulting intention to purchase. Results show that the advertising message content has the largest impact on attitude in advertising that is done via mobile phone. Attitudes towards mobile advertising are linked to the intention to purchase the product or services advertised. The main implication of the study shows that marketing managers should focus their marketing communication on mobile advertising, and increasing the attractiveness of this form of advertising, so as to reflect consumers’ intention to purchase. This study opens a new channel of communication for multiple unexamined matters concerning the mobile advertising industry. Based on the results, a number of recommendations are proposed and suggestions for future studies are made.

Keywords
Mobile advertising, entertainment, informativeness, irritation, credibility, purchase intention

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Introduction

The rise of mobile subscribers in Malaysia can be leveraged into advertising business. This is in view of the numbers of wireless and non-wireless subscribers that increase yearly. Given the latest quarter numbers of the Malaysia Mobile Operator Forecast by the IE Market Research (IEMR), the total number of subscribers in Malaysia increased from 27.1 million in 2008 to 41.9 million in 2013. In fact, the number of mobile subscribers has risen tremendously, and by mid-2015, there were 12.3 million users at Celcom, contributing to 31.3 per cent of the market shares, followed by Maxis and Digi, with 31 per cent and 30 per cent, respectively. Meanwhile, the household broadband continues to grow at over 70 per cent.1 According to the Malaysian Communications and Multimedia Commission (MCMC) Annual Report (MCMC, 2013), mobile phone subscriptions have shown an increase in trend over the last five years in Malaysia. This trend is not only impacting Malaysia but, rather, it is worldwide. Based on the Global Web Index (GWI), the most popular device used to search the Internet is via smartphone, laptop and tablet, which contribute to 80 per cent, 91 per cent and 47 per cent, respectively (Chaffey, 2016).

The high number of mobile phone subscribers definitely gives a greater impact and value to mobile advertising, where advertisers see the potential in mobile advertising. Hence, this research study aims to further understand the conceptual framework of the influencing factors of mobile advertising message content towards consumer purchase intention.

Review of Literature

Mobile Advertising

Mobile advertising, as defined by the Interactive Mobile Advertising Platform (Zoller, Housen, & Matthews, 2001), is the business of encouraging people to buy products and services using the wireless channel as a medium to deliver the advertising message. Mobile advertising not only engages consumers in both dialogue and transaction with regard to the products or services being advertised but also simultaneously enables the delivery of unique personalized and customized advertisements (Zhang, 2003). Similar to web advertising, mobile advertising includes various forms, such as e-mails, web links, banner ads, sponsorships and video ads. It also uses a form unique to the mobile phone, that is, SMS or MMS advertising. Mobile advertising messages use an alphanumeric format of up to 160 characters, which is stored in the user’s mobile handheld device and reviewed or forwarded to others when required. Advertising via SMS or MMS is diverse in its content; for example, in addition to sending advertisements, it also delivers special offers, coupons, tickets, teaser ads and product information requests (Barwise & Strong, 2002). SMS and MMS technology allows for the sending of an advertisement in a single message, with the added potential of sending that same message to multiple recipients. Mobile bandwidth and speed of data transmission to mobile handheld devices are interdependent; as the former increases, so does the latter. In addition, 3G and 4G wireless networks allow the latest mobile handheld devices to handle heavy multimedia content, web browsing and e-business messaging services. As a result of the development of mobile phone features, mobile content can now break with traditional advertising, allowing message content to include enhanced sound, video and multimedia effects, thereby equipping mobile advertising messages with more choice and creativity (Chen & Hsieh, 2012).

Consumer acceptance is what drives the success of mobile advertising. Up until recently, targeted consumers have not had the opportunity to identify or respond with their likes and dislikes with regard to the marketing activities received via their mobile handheld devices, which placed marketers at a
disadvantage (Robins, 2003), as it would be very difficult to ascertain whether their marketing activities were prompting positive or negative reactions from the consumer. According to Ducoffe (1996), the advertising value is what determines consumer attitude. As such, the attitudes of consumers towards advertising via mobile devices are considered to be influenced significantly by the value that consumers get from the mobile advertising messages. With the advancement of mobile handheld device technology, there is an increased acceptance in consumers of mobile advertising (Becker, 2005). However, in order to comprehensively understand the elements of mobile advertising that can affect consumer attitude towards mobile advertising, marketers will need to develop an increase in both aptitude and propensity to utilize mobile advertising (Laszlo, 2009; Pagani, 2004).

The literature includes various studies that propose models for the acceptance of mobile advertising. Roach (2009) proposes that the most significant factors that influence consumers to accept promotional messages via SMS on mobile handheld devices are client permission, the control that a service provider maintains over a transaction and the trust that the advertising message has in the advertised brand. Varnali and Toker (2010) have developed models to explain the acceptance of mobile marketing, mobile advertising and SMS advertising. These models describe that the acceptance of mobile advertising is connected with the theories relating to technology adoption (Pedersen & Ling, 2002). Previous research that studies mobile advertising acceptance refers to the theory of reasoned action (TRA; Fishbein & Ajzen, 1975); innovation diffusion theory (Rogers, 2003); theory of planned behaviour (Ajzen, 1991); technology acceptance model (TAM; Davis, Bagozzi, & Warshaw, 1989); TAM2—extension of TAM (Venkatesh & Davis, 2000) and unified theory of acceptance and use of technology (UTAUT; Venkatesh, Morris, Davis, & Davis, 2003) as the most frequently used theories.

This article focuses on Ducoffe’s (1996) and Mackenzie’s (1989) models of consumer attitude on mobile advertising. The conceptual model upon which this article is based uses the research by Hashim and Zolkepli (2014) as a basis upon which it explores mobile advertising message content and examines the purchase intention of consumers. Attitudes, behaviours and subjective norms (Ajzen, 1991) are added to the equation regarding consumer purchase intention. Recent research identifies and records Malaysian consumer attitude towards mobile advertising, and the results are shared using the partial least squares (PLS) analysis. The section below elaborates on the conceptual model, as well as the hypotheses presented hereafter.

**Mobile Advertising Message Content**

The continuous development of mobile technology, together with faster data network, gives marketers a greater awareness of the potential richness of both advertising content and targeting strategy (Dhar & Varshney, 2011). Marketers now have the opportunity to be more creative in their advertising message content. Rodgers and Thorson (2000) explain that the critical features of advertising media, as well as the content itself, can lead to a specific set of behaviours (i.e., purchase intention). Accordingly, based on the models of Ducoffe (1996) and Mackenzie (1989), the following characteristics of advertising message content pertaining to mobile advertising are discussed.

**Entertainment**

McQuail (1987) defines entertainment as the ability to fulfil the audience’s need for escapism, diversion, aesthetic enjoyment or emotional enjoyment. According to Ducoffe (1996), the entertainment portrayed
in advertising is significantly related to the advertising value of traditional advertising. Recently, mobile handheld devices with iOS/Android have become an important platform for entertainment. Entertainment services in the mobile entertainment industry use this particular medium for entertainment activities such as watching videos, listening to music and music television, playing games, gambling, watching television and downloading and installing applications. Consumer interaction with mobile-based media evokes a high degree of pleasure and interactive involvement, leading to concurrent subjective perceptions of the positive affect and mood of the consumer (Novak, Hoffman, & Yung, 2000). The feelings associated with advertisements, of pleasure and enjoyment, play a positive role in developing an overall positive attitude (Shavitt, Lowrey, & Haefner, 1998).

Entertainment is one of the vital factors in mobile marketing (Bartsch & Viehoff, 2010). However, it is of crucial importance that the message sent is concise and humorous, immediately capturing the attention of the consumer. The entertainment aspect of message content can add value to the consumer’s overall acceptance. Many consumers have a natural tendency for playfulness; thus, providing games and prizes via mobile handheld devices, especially those with Android/iOS, yield higher levels of participation. Therefore, it is hypothesized that ‘the entertainment element in the message content positively influences consumer attitude towards accepting mobile advertising’.

**Informativeness**

Informativeness can be defined as the ability of advertising to inform consumers of product alternatives so that purchases yielding the greatest possible satisfaction can be made (Ducotte, 1996). The quality of information on a company’s website has a direct influence on the customer’s perceptions of the company and the company’s products. In order for the company and product to appear resourceful and informative, information can be delivered to the consumer directly. Siau (2003) states that information using mobile devices must also show qualitative features, such as accuracy, timeliness and usefulness to the consumer. The consumer needs quick access to the information sought. In addition, there is a need for the information to be delivered automatically to the consumer. Consumers, in this new era of technology, require quick access to information to fulfils their needs, and instant entrance to first-hand information (Kaasinen, 2003). Thus, mobile advertising now has the potential for two-way communication between the company and the consumer.

Consumer demand dictates that the content of mobile services be tailored to consumer interests (Robins, 2003). This reinforces previous research done by Bauer, Barnes, Reichardt, and Neumann (2005), who mention that information supply is the primary reason behind consumers approving advertising. Information is thus considered as a valuable variable in mobile advertising; recipients usually react positively to the advertisement that transfers knowledge (Varshney, 2003). It can be concluded, therefore, that informative advertising messages are perceived positively by the consumer. Hence, it is hypothesized that the informativeness element in the message content positively influences consumer attitude towards accepting mobile advertising.

**Irritation**

Ducotte (1996) defines irritation, within the context of advertising, as offensive, insulting or overly manipulative content. Mobile advertising has the potential to present a vast array of information that can confuse, distract and overwhelm the recipient (Stewart & Pavlou, 2002). Thus, consumers feel confused
about the message that is conveyed and react negatively. When advertising employs an annoying, offensive, insulting or manipulative technique, consumers are more likely to perceive the advertising message as an unwanted and irritating influence (Ducoffe, 1996). Another potential annoyance is unwanted messages, commonly known as spam (Dickinger, 2005). Spam intrudes into the recipient’s privacy and stifles consumer acceptance. The irritation caused by an incomprehensible or unwanted mobile advertising message may reflect negatively on the perceived advertising value of mobile marketing (Dickinger, 2005). Therefore, this irritation is perceived to have a negative effect on consumer behavioural response. Thus, it is hypothesized that the irritation element in the message content negatively influences consumer attitude towards accepting mobile advertising.

**Credibility**

Mackenzie (1989) defines advertising credibility as the extent to which the consumer perceives claims made about the brand in the advertisement to be truthful and believable. While Brackett and Carrs (2001) claim that advertising credibility is significantly relevant to the advertising value of web advertising, Stewart and Pavlou (2002) define advertising credibility as the perception of consumers concerning the truthfulness and believability of advertising in general, which refers to the predictability and fulfilment of the implicit and explicit requirements of an agreement. Additionally, Smith and Quelch (1996) assert that the credibility of company’s advertisement is influenced by the credibility of that company, as well as the conveyor of the message.

The advertising medium also influences credibility. Charney and Greenberg (2002) find that an advertisement on the Internet holds less credibility than a printed message, unless the branding of the advertisements is strong. There is no empirical evidence on the overall credibility of messages transferred to mobile devices and their influencing factors. Considering the findings cited above, it is concluded that the credibility of a mobile advertising message has a positive influence on the attitudes of consumers towards advertising via mobile handheld devices, and on the perceived advertising value of the consumer. Thus, as hypothesized, ‘the credibility element in the message content positively influences consumer attitude towards accepting mobile advertising’.

**Consumer Attitude Towards Mobile Advertising**

Another important concept in research on marketing and information systems is attitude. Fishbein and Ajzen (1975) define attitude as a learned predisposition of human beings in which an individual is presumed to respond to an object (or an idea) or a number of things (or opinions). Kotler (2000), in addition, describes attitude as a person’s enduring favourable or unfavourable evaluation, emotional feeling and action tendency towards some objects or ideas. Thus, it is implied that under certain conditions, attitude correlates with behaviour. However, this relationship is not always mutual. Consumer attitude has various elements. Goldsmith and Bridges’ (2000) research includes three elements of attitude: beliefs, feelings and behavioural intentions towards some objects. These elements are highly interdependent and can influence how consumers react to an object. Each element, however, differs according to each individual.

Consumers are presumed to have been exposed to advertisements on a daily basis, both through online and offline media, and thus are expected to be familiar with advertisements. Thus, it is expected that consumers have a relatively stable and consistent attitude towards the advertising messages.
However, in the mobile advertising context, consumers have not had as much exposure to mobile advertising messages. This lead to the assumption that consumer attitude, in relation to mobile advertising, is less predictable and constant, and easily changeable. Accordingly, it is expected that consumer attitude towards mobile marketing is highly dependent upon the attitudes held towards advertising in general. According to a study by Madahi and Sukati (2016), Malaysian consumers change channels from the Internet to brick-and-mortar stores, and vice versa, when a channel is not favourable. The results from these studies confirm the role that attitudes play towards the intention behind consumer channel-switching, and with regard to both the channels. Thus, a positive attitude towards mobile advertising may or may not necessarily lead a person to purchase intention. Thus, the following hypotheses can be assumed: ‘consumer attitude towards accepting mobile advertising positively leads to consumer purchase intention, and consumer attitude positively influences subjective norms on accepting mobile advertising’.

**Subjective Norms**

The role of subjective norms as a determinant of intention in IT is well documented in situations where the actual behaviour entails tangible and beneficial consequences for the user (Taylor & Todd, 1995). Indeed, organizational studies have found subjective norms to be an important determinant of behavioural intention within the context of IT (Moore & Benbasat, 1993). Moreover, the relative importance of subjective norms on the intention to use technology has also been reported as being a function of the implementation phase of technology. According to Lee (2009), subjective norms are relative to normative beliefs about the expectations of other people. Thus, they can be depicted as an individual’s normative belief concerning a particular referent, weighted by their motivation to comply with that referent.

Subjective norms are a dimension highlighted in the Theory Planned Behaviour model (Ajzen, 1991). It is common that consumers refer to the people around them to obtain reinforcement regarding their behavioural attitudes (Pavlou & Stewart, 2000). Many studies explain this scenario and label it as ‘subjective norms’ (Ajzen, 1991; Ajzen & Fishbein, 1980; Bandura, 2001; Pavlou & Stewart, 2000; Radder et al., 2010; Venkatesh et al., 2003). The term refers to the individual’s belief about the expectations of the reference group, that consists of influential people and that exists around the individual (Ajzen, 1991). According to Ajzen (1991), subjective norms are an important dimension that guide future behavioural intention. Previous studies reveal that the intention to perform a particular action is based on the subjective norm’s perception about what a person should do (Pavlou & Stewart, 2000; Solomon, 2004). Thus, it is hypothesized that ‘subjective norms positively influence consumer purchase intentions in mobile advertising’.

**Objectives**

This study aims to understand the Malaysian consumer’s attitude towards mobile advertising, and to see the relationship between consumer attitude and the intention of purchase. By understanding consumer attitude towards mobile advertising, designers and marketers can better strategize their advertising designs. The main objectives of this study are to examine characteristics (entertainment, informativeness, irritation, credibility) of mobile advertisements as perceived by Malaysians, and to study the relationship between these characteristics and the consumer’s purchase intention.
Rationale Behind the Study

With the significantly increasing and high rate of numbers of mobile phone in Malaysia, it is easy to utilize mobile advertising activities among millions of mobile phone users at any time. According to the MCMC (2010), mobile phone subscriptions in Malaysia have shown an increasing trend over the past five years. This has led to the rise of new age media, where the medium of mobile advertising is estimated to be as important as traditional advertising. Ayyad (2011) supports this theory, that new-age media has become a potential advertising medium, through his study that sees a pattern of exposure in telecommunication devices, compared to traditional media—such as television and newspaper—among students in the United Arab Emirates.

The majority of research, with regard to consumer attitude towards mobile advertising, has been conducted in foreign countries where the findings, due to cultural differences and differences in the adoption of technology, may not directly apply to Malaysian consumers. The general consensus among academics and practitioners is that mobile advertising is an ideal medium for reaching the end consumer.

In conclusion, this research aims to understand the various degrees of acceptance of Malaysian consumers of mobile advertising, the attitudes towards it, and its contributions to purchase intention, through the process of the conative, followed by the affective and the cognitive. According to Ibrahim (2002), attitude is a combination of affective, behavioural and cognitive responses towards an object. The results of this study will, thus, be useful to gauge future mobile advertising industry in Malaysia, which is very important to the industry, advertisers and local scholars.

The results of this study are also important for local scholars as reference notes, as these scholars are responsible for equipping future advertisers, marketers and great leaders with knowledge. As advertising in Malaysia is important, and contributes to huge business dealings and money transactions, it is also important for agencies to have clear proofs and facts with which they can sell their ideas and decide upon which advertising medium is best for the advertisers.

Methodology

Data Collection and Sampling Method

The primary data in this research consist of data retrieved from a questionnaire where information about attitudes and behaviour was obtained. The target respondents of this study are mobile users, especially those who come across with advertisements on mobile websites and applications. According to Couper (2000), these respondents are quite familiar with Internet resources, such as e-mails and websites. A survey was conducted on a purposive sample to test the hypotheses. The instruments used in conducting the survey are of two types: self-administered face-to-face questionnaires and e-mail surveys. These two instruments are used based on the fact that they are suitable for the context of the research. The e-mail survey is used because this instrument makes it easy to reach respondents in any place. Additionally, the self-administered face-to-face questionnaires are used to reach inactive mobile users. The latter are individuals who use mobile devices to read news or collect information, and did not interact with the above survey.

The questionnaire was pretested on 30 individuals and was revised based on the feedback. Revision is important to ensure that all the questions are valid and reliable, and can be answered by all the respondents. It was distributed to the executive-level employees of Dutch Lady Malaysia in Klang Valley, Malaysia. Data collection for the actual survey was conducted within a week by the researcher.
Questions were distributed manually and e-mailed to the employees. Of the 384 surveys received, a total of 150 sets were usable surveys. It was observed that a number of forms were partially filled or entirely unusable due to defacement, thus bringing down the number of useable forms drastically.

As one of the main purposes of this study is to examine the influence of mobile advertising message content on consumer purchase intention, the attitudes of consumers towards such beliefs and purchasing intention are a core issue and a central part of the study. The research framework for this study relies on the models developed by Ducoffe (1996) and Mackenzie (1989) that are based on consumers’ attitudes towards Internet advertising. Figure 1 shows the research model depicting the perceptual antecedents of entertainment, informativeness, irritation and credibility, which are used to examine the consumer attitude towards accepting mobile advertising, and thus leading to consumer purchase intention.

According to the TRA model (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), two major factors determine behavioural intentions, namely the person’s attitude towards the behaviour and subjective norms. Therefore, intention is the immediate determinant of behaviour. A person’s intention is assumed to reflect his attitude towards the behaviour and his subjective norm. In order to provide a solid theoretical basis for examining consumer purchase intention in mobile advertising, the research framework proposes the extended TRA (Fishbein & Ajzen, 1975), with models developed by Ducoffe (1996) and Mackenzie (1989).

Results

Demographic Profile

Descriptive analysis was done for demographic characteristics, pattern of mobile phone usage and immediate response upon receiving mobile advertising. Gender, age, marital status, occupation and salary range data were collected from 150 respondents and tabulated in Table 1. Demographically, the number of respondents is split with the ratio of 38 per cent of male respondents to 62 per cent female respondents, ranging between 13 and 64 years old, and with the mean age of 31.8 years. The youngest respondents are 13 years old (the beginning of Generation Y in Malaysia) and oldest is 64 years old.
There is an almost equal split between respondents who are single and those who are married: 52 per cent of respondents are single, while 48 per cent respondents are married, as shown in Table 1. With regard to the occupation of the respondents, 38.7 per cent stated that they work in an administrative field, 28.7 per cent claimed they hold professional positions and 18.7 per cent indicated that they are in clerical or sales fields. The remaining respondents are students (10.7 per cent), housewives (1.3%), unemployed (1.3%) and other professions such as self-employed (1.3%), as shown in Table 1. Additionally, in Table 1, the salary range for respondents was stated as from a minimum of RM300 to a maximum of RM15,000.

Analysis

The SPSS statistical analysis package and the PLS with SmartPLS M3 2.0 were used for data analysis and hypothesis testing. The SPSS statistical analysis was used for data entry, data cleaning, missing value imputation analysis and descriptive analysis. To assess the model, this study has used the SmartPLS M3 2.0 software (Ringle, Wende, & Will, 2005) to estimate the parameters in the outer and inner models.

Measurement Reliability and Validity

Construct Validity

Construct validity testifies to how well the results obtained from the use of the measure fit the theories around which the test is designed (Sekaran & Bougie, 2010). The loadings for all the items exceeded the recommended value of 0.5 (Hair, Black, Babin, & Anderson, 2010). From Table 2, it shows that all the items measuring a particular construct loaded highly on that construct and loaded lower on the other constructs, thus confirming construct validity.
### Table 2. Loadings and Cross Loadings

| Subjective Norms | ATT1  | ATT2  | ATT3  | ATT4  | ATT5  | ATT6  | CRE1  | CRE2  | CRE3  | CRE4  | ENT1  | ENT2  | ENT3  | ENT4  | ENT5  | ENT6  | ENT7  | ENT8  | INF1  | INF2  | INF3  | INF4  | INF5  | INF6  | INF7  | INF8  | IRR1  | IRR2  | IRR3  | IRR4  | IRR5  | IRR6  | IRR7  | PUR1  | PUR2  | PUR3  | PUR4  | PUR5  | PUR6  | PUR7  | PUR8  | SN1  | SN2  | SN3  |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| **Attitude**    | **Subjective Norms** | 0.875 | 0.800 | 0.874 | 0.848 | 0.727 | 0.786 | 0.451 | 0.437 | 0.449 | 0.453 | 0.722 | 0.620 | 0.617 | 0.689 | 0.699 | 0.678 | 0.679 | 0.705 | 0.680 | 0.664 | 0.675 | 0.658 | 0.694 | 0.642 | 0.731 | -0.506 | -0.466 | -0.403 | -0.486 | -0.339 | -0.291 | 0.526 | 0.471 | 0.250 | 0.341 | 0.482 | 0.565 | 0.621 | 0.618 | 0.291 | 0.306 | 0.469 |
| **Subjective Norms** | 0.433 | 0.161 | 0.468 | 0.397 | 0.320 | 0.429 | 0.995 | 0.996 | 0.997 | 0.996 | 0.338 | 0.202 | 0.247 | 0.376 | 0.430 | 0.377 | 0.399 | 0.487 | 0.531 | 0.482 | 0.542 | 0.529 | 0.590 | 0.519 | 0.544 | -0.418 | -0.444 | -0.287 | -0.338 | -0.255 | -0.263 | 0.357 | 0.275 | -0.081 | 0.146 | 0.308 | 0.442 | 0.504 | 0.394 | 0.032 | 0.088 | 0.322 |
| **Entertainment** | 0.654 | 0.720 | 0.703 | 0.658 | 0.388 | 0.584 | 0.394 | 0.378 | 0.387 | 0.398 | 0.638 | 0.549 | 0.552 | 0.672 | 0.743 | 0.664 | 0.692 | 0.595 | 0.693 | 0.634 | 0.694 | 0.637 | 0.662 | 0.690 | 0.663 | -0.510 | -0.453 | -0.346 | -0.405 | -0.288 | -0.207 | 0.578 | 0.508 | 0.393 | 0.395 | 0.538 | 0.479 | 0.599 | 0.420 | 0.296 | 0.536 | 0.461 |
| **Informativeness** | 0.657 | 0.563 | 0.671 | 0.706 | 0.516 | 0.638 | 0.593 | 0.579 | 0.596 | 0.597 | 0.638 | 0.558 | 0.550 | 0.611 | 0.529 | 0.550 | 0.692 | 0.595 | 0.531 | 0.634 | 0.694 | 0.637 | 0.662 | 0.690 | 0.663 | -0.608 | -0.537 | -0.450 | -0.527 | -0.413 | -0.308 | 0.583 | 0.540 | 0.224 | 0.348 | 0.522 | 0.615 | 0.661 | 0.616 | 0.299 | 0.461 | 0.461 |
| **Intention** | 0.514 | 0.549 | 0.585 | 0.482 | 0.293 | 0.495 | 0.369 | 0.364 | 0.378 | 0.390 | 0.558 | 0.432 | 0.356 | 0.387 | 0.529 | 0.550 | 0.592 | 0.511 | 0.598 | 0.544 | 0.625 | 0.528 | 0.592 | 0.623 | 0.579 | -0.484 | -0.511 | -0.313 | -0.373 | -0.217 | -0.167 | 0.816 | 0.851 | 0.224 | 0.348 | 0.522 | 0.777 | 0.801 | 0.815 | 0.622 | 0.461 | 0.461 |
| **Irritation** | -0.483 | -0.336 | -0.476 | -0.468 | -0.293 | -0.386 | -0.407 | -0.406 | -0.403 | -0.394 | -0.432 | -0.423 | -0.356 | -0.387 | -0.462 | -0.402 | -0.426 | -0.397 | -0.500 | -0.465 | 0.544 | -0.399 | 0.512 | 0.478 | -0.530 | 0.907 | 0.855 | 0.854 | 0.899 | 0.796 | 0.761 | -0.436 | -0.312 | -0.076 | -0.225 | -0.331 | 0.777 | 0.801 | 0.815 | 0.622 | 0.461 | 0.461 |
| **Subjective Norms** | 0.278 | 0.417 | 0.393 | 0.330 | 0.124 | 0.349 | 0.179 | 0.165 | 0.172 | 0.175 | 0.436 | 0.422 | 0.503 | 0.479 | 0.407 | 0.429 | 0.466 | 0.310 | 0.372 | 0.337 | 0.399 | 0.280 | 0.343 | 0.425 | 0.354 | 0.345 | 0.391 | 0.228 | 0.263 | 0.236 | 0.085 | 0.613 | 0.588 | 0.574 | 0.548 | 0.633 | 0.462 | 0.512 | 0.574 | 0.908 | 0.931 |

**Source:** Prepared by the authors.

**Note:** Bold characters are the loadings value for the respective construct.
Convergent Validity

Convergent validity, which refers to the degree to which the multiple items that are used to measure the same concept are in agreement, was tested. As suggested by Hair et al. (2010), the factor loadings, composite reliability and average variance extracted (AVE) were the indicators used to assess convergent validity. The loadings for all the items exceeded the recommended value of 0.5. The composite reliability values (see Table 3), which depict the degree to which the construct indicators indicate the latent construct, ranged from 0.925 to 0.998, which exceeded the recommended value of 0.7 (Hair et al., 2010). The AVE, which reflects the overall amount of variance in the indicators accounted for by the latent construct, were in the range of 0.660 to 0.992 which exceeded the recommended value of 0.5 (Hair et al., 2010). Table 3 depicts the results of convergent validity.

Discriminant Validity

Discriminant validity is the extent to which the measures do not reflect other variables and it is indicated by low correlations between the measure of interest and the measures of other constructs (Cheung & Lee, 2010). According to Fornell and Larcker (1981), the square root of the AVE exceeded the inter-correlations of the construct with the other constructs in the model. Thus, the measurement model demonstrates adequate convergent validity and discriminant validity (see Table 4).

Structural Model

The structural model shows the causal relationships among constructs in the model (path coefficients and the $R^2$ value). Together, the $R^2$ and the path coefficients (beta and significance) indicate how well the data support the hypothesized model (Chin, 1998; Ramayah, Lee, & Boey, 2011; Sang, Lee, & Lee, 2010). Table 5 and Figure 2 show the results of the structural model from the PLS output. Entertainment is positively related to consumer attitude towards accepting mobile advertising ($R^2 = 0.683$, $\beta = 0.447$, $p < 0.01$), and also significantly related to informativeness ($R^2 = 0.683$, $\beta = 0.383$, $p < 0.01$). Consumer attitude towards accepting mobile advertising is positively related to subjective norms ($R^2 = 0.160$, $\beta = 0.400$, $p < 0.01$). Next, we tested the direct effects of consumer attitude towards accepting mobile advertising on consumer purchase intention in mobile advertising ($R^2 = 0.611$, $\beta = 0.393$, $p < 0.01$). Subjective norms positively relate to consumer purchase intention in mobile advertising ($R^2 = 0.611$, $\beta = 0.537$, $p < 0.01$). These findings support H1, H2, H5, H6 and H7 of this research.

Irritation ($\beta = -0.074$, $p > 0.05$) and credibility ($\beta = 0.017$, $p > 0.05$) are not significant predictors of consumer attitude towards accepting mobile advertising. Thus, H3 and H4 are not supported. All the variables explain 61.1 per cent of the variance in intention. A closer look shows that the most important predictors are attitude and subjective norms.

$Q^2$, which measures predictive relevance, was tested via the blindfolding procedure. This procedure omits a part of the data for a particular block of indicators during parameter estimations and then attempts to estimate the omitted part using the estimated parameters (Chin, 2010). Chin (2010) suggests that the omission distance can be any number from 5 to 10, as long as the sample is large. As proposed by Fornell and Cha (1994), a $Q^2 > 0$ implies the model has predictive relevance, whereas $Q^2 < 0$ represents a lack of predictive relevance. Using the blindfolding procedure, we can calculate the cross-validated communality (cv-comm) and cross-validated redundancy (cv-red). However, Chin (2010) suggests that one would use the cv-red measure to examine the predictive relevance of one’s theoretical/structural model (Chin, 2010). Thus, we calculate the cv-red for three endogenous constructs: attitude, subjective norms and intention (see Figure 2). $Q^2$ values are 0.444, 0.125 and 0.398, respectively, indicating the model has predictive relevance.
<table>
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<th>Construct</th>
<th>Item</th>
<th>Loading</th>
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Source: Prepared by the authors.

Notes: AVE, average variance extracted; CR, composite reliability; IRR6, CRE5, CRE6 and EN74 were deleted due to low loadings.
This research study focuses on the factors in mobile advertising message content that influence consumer purchase intention. A quantitative method, using variables consisting of entertainment, informativeness, irritation, credibility, subjective norms and consumer purchase intention, was used to understand the role of these variables in impacting consumer attitude towards mobile advertising.

Results from this study reveal that the entertainment element in the message content has positive influences on consumer attitude towards accepting mobile advertising. Respondents associate entertainment with leisure, joy, excitement and happiness. In this new era of technology, mobile smartphones and
Andronds have become an important media and entertainment platform. The entertainment service in mobile advertising industry has simplified into forms of activities, such as watching and listening to music videos. According to Katterback (2002), mobile advertising is acceptable if the message is concise and funny, as it will immediately capture the consumer’s attention. In addition, young people tend to have a positive attitude towards certain kinds of advertising (Vezina & Paul, 1997).

Additionally, informativeness has been positively perceived by respondents. Respondents associate informativeness with trustworthy sources and timely information. To make the company and product be seen as resourceful and up-to-date, products or services must be delivered to the consumers directly. Mobile advertising is the only platform that provides direct communication to the consumer. This is supported by Kaasinen (2003), who states that consumers, in this new technological era, prefer quick access to information to fulfil their needs and a sense of gratification with regard to first-hand information. This has made mobile advertising into a form of potential two-way communication that takes place between the company and the consumer.

While the study shows favourable attitudes towards mobile advertising for entertainment and informativeness, respondents also perceive mobile advertising as irritating, often annoying, and sometimes disturbing. The irritation factor does not predict attitudes towards advertising. These results conflict with previous researchers mentioned in the literature review. This may be due to the fact that some advertisements do not transmit much information but, rather, are designed to be eye-catching and make the viewer click on them for more details (Le & Nguyen, 2014). However, consumer attitude towards mobile advertising have significant positive effects on their intention to receive mobile advertisements (Shang & Zhe, 2016).
Another possible reason is that the limited size of mobile advertisements constrains the information displayed in the advertisements; thus, the users are quite familiar with the lack of information. Other possible annoyance is receiving unwanted messages, and this reflects negatively on the perception of mobile advertising. According to Stewart and Pavlou (2002), mobile advertising may provide an array of information that confuses the recipient and can distract the consumer with unwanted information. Promotions and information sent through mobile advertising targets a mass focus group and big scale recipients, therefore it is perceived as disturbing to those who does not use this kind of information.

Credibility is another finding in this study that is not supported in other researches done by Le and Nguyen (2014) and Zernigah and Sohail (2012). Respondents associate credible characteristics with trustworthy and convincing content, and use it as reference to purchase a product. Smith and Quelch (1996) agrees that the credibility of an advertisement is influenced by different factors especially the company’s own credibility, as well as the bearer of the message. However, credibility is also influenced by the advertising medium. For example, Yang (2007) finds that a message from the Internet achieves is perceived as being less credible than a printed message, unless the message is communicated by a strong brand.

The study also examines the influence of mobile marketing on consumer purchase intention and consumer attitude. From the findings, attitude towards mobile advertising has a positive relationship with purchase intention. One of the factors that may contribute to the result is length of time. In the study done by Boyd and Mason (1999), length of time affects purchase intention. Information sent to consumers using mobile advertising at the wrong time, such as not coinciding with pay day, will also result in low intention to purchase products or services that are being advertised.

In addition, the findings show that subjective norms have a strong relationship with intention to purchase in mobile advertising. Subjective norms were taken into account as an independent variable in this study because they represent reference groups who may influence the consumer’s purchase intention with regard to mobile advertisement. This result is consistent with the result of a past study (Isaid & Faisal, 2015). Additionally, the results are consistent with the extended theory of reasoned action, which states that subjective norms are exogenous variables influencing behavioural intention (Ajzen & Fishbein, 1980).

**Conclusion**

This study can be concluded that Malaysian consumers’ attitude towards mobile advertising message content on purchase intention. The research used framework from Ducoffe (1996), Mackenzie (1989) and Ajzen (1991), which focused on entertainment, informativeness, irritation, credibility and subjective norms. Based on the results, there were significant effects to the factors except irritation and credibility that have no significant effects towards attitudes and purchase intention. Thus, this requires further investigation. Rigorous study with extensive sample size should be done especially looking Gen-Y or young consumer, as they are more influence and active on gadgets.

**Theoretical and Practical Implications**

The theoretical contribution of this article lies in outlining the key influence factors that effect mobile advertising message content on consumer purchase intention. The study is based on the models developed by Ducoffe (1996) and Mackenzie (1989) concerning consumer attitude, for which the perceptual
antecedents are entertainment, informativeness, irritation and credibility. Based on Ajzen and Fishbein (1980), subjective norms are an important dimension that guide future behavioural intention and that is being used in TRA. These four main elements and subjective norms are used to examine the behavioural response of the consumer towards accepting Internet advertising and consumer purchase intention, with respect to mobile advertising. This research model hopes to provide insights and opportunities for marketers to create better strategies in generating consumer behaviour towards SMS/MMS-based advertisements and purchase power.

For marketers, as well as media and marketing professionals, the managerial implications of this study are to help them gain a better understanding the mechanism and message content that lead to more effective mobile advertising campaigns, and therefore to result in a raise in purchase intention. Mobile advertising is an unprecedented way of marketing communications. Although mobile advertising acceptance is on the rise, without a clear understanding of the fundamentals affecting consumer responses to mobile advertising, mobile marketing and advertising professionals will have limited power to generate positive and effective yields from their programmes.

Marketers need to have a better understanding of their target audiences in order to send messages to consumers which contain appropriate language, relevant information and content that matches with the consumers’ profiles and expectations. Findings provide evidence supporting earlier literature that to be successful in mobile advertising campaigns, the message needs to be relevant, highly targeted, personalized and consisting of value added content. Although respondents show a fairly neutral support for mobile advertising, mobile marketers should be encouraged by the strong support for permission-based mobile advertising efforts. The mobile user attitudes might be improved over time if the permission concept is put into practise.

With regard to positive perceptions of the entertainment and informativeness characteristics of mobile advertising, marketers need to look at ways to increase their advertisement through mobile phone. Advertising companies should be advised to carefully design their mobile advertising message content to be more creative, attractive and interactive. Thus, if the mobile advertisers can present the mobile ads pleasingly, and with the appropriate information, consumers will not become annoyed or irritating, and there is a fair possibility that they will engage in ads that they feel are relevant (Chowdhury, Parvin, Weitenberner, & Becker, 2006).

Respondents’ perceptions of the credibility and irritation factors of mobile advertising prove to be relatively negative, resulting in an adverse effect on consumer attitude towards mobile advertising. In order to be successful, it is essential that mobile advertising campaigns first gain the permission of consumers, before sending mobile advertisements, as mobile advertising is considered more acceptable when delivered by a trusted source, as opposed to an unknown one.

Suggestions for Future Research

While this study has accomplished the research objectives, several limitations are recognized and should be taken into consideration for future research. A larger sample size, with regard to Internet coverage (4G data plan), and a wider scope of area (cities), should be used for future research. Random sampling should be taken into account when selecting respondents to participate in the study to avoid uniformity. Future researchers should also develop new scales to measure overall attitudes towards mobile advertisement. Such a scale will need to incorporate more traits and factors, such as advertising value (Ducoffe, 1996). Furthermore, special efforts can be made to determine what message content contributes
to negative attitudes towards mobile advertising, and how attitudes can be changed to raise purchase
intention. Practitioners may use the findings to design marketing programmes that respond to the specific
needs and desires to the consumers, thus increasing positive attitudes. It is hoped that this conceptual model
will initiate new dialogue pertaining to the multiple issues concerning the mobile advertising industry and
consumer needs amongst researchers, marketers and advertising agencies. This study can be enhanced so
that future studies gain a deeper understanding towards mobile advertising, and give more insights to the
advertisers and marketers in developing effective campaign plans with higher credibility.

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Note
Infrastructure-and-Forecasts.html

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