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Article

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Assessing the influence of mobile direct social media advertising on consumer attitudes: a study of Kuwaiti consumers

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ABSTRACT

With the growing number of mobile device users and the rise of engaging social media platforms, the mobile advertising industry is evolving rapidly, presenting marketers with new challenges in reaching customers while maintaining positive attitudes toward advertising. In this paper, we investigated the impact of personalizing advertisements on consumers' attitudes and intentions toward mobile advertising in Kuwait. Additionally, we explored the influence of other factors, such as informativeness, entertainment, credibility, and irritation, which have been reported to affect consumer attitudes. Our study analyzed a sample of 162 usable questionnaire responses using Partial Least Squares. The analysis was carried out in two steps, first examining the measurement model followed by the structural model. This research reveals that entertainment, informativeness, and personalization are the three most crucial attributes affecting consumer attitudes toward mobile advertising in Kuwait, while credibility and irritation have a less significant impact. Interestingly, our results differ from similar studies in different cultures and geographical locations, as consumers in Kuwait display a relatively positive attitude toward receiving mobile advertising. Furthermore, consumers who perceive advertisements as personalized exhibit more favorable attitudes and intentions toward mobile advertising, finding the ads less irritating and more informative and entertaining. Notably, our study highlights that credibility was not a significant factor influencing consumers' attitudes in Kuwait. This could indicate that consumers in an open market, similar to Kuwait, may be more receptive to new brands and products, with lower credibility expectations impacting their attitudes.

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1. Introduction

In recent years, the advertising sector has undergone significant transformations, largely driven by the proliferation of social media applications. According to Dahl (2018), Ashley and Tuten (2015) observed that, due to its interactive character, social media is now allocated a greater proportion of advertising budgets. This shift is driven by consumers becoming more resistant to traditional forms of advertising such as television, newspapers, billboards, and radio (Fransen et al., 2015) as they are exposed to more and more advertisements. Marketers are constantly searching for new, more effective ways to interact with customers. One such way is mobile advertising, which has become an increasingly popular and effective method for businesses to reach consumers who are always online. According to Aydin-Gokgoz et al. (2022), 'Mobile phones have become the all-time, inseparable companions of consumers since the release of the iPhone in 2007'.

The mixture of social media proliferation and technological advancements has ushered in an era of perpetually connected consumers, altering not just consumers themselves, but also their connections with businesses in a variety of ways. Marketers can gather information from consumers and use it to

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construct consumer profiles that generate targeted advertisements and persuade potential customers to make impulsive purchases of new goods and services. Mobile advertising comes in a variety of forms which include mobile web display, in-app display, and search/maps, which are the most lucrative forms of mobile advertising, and all three are predicted to see future growth (Le & Nguyen, 2014). Targeted mobile advertising has gained momentum as a prominent and efficient strategy for engaging consumers with shared interests.

It has gained so much momentum due to the use of personalization, which involves the use of the delivery of individualized messages and targeting customer segments with personalized messages (Gaber et al., 2019). Personalized advertisements are created by sophisticated data-driven algorithms that analyze user data (Bol et al., 2018), leveraging advanced techniques such as machine learning and artificial intelligence to identify relevant patterns for targeting specific users (Daems et al., 2019; Van Ooijen & Vrabec, 2019). By utilizing a user's browsing history and location, for instance, algorithms can deliver advertisements tailored to a local restaurant or event.

Personalization can enhance the perceived relevance of advertisements and elicit positive reactions from consumers (Matic et al., 2017). However, Hanson et al. (2020) found that incorrect personalization can reduce trust and credibility in the advertiser, causing discomfort and privacy violations among consumers. Participants in their study had negative views of personalization and were hesitant to share their personal information with advertisers. Therefore, marketers must balance the benefits of personalization with consumer privacy and preferences. In addition to personalization, researchers have been actively investigating other factors that could result in more effective mobile advertising, including entertainment, informativeness, irritation, and credibility.

Against the backdrop of technological advancements and the COVID-19 pandemic, there has been a noticeable surge in mobile adoption for commerce, a development perceived as pivotal for reinforcing the commerce sector (Atshan et al., 2022). Numerous studies have investigated this phenomenon, one of which explores the impact of social media advertising (SMA) values on customer response, as conducted by Yang et al. (2023). Their study reveals that both hedonic and utilitarian SMA values exert a positive influence on response through engagement, with media involvement serving as a moderating factor. Another study examines predictors of social commerce adoption, highlighting the significance of perceived risks, social bonds, and network effects on wearable payment convenience, as emphasized by Abdullah et al. (2022). This research underscores the notable impact of perceived risk, barriers to wearable payment, and convenience on social commerce intention. Furthermore, a separate study investigates the influence of e-marketing on consumer behavior in Saudi Arabia, demonstrating a substantial effect of social media advertising on consumer buying decisions, moderated by gender, age, and culture, as conducted by Akayleh (2021). Collectively, these studies provide pioneering insights into the effects of social media marketing on consumer behavior and the evolving landscape of commerce.

The evolution of social media and technology has indeed revolutionized consumer behavior and interactions with businesses. Marketers have increasingly embraced personalized mobile advertising, leveraging advanced algorithms to effectively target specific consumer segments. While personalization undoubtedly enhances ad relevance, its misapplication can potentially erode consumer trust. Against the backdrop of technological advancements and the COVID-19 pandemic, there has been a remarkable surge in mobile adoption for commerce. Recent studies underscore the critical importance of comprehending consumer responses and adoption factors, providing invaluable insights for marketers navigating this dynamic landscape. Expanding upon these findings, our research endeavors to explore the impact of personalization and other key factors on consumer attitudes toward mobile advertising in Kuwait. By addressing existing empirical gaps, our study aims to offer practical insights that can empower industry stakeholders to navigate the nuances of mobile advertising in Kuwait's unique market environment.

The main objective of this research is to investigate the effect of personalization and other key factors like entertainment, informativeness, irritation, and credibility on consumers' attitudes toward mobile advertising in Kuwait. These factors are believed to play a crucial role in shaping consumers' attitudes toward mobile advertising (Gaber et al., 2019; Xu et al., 2008), however, empirical evidence concerning the different factors affecting consumers' attitudes towards mobile advertisement is still scarce given the

rapid and continuous change in a technical environment. The results of this research aim to contribute to the existing literature and offer practical information for industry practitioners and marketers.

This paper is organized as follows: The literature review that follows delves into various factors impacting consumer attitudes and intentions toward their purchasing decisions. [Section 3](#) of the paper outlines the research framework, which examines the factors that impact consumer attitudes and intentions toward mobile advertising in Kuwait. The research design is introduced in [section 4](#), with a detailed discussion of the survey conducted, and measurements used, and their reliability. The research findings are presented and discussed in [section 5](#). In the concluding part of the paper ([Section 6](#)), we summarize the research contributions and potential directions for future research. Additionally, in [Section 7](#), we outline the limitations of this study.

2. Literature review

The concept of mobile advertising dates back to the early 2000s when it was first introduced as a means of profiling consumers. De Reyck and Degraeve (2003), defined mobile advertising as the act of sending text messages to well-defined potential customers, to increase the response to the advertisement. Another definition by Leppaniemi et al. (2005) described mobile advertising as a business practice that uses the mobile channel to deliver advertising messages and encourage people to buy products and services. Over time, mobile advertising has evolved into a more personalized and targeted form of advertising, with advancements in technology.

Personalization can encourage more consumer engagement, loyalty, and interest, which will translate into purchases in the long run since personalized mobile ads are more likely to be noticed and remembered by consumers, which would generate a greater influence on their purchasing decisions (Gordon et al., 1998, Kalyanaraman & Sundar, 2006). With increased customer engagement, companies will benefit from consumers having increased brand recall, which will lead to more positive attitudes towards the advertised product or service. Consequently, this can contribute to amplified brand awareness and interest in the market.

According to Matic et al. (2017), personalization can enhance the perceived relevance of advertisements and elicit positive reactions from consumers. More than half of the participants in their study reacted positively to the ads displayed, and almost 60% were willing to share all three types of personal data. This study showed that consumers are comfortable with sharing their data and prefer personalized ads. However, Hanson et al. (2020) found that incorrect personalization can reduce trust and credibility in the advertiser, causing discomfort and privacy violations among Consumers. Participants in their study had negative views of personalization and were hesitant to share their personal information with advertisers. Hence, marketers must strike a balance between the advantages of personalization and respecting consumer privacy and preferences, particularly given the heightened concerns surrounding privacy in social media advertising and internet usage (Almasri & Tahat, 2018; Hanlon & Jones, 2023; Saura et al., 2023; Tahat et al., 2014).

To effectively understand the strategic consequences of customer privacy concerns, Okazaki et al. (2020) provide valuable insights. They found that the use of social channels increases customers' risk perception, disclosure, and use behaviors, whereas web channels lead to decreases in both risk perception and use behavior. This finding is significant, considering the rise of multi- and omnichannel strategies in retail and the need to understand how customer privacy concerns differ across these channels. The paper also highlights the importance of data sensitivity in customer privacy concerns. It demonstrates that customers perceive higher risks when providing highly sensitive data, such as health or financial details, and this perception negatively affects their perceptions of usefulness and use behavior. As evidenced by the literature, privacy concerns will always be a major factor that influences marketing, however, researchers have been actively trying to investigate other factors that could result in more effective mobile advertising, these include entertainment, informativeness, irritation, and credibility.

To attract consumers and draw their attention toward an advertisement, entertainment is often utilized. Entertainment aims to cater to the audience's needs for escapism, diversion, aesthetic enjoyment, or emotional enjoyment (Gaber et al., 2019). Based on research by Scharl et al. (2005), advertisements

that are perceived by consumers as funny and entertaining are generally more well-received when targeting the relevant audience groups. Faraz and Hamid (2011) also came to the same conclusion and suggested that mobile advertising should be both entertaining and relevant to the intended audience. Therefore, to generate favorable responses, effective personalized advertisements should leverage the use of entertainment.

Informativeness in advertising refers to the message's capacity to inform the recipient about different product and service alternatives to help them achieve their desired level of satisfaction (Ducoffe, 1996). Informativeness becomes effective only when a consumer's attention is captured and held throughout the advertisement. By providing pertinent information, advertisers can increase the likelihood of consumers engaging with the advertisement and sharing its content with other potential consumers, as noted by Luarn et al. (2015).

Ducoffe (1996) defines advertisement irritation as the use of techniques in advertising that can be perceived by consumers as annoying, manipulative, insulting, or offensive, leading to it being considered an unwelcome and bothersome influence. Although it has been an old concept, irritation remains prevalent in modern times and is a key reason for consumer criticism of advertising (Greyser, 1973). According to Aktan et al. (2016), consumer preferences have always had a negative correlation with advertisement irritation. The impact of irritation can lead to consumers resorting to ad-blocking software to avoid further irritation.

Credibility, as stated by MacKenzie and Lutz (1989), refers to 'the extent to which consumers perceive the claims made about a brand in advertisements to be truthful and believable'. Credibility is a crucial factor in building trust among consumers. However, in the digital era, credibility is often called into question due to the prevalence of malware, scammers, and bots in the online marketplace. Gaber et al. (2019) emphasize that credibility is one of the most important elements of advertising value. Nonetheless, it is becoming more challenging for consumers to distinguish between reliable and unreliable sources due to the growth of digital advertising. Prendergast et al. (2009) highlight this challenge and note the impact of the aforementioned digital threats on online advertisement credibility.

Several studies have investigated the interplay among the different factors that are believed to influence the consumers' attitudes towards mobile and social media advertisement and their intention to act on it, which is consequently believed to lead to the purchase of the advertised product. For instance, Yang et al. (2023) investigated the influence of social media advertising (SMA) values on customer response, finding that both hedonic and utilitarian SMA values positively impact response through engagement, while media involvement moderates this effect. Abdullah et al. (2022) explored predictors of social commerce adoption, highlighting the significance of perceived risks, social bonds, and network effects on wearable payment convenience, emphasizing their notable impact on social commerce intention. Additionally, Akayleh (2021) examined the impact of e-marketing on consumer behavior in Saudi Arabia, revealing a substantial influence of social media advertising on consumer buying decisions, moderated by gender, age, and culture. These studies provide valuable insights into the effects of social media marketing on consumer behavior and the evolving landscape of commerce.

Xu et al. (2009) conducted a study exploring the variables influencing customer perceptions of mobile advertising in China. Personalization was given particular attention. Their research highlighted a positive correlation between consumer attitudes and their intentions, and personalization was identified as a crucial factor influencing consumer attitudes toward mobile advertising. Tsang et al. (2004) conducted a study to investigate the relationship between consumer attitudes toward mobile advertising and their behavior. The study found that consumers generally hold unfavorable attitudes toward mobile advertising unless they have explicitly agreed to receive it. The results also revealed a direct association between consumer attitudes and behavior. Entertainment and informativeness were found to be predictive of attitude, which subsequently predicted intention. Additionally, credibility and irritation were also found to predict attitude. However, the study conducted by Tsang et al. (2004) did not examine the impact of personalization on consumer attitudes toward mobile advertising. It is important to note that their research did not consider the influence of evolving technology and the prevalence of mobile advertisements through social media in today's digital environment. It is essential to understand that personalization is a factor that should constantly be considered in the context of today's dynamic digital world given the major changes in marketing strategies.

According to Boerman et al. (2021), individuals generally maintain unfavorable attitudes toward personalized advertising. Specifically, the utilization of individual-specific and private information, such as email content and name, along with the sharing of personal information with third parties, and the presentation of higher personalized prices were found to be associated with diminished perceptions of personalized advertising and an increased sense of resistance towards the website, the advertisement itself, and the advertiser. Notably, the study identified a critical juncture termed the 'tipping point', whereby advertisements that disclosed a higher price based on personal information have an extreme number of negative perceptions. These findings suggest that there exist discernible boundaries regarding personalization in advertising, and carelessly transgressing these limits may provoke more adverse reactions from consumers. Thus, Advertisers need to be mindful of the type of information they use, the sharing of that information, and the pricing strategies employed. Crossing these boundaries can lead to negative consumer perceptions and reduced incentives for mobile advertising consumption among consumers.

In their study, Gao and Zang (2016) aimed to identify the factors that impact consumer adoption of mobile advertising. They employed a research model and collected survey data from 302 mobile advertising recipients in China. The study's findings indicated that consumers' intentions to receive mobile advertisements could be attributed to their attitudes towards mobile advertising and incentives, accounting for approximately 80% of the variance. The study also revealed that entertainment, credibility, personalization, and irritation were significant predictors of consumers' attitudes toward mobile advertising, with entertainment being the strongest predictor. Like the present study, Gao and Zang's research found that entertainment and personalization were linked to attitude, which, in turn, predicted intention. However, their study did not examine the impact of informativeness on mobile advertising adoption.

In their study, Gaber et al. (2019) looked at the variables influencing Egyptian consumers' attitudes toward Instagram advertisements as well as the correlation between these views and consumers' perceptions of the businesses being advertised. Through an online survey, they gathered data from 412 Instagram users in Egypt. The study's conclusions show that consumers' opinions of Instagram advertisements are significantly influenced by how credible, entertaining, and non-irritating they feel the message to be. The study also discovered that personalization was not a major predictor of attitude, but entertainment and informativeness were. Additionally, the study did not look into how attitude and aim are related.

In a study published in 2014, Le and Nguyen investigated customer perceptions of mobile advertising. A convenience sample of 206 people was polled by the researchers. The study's results showed that even though many mobile users have unfavorable opinions about advertising, they are aware of the value of mobile advertising. The survey also revealed that customers are more likely to read mobile adverts and be convinced to purchase goods or services when they include amusement and credibility in them. According to Le and Nguyen (2014) research, views were significantly predicted by entertainment and believability but not by irritation. The study, however, did not look at the relationship between informativeness and attitudes.

Parreño et al. (2013) examined the primary drivers of teenagers' attitudes toward mobile advertising and their impact on the acceptance of mobile advertising in their study. The sample consisted of 355 Spanish teenagers and the results showed that entertainment, irritation, and usefulness were the key drivers of teenagers' attitudes towards mobile advertising. Furthermore, the study discovered that perceived usefulness could decrease irritation. However, the study did not assess the impact of credibility, informativeness, or personalization on attitude formation.

Yang (2007) explored the connection between consumer attitudes and intentions to use mobile advertising. The sample size comprised 468 college students in Taiwan. Following TAM2 theory, the study found that consumers' attitudes toward using mobile commerce predicted their attitude toward mobile advertising, which in turn predicted their intention to use mobile advertising. When considering consumers' attitudes towards mobile advertising, the study primarily focused on enjoyment/entertainment, intrusiveness/irritation, and utility/informativeness. However, credibility or personalization was not considered.

Yousif (2012) conducted a study to investigate the factors that influence consumer attitudes toward mobile marketing, specifically the attributes of mobile marketing, the nature of the information provided, excitement and attractiveness, and credibility. The study collected 352 questionnaires. The results

showed that the attributes of mobile marketing, the nature of the information provided, excitement and attractiveness, and credibility do influence consumer attitudes towards mobile marketing. However, using PLS and stepwise regression analyses, the study did not identify credibility as a significant predictor.

In conclusion, the research literature presents conflicting findings regarding the factors that impact mobile advertising, with some factors being considered more important than others. Personalization has been shown to influence consumer attitudes toward mobile advertising, yet further research is needed to examine the relationship and equilibrium between personalization and the various factors. The existing literature lacks a comprehensive analysis that combines various factors, including entertainment, informativeness, irritation, personalization, and credibility into a holistic analysis of consumer attitudes toward mobile advertising. This study aims to fill this gap by exploring the interplay between personalization and other factors in Kuwaiti consumers' attitudes towards mobile advertising.

3. Research framework

Our research investigates the impact of personalization on the attitudes of Kuwaiti mobile users as prospective consumers. Additionally, we explore other factors previously investigated by research works (Chellappa & Sin, 2005; Mittal & Lassar, 1996; Taylor & Todd, 1995; Tsang et al., 2004), including entertainment, informativeness, irritation, and credibility.

To conduct our study, we adopt the framework introduced by Xu (2006) and Xu et al. (2008), which examines these factors in the context of consumers' exposure to mobile advertising over the years. The framework comprises six research hypotheses, as depicted in Figure 1.

H₁: Consumers' **attitude** toward mobile advertisements is affected by their perceived **entertainment** of the advertisement.

H₂: Consumers' **attitude** toward mobile advertisements is affected by their perceived **informativeness** of the advertisement.

H₃: Consumers' **attitude** toward mobile advertisements is affected by their perceived **irritation** by the advertisement.

H₄: Consumers' **attitude** toward mobile advertisements is affected by their perceived **credibility** of the advertisement.

H₅: Consumers' **attitude** toward mobile advertisements is affected by their perceived **personalization** of the advertisement.

H₆: Consumers' **intention** toward mobile advertisement is affected by their **attitude** toward advertising.

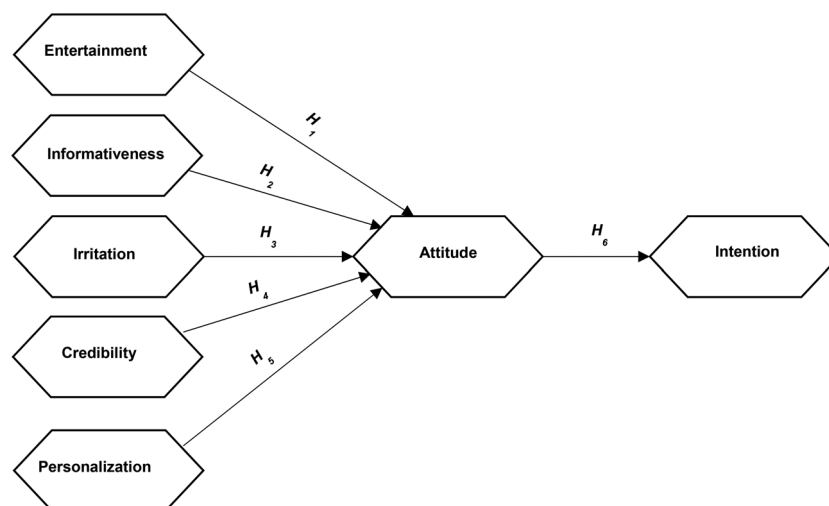


Figure 1. Research conceptual model.

4. Research design

4.1. Questionnaire

An online questionnaire was conducted in April 2022 in Kuwait to test the framework's hypotheses. The questionnaire collected data measuring the five factors expected to affect the attitude and intention of mobile users when exposed to mobile advertisements. A random sampling targeted people in Kuwait who own a smartphone and have at least one social media account. The link to the survey was shared on social media, targeting the residents of Kuwait.

The questionnaire was written in both English and Arabic, where each question was first presented in English, followed by the Arabic translation. A brief introductory paragraph states the purpose of the study and the context of the mobile advertisement, considering text messages, pop-up ads, banner ads, or sponsored content within social media platforms and other mobile apps. It was also clearly stated that the questionnaire was anonymous.

Overall, the questionnaire consisted of four sections. The first section collected demographic data, including age, gender, education level, and occupation. The second section targeted questions measuring the consumers' attitudes and their intentions toward the advertisements they receive on mobile devices. The third section included questions measuring the five factors believed to affect the consumers' attitudes and intentions, namely: entertainment, informativeness, irritation, credibility, and personalization. The last section checked the consumers' attitudes toward personalization, knowing that they use tracking methods that compromise their privacy. All the items of sections 2 to 4 of the questionnaire were measured using a 5-point Likert scale ranging from 'Strongly Disagree', coded as 1, to 'Strongly Agree', coded as 5.

4.2. Measurement

Table 1 shows the different research variables considered in our study, which closely follow the framework introduced by Xu et al. (2009). Most of the questionnaire items for these variables have been used and validated by prior studies (Chellappa & Sin, 2005; Mittal & Lassar, 1996; Taylor & Todd, 1995; Tsang et al., 2004). However, we made slight modifications to the wording of some items to ensure their relevance within the context of mobile advertising on social media platforms. These modifications were made to better fit the unique characteristics and dynamics of our target population and research objectives. Furthermore, our study focuses specifically on the Kuwaiti consumer context, making it distinct from previous research.

4.3. Sample characteristics

A total of 210 questionnaire responses were retrieved out of which 162 questionnaires were useable for this study. The respondents were 24.1% males, 75.3% females, and 0.6% didn't select a gender.

Table 1. List of measures.

Variable	Questionnaire item
Intention (Taylor & Todd, 1995)	1. I will use mobile advertising on social media to consume whenever I have a chance. 2. I intend to use mobile advertising for shopping after I receive it. 3. I expect to use mobile advertising to purchase after receiving it.
Attitude (Taylor & Todd, 1995)	4. Using mobile advertising is a good idea and helps make a better decision when finalizing the purchase.
Entertainment (Tsang et al., 2004)	5. Using mobile advertising is a wise idea. 6. I feel that receiving mobile advertising is enjoyable and entertaining. 7. To me, it is amusing to receive mobile advertising.
Informativeness (Tsang et al., 2004)	8. I feel that receiving mobile advertisements is pleasant. 9. I feel that mobile advertising is a good source of timely information.
Irritation (Tsang et al., 2004)	10. Mobile advertising provides the information I need.
Credibility (Tsang et al., 2004)	11. I feel mobile advertising is irritating. 12. I feel that notification ads on mobile are often annoying. 13. I use personalized mobile advertising as a reference for purchasing.
Personalization (Chellappa & Sin, 2005; Mittal & Lassar, 1996)	14. I trust mobile advertising. 15. The content provided by mobile advertising is credible. 16. I feel that mobile advertising displays a personalized message to me. 17. I feel that mobile advertising is personalizing my usage. 18. Contents in social media advertising are personalized.

The majority of the respondents were young with 50.6% aged 30 or younger, 44% aged between 18 and 45 years, and only 4.8% were above 45 years of age (Figure 2). This could be an indication that younger generations use social media platforms and interact with their content more actively compared to older generations. More than 70% of the respondents had a college degree, 18% of whom held a post-graduate degree (Figure 3).

Table 2 shows the means for each variable for males and females and education levels. No statistically significant differences were observed between genders on any variable, suggesting that these variables are relatively constant between males and females. Similarly, no statistically significant differences were found between different education levels, indicating that the variables remained consistent across the various education groups.

For comparison purposes, t-tests were used for the pairwise comparisons between males and females, and an ANOVA was used to assess differences among education levels, both with a significance level (p-value) of 0.05, corresponding to a 95% confidence level. Furthermore, we conducted a Chi-square test to examine the relationship between age group and level of education. The results indicated a significant association between these two variables ($\chi^2 = 106.48$, $p < 0.001$), indicating that the distribution of education levels varies significantly across different age groups. Furthermore, the analysis demonstrated that education level is highly dependent on age group ($p < 0.001$), as supported by the significant findings from the linear-by-linear association test ($p < 0.001$).

Concerning the user's perception of mobile advertisement personalization, the respondents were divided into three groups: neutral perception, negative perception, and positive perception. Respondents who had a mean score less than the mid value of 3 on the personalization variable were considered as having a negative perception of personalization ($n = 21$, 13.0% of the respondents), and respondents with a mean score more than 3 were considered as having a positive perception of personalization ($n = 116$, 71.6% of the respondents), and respondents with the mid value of 3 were considered as having a neutral perception of personalization ($n = 25$, 15.4% of the respondents). Table 3 reveals notable differences among the three groups of respondents. Specifically, those with a positive perception of personalization

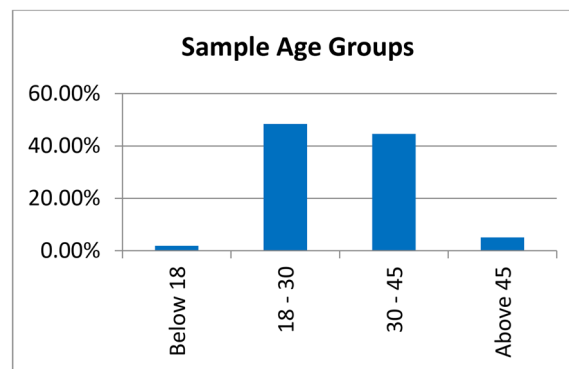


Figure 2. Age groups.

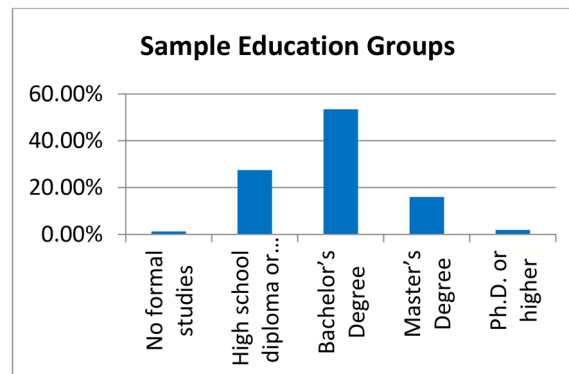


Figure 3. Education groups.

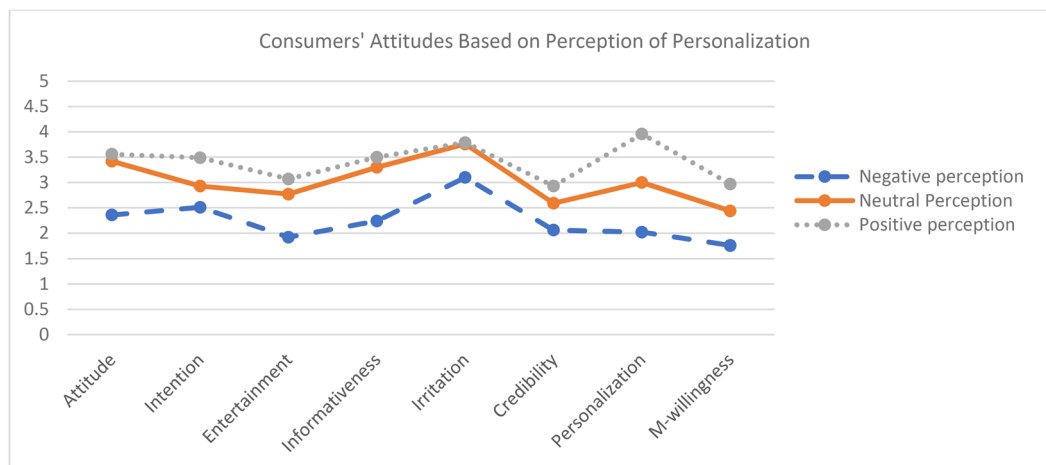
Table 2. Means in different age and education groups.

Variable	Mean per Gender			Mean per Education Level			
	Female	Male	t-test	Secondary	College	Postgrad	ANOVA
Intention	3.28	3.26	0.947	3.37	3.17	3.44	0.274
Attitude	3.39	3.37	0.923	3.52	3.22	3.68	0.056
Entertainment	2.90	2.80	0.654	2.92	2.75	3.19	0.184
Informativeness	3.29	3.36	0.712	3.36	3.19	3.59	0.164
Irritation	3.63	3.90	0.137	3.86	3.71	3.38	0.126
Credibility	2.80	2.62	0.278	2.80	2.68	2.95	0.349
Personalization	3.54	3.63	0.537	3.44	3.54	3.83	0.137

Table 3. Means in different personalization groups.

Variable	Negative perception of Personalization	Neutral Perception of personalization	Positive perception of personalization	Sig. ANOVA
Intention	2.51	2.93	3.49	< 0.001**
Attitude	2.36	3.42	3.56	< 0.001**
Entertainment	1.92	2.77	3.07	< 0.001**
Informativeness	2.24	3.30	3.50	< 0.001**
Irritation	3.10	3.76	3.79	0.012*
Credibility	2.06	2.59	2.93	< 0.001**
Personalization	2.02	3.00	3.96	< 0.001**

Note. [* 0.05] significance level; [** 0.01] significance level.

**Figure 4.** Consumer's attitudes based on perception of personalization.

have a more positive attitude toward mobile advertisement, a greater intention to purchase after receiving it, and a higher willingness to compromise privacy for personalized advertising (Figure 4). They also believe that mobile advertisements are entertaining, informative, credible, and less annoying.

4.4. Data reliability

Cronbach's alpha was used to test data reliability. Table 4 shows that all values are higher than 0.7; which is an indication that the variables and relevant data collected from the questionnaire are reliable and appropriate for further analysis (Hair et al., 1998).

5. Data analysis and results

Following the analyses conducted by Xu et al. (2009), Partial Least Squares (PLS) were used for the data analysis. The analysis was carried out in two steps, where we started by examining the measurement model followed by the structural model. This approach increases the robustness of the study since it ensures that the items used for the measurement have the desirable psychometric properties appropriate for the applied analysis of the structural model (Hair et al., 1998).

5.1. The Measurement model

Convergent validity and discriminant validity were confirmed for the measurement model as presented in Tables 5 and 6.

Table 5 presents the loadings of the measures of the research model. All items have significant path loadings at the 0.05 level. All the values of composite reliability (CR) and average variance extracted (AVE) were above the recommended value of 0.5 (Fornell & Larcker, 1981) which is considered very satisfactory given that the composite reliability was above 0.76 for all variables, and the average variance extracted was above 0.67.

The results presented in Table 6 show that the average variance extracted for each variable had a higher square root value than its correlation with all other variables. This finding establishes that the measures used in the study have discriminant validity (Fornell & Larcker, 1981).

5.2. The structural model

Figure 5 shows the analysis results with overall explanatory powers, estimated path coefficients, where all significant paths are indicated with asterisks and thicker lines, and 95% confidence intervals of the paths. Bootstrap resampling procedure was followed for the significance of all paths. Figure 4 illustrates that, except for the connections between attitude and credibility and attitude and irritation, all the proposed paths in the research model have achieved statistical significance at $\alpha = .05$. The three predictors of behavioral attitude (entertainment, informativeness, personalization) significantly influence behavioral attitude, with path coefficients of 0.40, 0.32, and 0.14, respectively. These three variables account for 55.6 percent of the variation in behavioral attitude. Furthermore, attitude significantly impacts intention, with a path coefficient of 0.639, and accounts for 40.8 percent of the variation in intention.

5.3. Stepwise regression analysis

Table 6 presents the results of a correlation analysis which shows that all five attributes of mobile advertising are significantly associated with customers' overall attitude towards mobile advertising. Specifically,

Table 4. Cronbach's alpha reliability test.

Variables	Cronbach's alpha
Intention (items 1-3)	0.84
Attitude (items 4, 5)	0.86
Entertainment (items 6-8)	0.93
Informativeness (items 9, 10)	0.78
Irritation (items 11, 12)	0.80
Credibility (items 13-15)	0.76
Personalization (items 16-18)	0.81

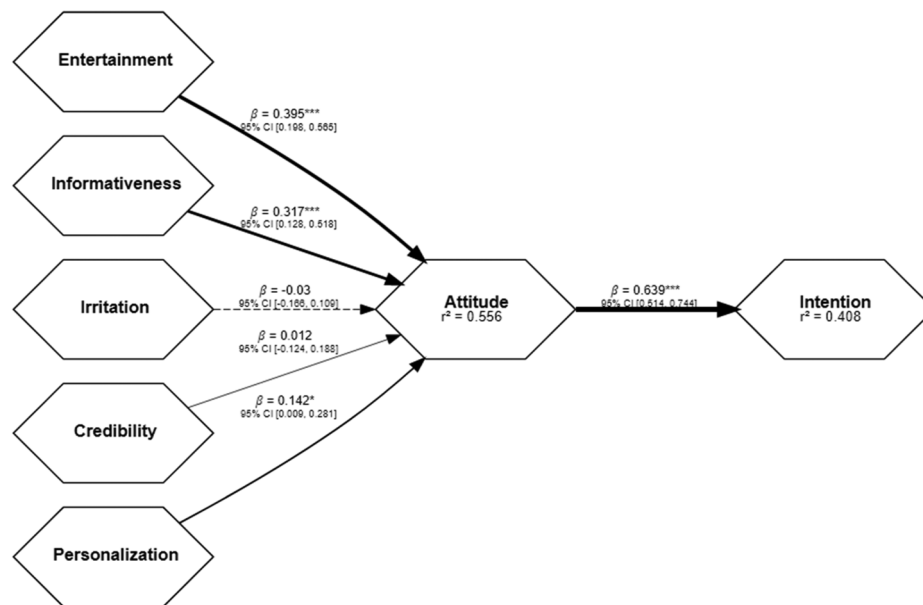
Table 5. Measurement properties.

Variable	Item	Loading	Std. Deviation	t-value
Intention CR = 0.84, AVE = 0.75	1	0.87	0.02	35.93
	2	0.89	0.02	43.57
	3	0.84	0.04	23.59
Attitude CR = 0.86, AVE = 0.87	4	0.94	0.01	79.27
	5	0.93	0.02	58.16
Entertainment CR = 0.93, AVE = 0.87	6	0.93	0.02	63.34
	7	0.94	0.02	63.99
	8	0.93	0.02	43.63
Informativeness CR = 0.78, AVE = 0.82	9	0.92	0.02	49.55
	10	0.89	0.03	28.32
Irritation CR = 0.80, AVE = 0.81	11	0.87	0.24	4.13
	12	0.79	0.21	3.84
Credibility CR = 0.76, AVE = 0.67	13	0.83	0.04	22.66
	14	0.86	0.03	26.46
	15	0.75	0.08	10.11
Personalization CR = 0.81, AVE = 0.73	16	0.88	0.03	25.77
	17	0.89	0.02	36.52
	18	0.78	0.08	10.14

Table 6. Discriminant validity analysis: average variance extracted and correlations between variables.

	Intention	Attitude	Entertainment	Informativeness	Irritation	Credibility	Personalization
Intention	0.868						
Attitude	0.639	0.935					
Entertainment	0.691	0.645	0.933				
Informativeness	0.675	0.548	0.724	0.904			
Irritation	-0.130	-0.120	-0.256	-0.102	0.898		
Credibility	0.548	0.536	0.682	0.655	-0.103	0.819	
Personalization	0.420	0.421	0.364	0.434	0.245	0.399	0.854

Note. Diagonal elements are square roots of the average variance extracted.

**Figure 5.** Partial least squares analysis results.**Table 7.** Results of stepwise regression.

Factor	Standardized Coefficients (beta)	R Square	Adjusted R Square	R Square Change	t-value	Sig
Entertainment	0.409	0.474	0.471	0.474	5.276	< 0.001
Informativeness	0.321	0.539	0.533	0.065	4.006	< 0.001
Personalization	0.130	0.552	0.544	0.013	2.183	0.030

credibility, personalization, informativeness, and entertainment have positive correlations with the overall attitude, whereas irritation has a negative correlation. As these attributes are themselves significantly correlated, a stepwise regression analysis is employed to determine their individual contributions. The outcomes of this analysis, presented in Table 7, reveal that entertainment is the primary factor that influences the overall attitude, accounting for 47.4% of the variance. Informativeness and personalization make smaller contributions of 6.5% and 1.3%, respectively. Irritation and credibility are automatically excluded from the model. Collectively, the three variables (entertainment, informativeness, and personalization) explain 55.2% of the variation in customers' attitudes toward mobile advertising.

5.4. Results discussion

The data analysis reveals that the mean score for respondents' overall attitude towards mobile advertising is 3.39, which is slightly above the neutral score of 3, indicating a slightly favorable attitude towards mobile advertising. In terms of respondents' intention to use mobile advertising, half of the respondents scored above the neutral score with a mean score of 4.01, while the other half scored below the neutral score with a mean score of 1.73, excluding those who scored neutrally. A correlation analysis indicates a

statistically significant relationship between attitude and intention ($p < 0.001$). This suggests that a positive attitude towards mobile advertising is a reliable predictor of the intention to use it for consumption purposes. Thus, the findings support hypothesis 6. To summarize, the results of this study indicate that:

1. Consumers in Kuwait generally have slightly more favorable attitudes toward receiving mobile advertising.
2. Consumers with a positive perception of personalization have a more positive attitude toward mobile advertisements, and a greater intention to purchase after receiving it.
3. Entertainment, informativeness, and personalization are the three important attributes affecting consumer attitudes in Kuwait toward mobile advertising.
4. Credibility and irritation were not found as important attributes affecting consumers' attitudes in Kuwait toward mobile advertising.

Compared to the previous study of Xu et al. (2009), our study found that the attitudes of consumers in Kuwait are slightly favorable with a mean score of 3.39, whereas it was below the mid-value for consumers in China when their attitude was investigated in the year 2009, implying a less favorable attitude. This difference could be due to the adaptation of the consumers to mobile advertisements after more than 10 years of exposure to mobile advertisements, or it could be due to the cultural differences between consumers in Kuwait and China.

Additionally, Xu et al. (2009) found credibility to be a factor in predicting the consumer's attitude toward mobile advertisement, while in our study credibility was not found as a factor. This might be because of the open market nature in Kuwait combined with the exploratory nature of consumers in Kuwait where consumers have access to advertisements for products from all around the world. So, while consumers don't necessarily have high credibility expectations, they may still have favorable attitudes toward the advertisements of unfamiliar brands.

Xu et al. (2009) didn't find informativeness to be a factor affecting consumers' attitudes it was found an important factor in our study. This might be due to the higher educational level of the sample considered in this study compared to Xu's study. However, our findings about the effect of informativeness on consumers' attitudes are consistent with Tsang et al. (2004) as well as other more recent research studies (Gaber et al., 2019; Le & Nguyen, 2014; Parreño et al., 2013; Yousif, 2012).

Similar to Xu et al.'s (2009) study, our research highlighted the impact of personalized advertisements on consumers' attitudes toward mobile advertising. In both studies, it was evident that consumers were more willing to disclose personal information when it resulted in more personalized advertisements. This underscores the importance of personalization as a factor that influences consumer attitudes in the context of mobile advertising.

Expanding upon these findings, our study sheds light on the unique characteristics of consumer attitudes toward mobile advertising in Kuwait. By examining the specific cultural context and interplay of factors, such as entertainment, informativeness, personalization, credibility, and irritation, our research contributes to a comprehensive understanding of consumer behavior in the dynamic digital advertising landscape.

Overall, the results of our study provide valuable insights into the attitudes of Kuwaiti consumers towards mobile advertising, thereby filling a research gap in the existing literature and offering implications for marketers and practitioners seeking to optimize their mobile advertising strategies.

6. Conclusion

Mobile advertising has become a crucial part of modern-day marketing strategies, as the usage of mobile devices and the internet has increased significantly in past decades. Different researchers have studied the factors that influence consumers' attitudes toward mobile advertisements and identified several key attributes, including entertainment, informativeness, irritation, credibility, and personalization.

This research delves into a critical aspect of modern marketing strategies by examining the impact of personalizing mobile advertisements on consumer attitudes and intentions within the specific context of Kuwait. In an era where mobile devices and internet usage have become ubiquitous, understanding how consumers perceive and respond to mobile advertising is paramount for marketers. By identifying entertainment, informativeness, and personalization as key factors influencing consumer attitudes, this study

sheds light on the nuances of mobile advertising effectiveness in Kuwait. Furthermore, the findings suggesting a generally positive attitude towards personalized mobile ads underscore the significance of tailoring advertising content to meet consumer preferences. Importantly, the revelation that credibility holds a lesser sway in influencing consumer attitudes in Kuwait compared to other regions highlights the need for marketers to adapt their strategies to suit local market dynamics. Overall, this research not only contributes valuable insights to the academic literature but also provides practical guidance for industry stakeholders seeking to optimize their mobile advertising efforts in Kuwait and beyond.

By analyzing 162 questionnaire responses, the research discerns entertainment, informativeness, and personalization as pivotal factors influencing consumer attitudes, whereas credibility and irritation exhibit a lesser effect. In contrast to studies conducted in other regions, consumers in Kuwait generally manifest positive attitudes toward mobile advertising, with personalized ads being perceived as less bothersome and more informative and entertaining.

Interestingly, credibility does not significantly affect consumer attitudes, indicating a more liberal market dynamic in Kuwait. This study demonstrates that the attitudes of consumers in Kuwait towards mobile advertising are slightly favorable, with a mean score of 3.39. Furthermore, it identifies entertainment, informativeness, and personalization as the three primary attributes influencing consumer attitudes toward mobile advertising, while credibility and irritation are not deemed significant factors. Additionally, the results indicate that consumers with positive perceptions of personalization exhibit a more favorable attitude toward mobile advertising and a greater intention to make purchases after receiving it.

In essence, the study underscores the significance of personalization in mobile advertising for augmenting consumer attitudes and intentions. Consumers in Kuwait demonstrate favorable attitudes toward mobile ads, particularly when they perceive them as personalized. This underscores the importance of entertainment, informativeness, and personalization in shaping consumer perceptions, while also suggesting a distinct market dynamic where credibility plays a less prominent role in influencing attitudes toward mobile advertising. This paper definitively concludes that mobile advertising is a worthwhile venture to invest in Kuwait.

Additionally, this research contributes to the existing body of knowledge on consumer attitudes toward mobile advertising in the context of Kuwait. It provides valuable insights for future academic studies in mobile advertising and consumer behavior in the Middle Eastern region. Furthermore, the findings of this study have practical implications for brands, businesses, and advertisers seeking to engage consumers through mobile advertising. Marketers can adapt their advertising techniques to match consumer preferences by realizing the value of personalization and entertainment in forming favorable consumer preferences. As a result, businesses can concentrate on providing engaging and tailored mobile ads to promote more positive consumer views, which may then raise buy intentions and strengthen brand loyalty.

For future research, we aim to investigate the impact of cultural and educational levels on determining consumers' attitudes toward mobile advertising. This may provide deeper insights into cross-cultural advertising strategies in the region. Furthermore, it is essential to investigate the extent to which consumers are willing to give up their privacy in exchange for personalized mobile advertising. In conclusion, this study not only sheds light on consumer attitudes toward mobile advertising in Kuwait but also contributes to the broader understanding of its theoretical foundations and practical implications for businesses, brands, and consumers. The insights gained can guide marketers in designing more effective mobile advertising campaigns, fostering a positive and engaging experience for consumers.

7. Limitations of the study

One limitation of this study is the relatively small sample size used for data analysis, with only 162 usable questionnaires out of the 210 responses retrieved. There is also the possibility of self-selection bias in the sample, as participants voluntarily chose to respond to the survey, which might include users with pre-existing positive perceptions of personalization and higher intent on advertising. However, to ensure data quality, rigorous screening procedures and robust statistical analyses were implemented. Future research with larger and more diverse samples could strengthen the study's outcomes and enhance the generalizability of the findings.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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