MOBILE INTERNET USE BY GENERATION Z: EVIDENCE FROM AN EMERGING MARKET

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ABSTRACT

The objective of this paper is to develop and test a theoretical model on the key determinants of generation Z consumers' intention to use mobile internet in an emerging market context. Distinctive B2C model is developed based on Venkatesh el al unified theory of acceptance and use of technology model (UTAUT), Roger's diffusion of innovation model, semi-structured interviews with both telecom experts and mobile internet users, as well as theoretical and empirical foundations in previous literature. The model is testified based on a large-scale survey conducted on 413 mobile users in the Algerian market, 80% of which are from generation Z. Innovation attributes except for observability were found to have a significant influence on mobile internet use. In addition, social factors namely; social influence, image and opinion leadership were all found to be significant factors. Moreover, perceived price level, a marketing mix factor, was found to have a significant effect on mobile internet use. Of all nine proposed relationships, only observability and marketing communication were not found to be significant. The contribution of this paper is twofold. At the theoretical level, this paper develops and tests a theoretical model to study determinants of mobile internet usage by consumers in an emerging market context. Based on previous theories/literature as well as induction through in-depth interviews, it aims at identifying the social factors, innovation factors as well as marketing mix factors that affect generation Z customers' decision to use mobile internet. The interviews helped in developing the model by identifying factors pertinent to the Algerian market, being a late adopter of mobile internet. At the empirical level, this paper extends the fast growing research stream on mobile internet into the context of an emerging market. This study contributes to managerial practice through informing telecommunication companies about the key factors affecting consumers' behavioral intention to use mobile internet. This information is likely to help companies increase youth's usage of mobile internet services. They can also incorporate these factors into their marketing strategies.

Keywords: Antecedents, Mobile Internet, Emerging Market, Usage, Consumer Behavior.

INTRODUCTION

Mobile internet has diffused so fast in the past few years that it has transformed the entire structure of the telecommunications industry worldwide (Chuah et al., 2014). As we live in the information age, the internet provides easy and effective access to immense information to millions of users through wired networks (Kitchen et al., 2015). Mobile internet delivers great value to individuals through time and place flexibility. Generation Z customers have been particularly interested in purchasing mobile phones that has become ubiquitous among millions of them worldwide. The use of mobile phones among younger consumers is increasing rapidly and starting at a younger age (Torlak et al., 2011).

Mobile Internet provides much more than internet access on mobile devices for people to browse their favorite internet websites and access their social networking accounts (Sreejesh & Roy, 2015). It is an effective way of conducting day-to-day business and life activities in an easy and convenient way while on the go. Given the rapid growth of mobile internet, there has been a lot of research on mobile internet adoption and use (Koenig-Lewis et al., 2015, Gao & Bai, 2014; Seetharaman, 2017).

Although extensive research has been done in this field, with many focusing on Millennials, few research focused on generation Z consumers and almost no research exists on those consumers in emerging markets. A clear research gap exists in exploring the factors behind generation Z mobile internet use in an emerging market context. Generation Z constitutes a big target segment of mobile internet users that is growing rapidly in emerging economies, and is thus worth exploring (Tan & Leby Lau, 2016) Additionally, emerging markets are important, as they represent a large opportunity for mobile companies to extend their business, and are big target markets (Kraljic & Pestek, 2016).

To address these gaps, this research contribution is two-fold. At the theoretical level, it adopts an integrated approach, based on previous theories/literature as well as induction through in-depth interviews, to develop and test a distinctive model that combines three groups of factors namely; innovation attributes, social factors and marketing mix factors, to study antecedents of mobile internet use by generation Z consumers. At the empirical level, it focuses on a large and important market in the Middle East, Algeria, that has been a late adopter of mobile internet and that represents a big emerging market for mobile companies. In particular, emerging markets like Algeria have not been researched at all.

Against this backdrop, this research extends the growing body of research on mobile internet by developing an integrated approach to studying the intention to use mobile internet by generation Z consumers in an emerging market context. Hence, the key objective of this research is to propose and test a distinctive B2C model, based on an integrated approach, of the key determinants of generation Z's intention to use Mobile Internet in an emerging market context. Specifically, it aims to identify the factors that will help speed up and increase the use of mobile internet by younger users in an emerging market. At the managerial level, it aims to provide managers with important insights about key factors that influence customers' behavioral intentions when it comes to mobile internet use. Managers can make use of those insights in developing their marketing strategies and targeting customers (Chen et al., 2002).

The following sections provide a detailed review of the extant literature on mobile internet use and discuss the methodology adopted in this research. Findings are then presented and explained. Following that, conclusions, managerial implications and limitations of research are discussed.

Theoretical Background and Hypotheses Development

Most mobile markets have shifted their focus from voice related revenues to revenues generated from data usage. As a result, the mobile data market has become of significant importance to telecom companies as it represents a key area for growth (Informa, 2017). Mobile internet has progressed so fast in the past few years resulting in a total transformation of the telecommunications industry today. Generation Z's communication behavior has also changed greatly over the past few years in terms of how they connect and stay in touch with the world (Shin, 2017; Holdsworth, 2012). Nowadays generation Z consumers are always on the go and mobile internet delivers great value to them through time and place flexibility (Tan & Leby Lau,

2016). It is for these reasons that consumers are shifting to mobile internet. The following is the theoretical background guiding this research.

Basis for Developing the Research Framework

This study relies on two popular theories of technology adoption and use namely; Roger's (2003) theory of innovation adoption and Vankatesh et al. (2003) unified theory of acceptance and use of technology, as well as in-depth interviews, as the basis for developing the research model. Rogers (2003) defined an innovation as *"an idea perceived as new by the individual"*. Later on, this concept was broadened to include *"practices"* and *"objects"* as well as ideas (Rogers & Shoemaker, 1971; Rogers, 1983). Innovation was later developed to include the *"individual"* or any other component of adoption under study (Rogers, 2003).

The unified theory of acceptance and use of technology, UTAUT, has been extensively used in research to study the intention of users when adopting information systems (Venkatesh, et al., 2003). Venkatesh et al., (2003) validated a model that relies on four primary constructs that are used to determine users' intentions to use technology innovations namely; performance expectancy, effort expectancy, social influence and facilitating conditions. They used gender, age, experience, and voluntariness as moderators in the proposed relationship figure 1 below. They proposed that determinants and moderators in the UTAUT are interrelated; through which each moderator plays a role in verifying the effect of key determinants. With vast research on the subject, sociology and social psychology studies have determined that gender, for example, plays a key role in moderating influence (Levy, 1988). Similarly, age was found to have a significant effect as a primary mediator for key relationships in the UTAT model.

Roger's (2003) theory of innovation adoption and Venkatesh et al., (2003) UTAUT both represent the building blocks guiding this research. However, in-depth interviews with experts in the telecom industry and young mobile internet users, as well as theoretical and empirical foundations in previous literature also guided model building in this study. Besides innovation attributes, qualitative work indicated that social factors including social influence, image and opinion leadership were important determinants of mobile internet use. Additionally, marketing mix factors, particularly, communication and price were also indicated as important factors. The following section explains how in-depth interviews were conducted and the factors found relevant as a result of the interviews.
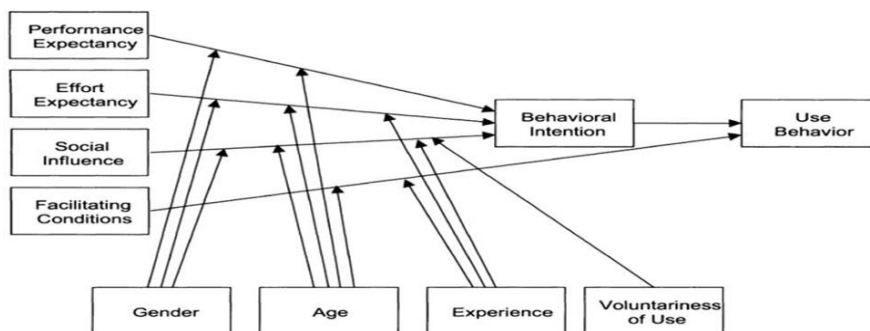

FIGURE 1
UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT).
SOURCE: VENKATESH, V., ET AL., 2003

In-depth Interviews

Although extensive research has been done in the field of mobile internet adoption and use, in depth interviews were conducted at the outset of this research in order understand the current situation in Algeria and the perception of customers concerning mobile internet. These interviews thus helped in developing a model relevant to the context of study. Fifteen semi-structured interviews were conducted in this regards. The qualitative study ended when no new information was found in the answers of the interviewees. Data from these interviews were used in the literature review section to develop the research framework. The semi-structured interviews were conducted with industry experts as well as young mobile internet users between the ages of 18-25, who represent the target population. These interviews were important in soliciting respondents' feedback on variables seen as important determinants of mobile internet use.

Interviewees were selected based on convenience sampling. The interviews were conducted through 45 minutes face to face sessions and were attended by one of the authors. A semi-structured interview guide was developed whereby interview questions were derived from previous literature on mobile internet adoption. In particular, the interview guide included some of the following questions: Do you use mobile internet? Do you think mobile internet is essential nowadays? What do you think will make people use mobile internet? Do you think that peer pressure has a role to play? Do you think communication messages can help? Interviews were recorded and later, interviewees' answers were grouped together, key themes were identified and data was subjectively analyzed.

Interview results' helped determine the variables that will be included in the model from previous literature and other models as well as predicted the marketing mix variables namely; perceived price level and marketing communications as important factors affecting the mobile internet intention to use. Thus, data from the interviews was used to develop the research model. The following sections provide a detailed discussion of the variables validated by previous studies as well as the in-depth interviews that will be explored under this research.

Perceived Innovation Attributes

Relative Advantage is

"The degree to which an innovation is perceived as being better than the idea it supersedes" (Rogers, 2003).

The higher the perceived relative advantage of an innovation, the more likely it is to be adopted. As an important component with strong predictive power, relative advantage has been included in different adoption theories such as TAM and UTAUT where a relationship has been found with perceived usefulness (Davis 1989), and with performance expectancy (Venkatesh et al., 2003). Previous literature suggests that a significant positive relationship exists between relative advantage adoptions of an innovation (Chung & Holdsworth, 2012; Chong & Pervan, 2007, To & Ngai, 2006; Mourad & Tolba, 2010; Premkumar & Roberts, 1999). Relative advantage demonstrated in system quality and information quality of mobile internet services was also found to impact the continued use of mobile internet (Spaid & Flint, 2014; Gao & Bai, 2014). In line with that, it is expected that;

H1: Relative Advantage has a significant impact on generation Z' sintention to use mobile internet.

Compatibility

Compatibility denotes how the current values, former experiences and needs of prospective adopters are consistent with the perception of an innovation (Rogers, 2003). Most previous work suggests that the adoption rate of an innovation increases if the innovation matches the needs of an individual. Researchers found that relative advantage and compatibility are significant factors in e-learning context (Liao & Lu, 2008) and that relative advantage, compatibility and complexity are significant factors in knowledge sharing in organizational context (Lee et al., 2006) and among young consumers (Chung & Holdsworth, 2011). In line with that, it is expected that the more compatible the innovation is with people's lifestyles the more likely it is to diffuse.

H2: Compatibility has a significant impact on generation Z's intention to use mobile internet.

Complexity denotes

"The degree to which an innovation is perceived as relatively difficult to understand and use" (Rogers, 2003).

Most of the previous studies suggest that unlike other attributes, a negative relationship exists between complexity and the rate of adoption of an innovation, confirming that the complexity of an innovation acts as a hurdle in its adoption (Chung & Holdsworth, 2012; Houghton & Winklhofer, 2002, Hassan et al., 2010). Additionally, Hsiao (2013) found that the more individuals perceive that mobile internet services provide easy to use and efficient means of user-system interaction; the more likely they are to use them. In line with that, it is expected that;

H3: Complexity has a significant impact on generation Z's intention to use mobile internet.

Observability denotes

"The degree to which the results of an innovation are visible to others" (Rogers, 2003).

An innovation is more likely to be used if people are impressed by it and can communicate the benefits of using it thus providing visibility to this innovation. Most of the previous studies found observability to have positive correlation with the adoption of an innovation (Chung & Holdsworth; 2012; Chong & Pervan, 2007; Black et al., 2001; Hassan et al., 2010). In line with that, it is expected that;

H4: Observability has a significant impact on generation Z's intention to use mobile internet.

Social Factors

External influences coming from media, family, and work peers are all considered to be social factors (Seetharaman et al., 2017; Fogelgren-Pedersen, 2005; Pura, 2005). Social factors try to capture the effect of the surrounding environment on an individual's behavior. Carroll et al. (2002) concluded that young people struggle in maintaining their social links when they do not use SMS, chatting, and e-mail services. Hence, using such services can contribute in a way or

another to being accepted within the society and maintaining social links as well as improving status and image within a social group.

Social Influence

Social Influence refers to how users believe that important people in their circle would approve disapprove use of a new system (Ajzen, 1991). The diffusion of innovation (DOI) theory suggests that social influence can be separated into two parts: mass media and interpersonal influence (Rogers, 1995). This study is interested to look into the impact of interpersonal influence. In their study on the adoption of mobile banking by millennial generation, Tan & Leby Lau (2016) found that social influence was a key determinant factor. Similarly, in his study on adoption of mobile internet services, Pederson (2005) found a positive effect of social influence on users' intention to use mobile internet. Additionally, Illia et al. (2015) found that social influence featured in critical mass, or the number of users who already use a technology, places more pressure on others to adopt that technology. Moreover, interpersonal influence was found by Asraar & Sathish (2016) as a significant factor that affected adoption of 3G services among Indian professional workers. Social influence was also found by Lu et al. (2003) to be one of the factors affecting wireless mobile technology adoption. MENA region customers tend to have very close relationships with their friends and family and hence the social influence effect is worth investigating within the context of this study. In line with that, it is expected that;

H5: Social Influence has a significant impact on generation Z's intention to use mobile internet.

Image/Prestige

Image/Prestige refers to notion of how innovation adoption is believed to improve one's status within his social group (Moore & Benbasat, 1991).Vankatesh & Davis (2000) introduced Image/Prestige as a belief-related variable and found a significant relationship with technology perception. In their study on mobile services, Marez et al. (2007) found a significant relationship between adoption intention and image/prestige among early adopters. It was also proven by Nistor et al. (2011) that image is a significant determinant of internet banking adoption. Similarly, Yang et al. (2009) identified image as one of the sub-determinants of social influence in their study on the adoption of information technology, and they found a significant direct effect on intention to use among students. Moreover, Kitchen et al., (2015) found that image was a determinant factor on intention to adopt mobile internet services among mobile users in Malaysia. In line with that, it is expected that;

H6: Image/Prestige has a significant impact on generation Z's intention to use mobile internet.

Opinion Leadership

Opinion Leadership refers to

"Individuals who exert an unequal amount of influence on the decisions of others" (Rogers & Cartano, 1962).

Consumers are influenced by other consumers who are important to them. As they socially communicate, they seek advice from consumers who have better knowledge and experience and they also imitate buying and usage behaviors of those they admire (Flynn et al., 1996). Opinion leadership has been researched in the innovation adoption context because of its key role in the consumer decision process (Engel et al., 1990; Koenig-Lewis et al., 2015). Keller & Berry (2003) suggest that marketers should start by targeting opinion leaders first when promoting a new product mainly because opinion leaders will help bring in other consumers and increase the penetration of the new product. Shoham & Ruvio (2008) state that opinion leadership has been identified as one of the main constructs of new product diffusion models. Similarly, Koenig-Lewis et al. (2015) found that influential peers had a significant impact on adoption of mobile payment among young people aged between 18-34 years. Moreover, in a study on the adoption of the mobile news service, Marez et al. (2007) found a significant relationship between product knowledge and adoption intention among early adopters. In line with that, it is expected that;

H7: Opinion Leadership has a significant impact on generation Z's intention to use mobile internet.

Marketing Mix Variables

Marketing Mix variables such as price and marketing communications have been found to affect the adoption decision of an innovation in different contexts. Perceived price level was found to be a significant predictor of behavioral intention by (Lee, 1999; Zeithaml, 1988). Additionally, Liao & Cheung (2001) proposed that an initial willingness to buy is significantly impacted by price. On the other hand, Steenkamp & Gielens (2003) found that marketing communication is a significant predictor of new product adoption, in a study on adoption of new consumer packaged goods. Additionally, in a study on adoption timing of a new e-service among existing customers, Prins & Verhoef (2007) found that customers' time to adoption is shortened by service advertising.

Perceived Price Level

Perceived Price Level suggests that the valuation of the service by customers has an impact on their behavioral intention (Lee, 1999; Zeithaml, 1988). The perceived price level is considered a main factor in deriving behavioral intention especially for young consumers who are usually on a limited budget. The decision is also usually made by parents who finance the purchase. In the context of Mobile Internet use, there is a subscription fee that the customer must pay to be able to use the service. Subscription fees follow the same pricing structure of telecommunication services and may come in the form of monthly fees, pay per use fees and bundle/package fees or a mixture. This study will focus on understanding the impact of the customers' perceived price level of subscription fees on their behavioral intention. According to Xu et al. (2017) price was found to be a significant factor affecting users' adoption of 3G mobile technology. In a study on willingness to e-shop on the internet, Liao & Cheung (2001) found price to be an important factor on buying willingness. Also, in their study on mobile internet acceptance in Korea, Cheong & Park (2005) suggested that perceived price level is a determinant of behavioral intention. Moreover, in a different study on short messaging service (SMS) in China, evidence has been found that popularity of the service relative to other types of mobile

Internet applications was due to its low price (Chan et al., 2008). In line with that, it is expected that;

H8: Perceived Price Level has a significant impact on generation Z's intention to use mobile internet.

Marketing Communications

Marketing Communications is the *"promotion"* part of the *"marketing mix"* and refers to the means used by companies to inform, encourage, and remind consumers about the products and services they are offering (Keller, 2001). Mass Advertising as a marketing communication tactic is considered in literature to be an important factor that facilitates the diffusion/adoption of an innovation (Bass et al., 1994; Kalish, 1985). In a study on adoption of new consumer packaged goods, Steenkamp & Gielens (2003) found that adoption by target customers is accelerated by mass advertising. Similarly, in their study on marketing communication drivers of adoption timing of a new e-service among existing customers, Prins & Verhoef (2007) found that service advertising shortens customers' time to adoption. In line with that, it is expected that;

H9: Marketing Communications has a significant impact on generation Z's intention to use mobile internet.

Generation Z in the Algerian Mobile Industry

Algeria is the second largest country (by area) in Africa with a population of 42 million people by the end of 2017. Of these 42 million, 55% constitute middle class, 17% upper class and 28% bottom of the pyramid (Mahajan, 2013). Algeria is a young country with 1 in 5 people under the age of 25{1}. The country's population is mainly urbanized, most of it being concentrated in the North. There were around 18.5 million Internet users in Algeria at the beginning of 2017 with a penetration rate of 45.2% {2}.

Algeria has created a dynamic mobile market but mobile internet usage has been quite slow. There are three mobile operators in the Algerian market: Djezzy is the subsidiary of the Egyptian conglomerate Orascom Telecom Holding (currently Global Teleco Holding, a subsidiary of VimpelCom group); Mobilis is the subsidiary of Algerie Telecom (AT); and Nedjma (currently Ooredoo) is the subsidiary of Qtel-owned Wataniya. The Algerian mobile market had approximately 15 million mobile internet subscribers at the end of 2017{2}, with Djezzy holding the market leader position with a market share of 47.9% followed by Mobilis with 29% market share and finally Nedjma (Ooredoo) with a 23.1% market share. Historical data of the mobile operators suggests that the Algerian market is a pre-dominantly prepaid market. The high proportion of prepaid users as well as the intense price war that has been taking place between the mobile operators has resulted in low average revenue per user. This has resulted in the operators trying to seek new revenue streams such as mobile data to generate the required growth by their parent companies. Algeria is one the latest countries in the region to introduce mobile internet when compared to neighboring countries and mobile internet usage is still in its fancy. Generation Z constitutes a big target segment in Algeria and a key market for mobile internet as they are more technology aware and more eager to change. There is high competition in the market among mobile operators who are seeking fast returns on their huge investments. It is essential for these operators to identify the determinants of generation Z's intention to use mobile internet and how they can speed up its diffusion in the market. This research attempts to provide an answer to that.

RESEARCH MODEL

The proposed theoretical framework is developed based on Venkatesh et al. (2003) unified theory of acceptance and use of technology (UTAUT), Rogers (2003) diffusion of innovation (DOI) model, validations from qualitative work in the form of semi-structured interviews with both telecom experts and mobile internet users in the Algerian market, and as well as theoretical and empirical foundations in previous literature.

One of the core determinants of the UTAUT is social factors whereby factors like social influence, image/prestige and opinion leadership have been identified by Venkatesh as important sub-determinants of social influence. Roger's (2003) Diffusion of Innovation (DOI) model indicates that innovation attributes namely; relative advantage, compatibility, complexity, and observability directly influence the innovation adoption rate. Additionally, marketing mix factors have been found in previous literature as important indicators of behavioral intention to use (Prins & Verhoef, 2007; Cheong & Park, 2005). Which variables to take from these previous models and which ones to drop was decided on based on two sources namely previous research findings and results of the qualitative work in the form of in-depth interviews that were conducted at the outset of the research. Results of these interviews confirmed the importance of the innovation attributes and social factors, as well as predicted the marketing mix factors as being of significant impact on mobile internet intention to use.

Thus, the proposed theoretical framework consists of three major groups: first, perceived innovation attributes being; relative advantage (RA), compatibility (COMPA), complexity (COMPL), observability (OB); second, social factors including social influence (SI), image/prestige (I/P), opinion leadership (OP); and third, marketing mix variables including; perceived price level (PPL) and marketing communications (MC). These factors are proposed to have a significant impact on intention to use mobile internet.

METHOD

Data Collection and Sampling Issues

The target population is the total mobile internet users in the Algerian market. Regulatory Authority of Post and Telecommunications (ARPT) claims that the current mobile market in Algeria is estimated to be around 37.2 million subscribers at the end of 2017, which translates into a penetration rate of 97%. The mobile internet market on the other hand was estimated to be around 15 million users at the end of 2017, which represents a penetration rate of 45.2% (Internet World Stats, IWS, 2017). The researcher used a non-probability convenience sampling technique to collect data based on two factors; age and mobile internet use. In total, 413 valid questionnaires were collected for the purpose of this study, 80% of which are consumers under the age of 25 years. Table 1 below shows the sample description.

Table 1 SAMPLE DESCRIPTION			
Measures	**Items**	**Frequency**	**Percentage (%)**
Age	Under 18	98	23.7
	18-24	232	56.2
	25-40	65	15.7
	Above 40	18	4.4
Gender	Female	225	54.5

	Male	188	45.5
Education	Less than high school	46	11.1
	High school or equivalent	51	12.4
	Undergraduate	239	57.9
	Postgraduate	77	18.6
Mobile Operator	Djezzy	188	45.5
	Mobilis	99	24.0
	Nedjma	126	30.5
Phone Used	Iphone	200	48.4
	windows based phone	27	6.6
	Android based phone	70	16.9
	Regular smart phone	116	28.1

Research Instrument

The questionnaire was administered online through Google documents to capitalize on the benefits of this method being low cost, high speed in data collection, flexibility and ease of data tabulation. The questionnaire was sent to the researchers' contacts in universities who were also asked to forward the questionnaire link to students as well as generation Z within their circle of communication covering their family, friends, and colleagues.

The questionnaire is divided into 4 parts covering perceived innovation attributes, social factors, marketing mix variables and demographics. All questions were measured on a five-point Likert scale, from 1: *"strongly agree"* to 5: *"strongly disagree"*. The measurement scales that represent constructs in the research model were developed based on previously validated scales in literature as follows: relative advantage (Premkumar & Roberts, 1999), compatibility (Sultan & Chan, 2000), complexity (Premkumar & Roberts, 1999), observability (Chong & Pervan, 2007), social influence (Venkatesh et al., 2003), image (Moore & Benbasat, 1991), opinion leadership (Hassan et al., 2010), perceived price level (Cheong & Park 2005), marketing communication (Steenkamp & Gielens, 2003). The questionnaire was initially designed in English, then it was sent to an international translation firm to translate it to French, as the vast majority of Algerians speak French as the main language. Once the translation was done, the questionnaire was pilot tested on 10 different Algerian respondents to ensure that the questions were clear and easily understood. Few modifications to language and question format were made based on the results of the pilot test. The questionnaire was then uploaded to the Google document on-line survey platform and the link to the on-line questionnaire was then circulated to the respondents via e-mail, and hence allowing the respondents the flexibility of completing it at their own convenience. A total of 413 usable questionnaires were collected. Reliability of the measurement scales was tested using Cronbach α. All scales showed Cronbach α greater than 0.70 and specifically ranged from 0.721 to 0.921. Thus, it can be concluded that the measures used in this study showed a reasonable level of internal consistency and could be used for further analysis (Hair et al., 1998).

Structural Model and Research Hypotheses

Structural equation modeling (SEM) was used to test the research model and the interrelations between the variables using LISREL 8.7. A confirmatory factor analysis (CFA) was first conducted to test how well the constructs are represented by their measured variables. The results of the CFA indicate a good model fit (CFI=0.955; GFI=0.937; RMSEA=0.07). In addition to the review of the measurement model, the explanatory power of the structural model

was evaluated. The final model includes 9 factors that represent the three independent variable groups in the research model. The factors are represented in the model with their latent scores. Table 2 shows the means, standard deviation (SD), composite reliability (CR) and Average Variance extracted (AVE) of the estimated factors.

Table 2 **ESTIMATED FACTOR CORRELATION MATRIX FROM THE MEASUREMENT MODEL**														
Correlation Matrix														
	Mean	**SD**	**CR**	**AVE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1. INTN	4.534	0.562	0.884	0.720	1									
2. COM	4.432	0.532	0.729	0.724	0.41	1								
3. RA	4.521	0.575	0.757	0.761	0.48	0.26	1							
4. OBS	4.307	0.625	0.734	0.763	0.46	0.47	0.51	1						
5. COMP	4.312	0.641	0.727	0.77	0.51	0.31	0.45	0.62	1					
6. SI	2.887	1.16	0.879	0.751	0.10	-0.09	0.01	-0.05	0.14	1				
7. IM	3.547	1.14	0.824	0.845	0.28	0.28	0.27	0.28	0.33	0.32	1			
8. OL	3.586	0.904	0.724	0.79	0.39	0.28	0.26	0.39	0.38	-0.03		1		
9. PPL	2.99	1.45	0.921	0.886	0.32	0.01	-0.15	-0.20	-0.17	-0.22	-0.42	-0.16	1	
10. MC	2.838	0.984	0.721	0.693	0.01	0.05	-0.01	0.05	0.11	0.16	0.15	0.05	0.09	1

INTN: intention to use; COM: complexity; RA: relative advantage; OBS: observability; COMP: compatibility; SI: social influence; IM: image; OL: opinion leadership; PPL: perceived price level; MC: marketing communication.

In addition to the model fit, convergent validity and discriminant validity of the scales were all tested. Convergent validity is achieved if all item loadings are equal to or greater than the recommended cut-off value of 0.60 (Hair et al., 1998). It was found that the loadings ranged between 0.65 and 0.87, suggesting the convergent validity of the scale. Discriminant validity is the extent to which an item does not relate to the measures of other constructs and is met if the square root of the AVE is greater than the correlation coefficients (Hair et al., 1998). It was found that all the correlation estimates met the criterion. Overall, the evidence of a good model fit, reliability, convergent validity and discriminant validity indicates that the measurement model was appropriate for testing the structural model at the next stage. The model explained a reasonable amount of the variance in the outcome variable; it explained 72% of the variance in the outcome variable. Additionally, the results of the SEM indicate a good model fit (CFI=0.972; GFI=0.978; RMSEA=0.06).

Table 3 **T-STATISTICS AND STANDARDIZED PATH COEFFICIENTS FOR** **HYPOTHESIZED PATHS IN STRUCTURAL MODEL**					
HYPOTHESES	Construct	Estimate	S.E.	C.R.	Supported
H1	RA →INTN	0.361	0.064***	5.67	√
H2	COMP →INTN	0.287	0.061***	4.74	√
H3	COM → INTN	-0.347	0.065***	5.35	√
H4	OBS → INTN	0.025	0.035	0.723	-
H5	SI → INTN	0.158	0.029**	2.016	√
H6	IM → INTN	0.118	0.033***	5.126	√
H7	OL → INTN	0.199	0.039***	5.126	√
H8	PPL → INTN	-0.123	0.024**	5.115	√
H9	MC→INTN	0.042	0.045	0.521	-

Table 3 shows the shows the t-statistics and standardized path coefficients for hypothesized paths in the structural model. This table shows the t-statistics and standardized path coefficients for hypothesized paths in the structural model. *, **, *** indicates significance at p<0.1, p<0.05 and p<0.001 levels respectively. √ indicates that hypothesis is supported and – indicates that hypothesis is not supported. INTN: intention to use; RA: relative advantage; COMP: compatibility; OBS: observability; COM: complexity; SI: social influence; IM: image; OL: opinion leadership; PPL: perceived price level; MC: marketing communication.

RESULTS AND DISCUSSION

Consistent with H1, relative advantage was found to be positively related to intention to use mobile internet, (b=0.361, p<0.001). H2 posits a positive relationship between compatibility and intention to use mobile internet. This hypothesis was also supported (b=0.287, p<0.001). H3 proposed that there is a significant relationship between complexity and intention to use mobile internet. This relationship was also supported (b=-0.347, p<0.001) indicating that the there is an inverse relationship between complexity and mobile internet intention to use. The more complex mobile internet is perceived; the less likely people are going to use it. H4 which proposed that there is a direct association between observability and intention to use was not supported. This might be due to the fact that mobile internet use is prevalent worldwide and thus benefits of its use are evident. Thus, out of the four proposed perceived innovation attributes, only observability was not found to be a significant factor affecting mobile internet intention to use. Relative advantage, compatibility and complexity were found to be significant factors. Moving to social factors, H5 proposed that there is a significant direct relationship between social influence and intention to use mobile internet. This hypothesis was supported (b=0.158, p<0.05). Also, H6 that proposed a direct relationship between image and intention to use mobile internet was supported (b=0.118, p<0.001). Similarly, a significant direct relationship was found between opinion leadership and intention to use mobile internet (b=0.199, p<0.001), as proposed by H7. Thus, all social influence factors proposed were found to be significant predictors of the intention to use mobile internet. Moving to the marketing mix factors, H8 proposed that there is a significant relationship between perceived price level of mobile internet services and intention to use. This hypothesis was supported indicating that there is an inverse relationship between perceived price level and intention to use mobile internet (b=-0.123, p<0.05). H9 proposed a direct relationship between marketing communications and intention to use mobile internet. This hypothesis was not supported as it failed to reach statistical significance. This might indicate that mobile internet users trust more earned media that comes from word of mouth than paid media depending on commercial ads of companies, when making decisions related to mobile internet use. This is also aligned with the fact that young consumers talk more to each other than they listen to companies, thus emphasizing more customer to customer communication models. Thus, out of the two marketing mix variables proposed, only perceived price level was found to be a significant factor impacting mobile internet intention to use.

It can be concluded from these results that Algerian Generation Z have high acceptance of the mobile internet service and they do understand the benefits associated with it. The results also show that complexity and perceived price level both have negative relationships with the intention to use mobile internet. This indicates that younger customers, due to limited budgets, are not willing to pay high prices to use mobile internet and that they want these services to be hassle free as they get easily bored. Observability and marketing communications not being significant factors can be explained by the fact that Algeria is one of the last countries in the

region to provide the service. Due to this fact, generation Z are already aware of mobile internet services and are using them. Marketing communication might play a role in promoting more advanced services of mobile internet. Hence, it is recommended that once mobile internet services are used by the large customer base in Algeria, that the effect of marketing communications can be studied on the advanced use of those services.

CONCLUSION AND MANAGERIAL IMPLICATIONS

This research attempted to study the determinants of generation Z's intention to use Mobile Internet in an emerging market. A distinctive model building on Venkatesh el at. (2003) unified theory of acceptance and use of technology model (UTAUT), Roger's (2003) diffusion of innovation model, semi-structured interviews with both telecom experts and generation Z mobile internet users, as well as theoretical and empirical foundations in previous literature, was developed. The model proposed that three groups of factors namely; perceived innovation attributes, social factors and marketing mix factors have an impact on customers' intention to use mobile internet. Empirical results support all proposed relationships except for observability and marketing communications. Relative advantage, compatibility and complexity were all found to have significant effect on customers' intention to use mobile internet hence hypotheses H1, H2 and H3 were all supported. Hypothesis H4 was not supported indicating that observability is not a significant factor given that mobile internet is not in its early stages of diffusion in emerging markets. It has already been used in many neighboring countries to Algeria and generation Z, being more technology aware, are already familiar with it and the services provided by mobile internet. All three social factors proposed namely; social influence, image and opinion leadership were found to be significant factors impacting mobile internet intention to use; therefore, hypotheses H5, H6 and H7 were all supported. This confirms the importance of friends, peers and influencers on the decision to use mobile internet, particularly among this age group. Of the two marketing mix variables proposed, only perceived price level was found to have a significant inverse relationship with mobile internet intention to use, hence providing support to H8. H9 was not supported as it failed to reach statistical significance. As indicated earlier, this might indicate that customer to customer communication models are more prevalent and more trustworthy among new generations, as it based on shared experiences (Monroe & Lee, 1999).

Given the fact that Algeria is already lagging behind neighboring countries in the use of mobile internet and given the fierce competition between mobile companies, this paper attempts to enable decision makers as well as the marketing managers in the telecom industry to better understand the factors needed to increase the use of mobile internet services, so they can incorporate those insights in their marketing strategies (Zeithmal, 1988).

Marketers and decision makers of Algerian mobile operators need to focus on ensuring that the usefulness of the services is clear to consumers. 3G/4G allows high speed internet access via mobile phones and thus it is crucial to provide useful applications for users such as air ticket booking and purchasing, downloading and watching movies, uploading and downloading photos, playing games, etc. There should also be considerable focus on ensuring compatibility of the service with the lifestyle and needs of the consumers. This can be achieved by providing localized content, such as local videos, music, and games that consumers could relate to. It is also strongly recommended that the service be easy to use since young consumers lose interest quickly. Use of social media influencers and opinion leaders is recommended when marketing for mobile internet services, as opinion leaders are influential among those age brackets. Also, linking mobile internet use with modern and favorable lifestyle will be useful here, as image and

social influence were found to be significant factors. Moreover, it is strongly recommended that marketers highlight the benefits versus the price to counter the adverse effect of price on intention to use mobile internet.

Limitations and Future Research

As previously discussed, the mobile Internet market has so far ventured into rapid evolution and intense competition. The factors that affect mobile internet use can differ from one country to another based on the different cultures and backgrounds of consumers in these markets. It is recommended that researchers compare the results of this study to other studies conducted in different countries within emerging markets in order to measure the effect of culture on customers' intention to use mobile internet.

Future studies can also attempt to study the continued use of mobile internet services based on satisfaction with those services. In addition, future researchers can look into the levels of use of mobile internet services and not just the intention, but rather what are the drivers behind more sophisticated levels of use. Future research can attempt to study the effect of moderators such as demographic variables, service satisfaction as well as internet experience on continued use of mobile internet services.

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