
Consumer news preferences for mobile applications

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Abstract The use of mobile technology has increased dramatically in recent years. Marketers are looking to capitalise on this new form of technology by providing consumers with the information they desire on their mobile devices. This study answers the question of what influences a consumer's attitude to receiving news through mobile applications. User characteristics, such as willingness to conform and attitude toward technology, combined with mobile application characteristics, such as usability and alert provision, are considered for their impact on the dependent variable. The study analyses the results of an online survey, using regression. The results suggest that attitude toward technology is the most important factor contributing to a consumer's attitude to receiving news through mobile applications.

KEYWORDS: mobile, marketing, technology, smartphone, applications, news, current events

INTRODUCTION

The usage of mobile phones continues to rise and advance from the traditional use of a voice communication tool to one that offers multiple channels of communication. The number of mobile devices exceeded the number of landlines globally in 2002 and continues to grow.¹ The growing functionality of smartphones has contributed to making them one of the most prevailing communication aids in

modern society. Many markets are reaching saturation, meaning that everyone who wants a phone has one; indeed, many people even have separate phones for work and personal use.² Certainly, some people are so dependent upon their phones that they feel uncomfortable without them.

The mobile environment is evolving apace. Since the introduction of smartphones with mobile applications,

people have been using their phones for much more than phone calls and text messages. Indeed, mobile applications have enjoyed thriving advancement in mobile technology over the past few years, and now bridge the gap between interpersonal and mass communication through easy and efficient access to a variety of high-quality communication and information sources, meaning that users can keep up with the current media stream at all times.

Mobile applications have a long-term goal of creating relationships with their target market by creating new and innovative strategies to provide more relevant information in a timely manner. It is no understatement to say that they have changed the way people receive information. By gathering and leveraging usage data, mobile applications can deliver rich, customised content through push notifications (alerts).³ This has proven popular with consumers as it saves them the effort of seeking the information, and, furthermore, the content can be accessed at the user's convenience. This kind of increased functionality offers significant potential for the development of marketing efforts through the mobile channel.⁴

Of course, the aim is not simply to make data available but rather to solve consumers' needs.⁵ The average smartphone user downloads 80 applications per mobile device, and spends 94 minutes each day using those apps; however, the average lifespan of an app is only one month.⁶ In the USA, mobile application use now exceeds web browsing and, on a daily basis, smartphone users are spending almost as much time using their apps as they do watching television.⁶ Clearly, mobile applications are big business. This is borne out in the figures: the direct and indirect revenues from sales of mobile applications will total US\$25bn in 2014.⁷

The present study draws on consumer attitude data to offer a number of insights for mobile marketers as well as marketing theorists in the area of mobile applications. First, there is an overview of mobile applications and the changing ways information is received today. Next, the characteristics that lead to more positive attitudes towards receiving news and current events through mobile applications are identified. Having presented the empirical data on consumers' attitudes toward receiving news through non-traditional media, the paper will discuss the implications for managers.

LITERATURE REVIEW

Past research has focused on smartphones, the users of smartphones and mobile advertising through applications.

Attitudes toward receiving current events through mobile applications

As technology in the mobile phone industry is rapidly uncovering ways to simplify consumers' lives, so too are attitudes changing. A 2010 study⁸ of mobile phone use found that, '80 per cent of American adults have cell phones today and 37 per cent of them go online from their phones', adding that, '33 per cent of all cell phone owners now access news from their cell phones'. The category of news that consumers are accessing includes, but is not limited to; weather, current events, sports, traffic and financial information. A Pew Research Center survey⁸ found that over 70 per cent of all adults who follow the news do so for daily discussion purposes; over 60 per cent gain life improvement; over 40 per cent use it as a form of entertainment; and close to 20 per cent have to stay informed due to their careers. Clearly, consumers have found mobile technology to have a key role in meeting their daily current event needs. With increasing ease of use and

increasing reasons to follow news, consumers' attitudes to receiving current events information through mobile applications should also increase.

Many consumers are ignoring standard news sources, such as magazines, newspapers, television and radio and instead opting to find the news on their mobile phones. In a survey of 300,000 mobile phone owners in the USA, close to 90 per cent described their mobile phone as their main source of access to the web.⁹ The survey also found demand for traditional news sources to be decreasing: 'only one in four Americans say they read a newspaper in print'. By contrast, traffic to newspaper websites is robust, with over 40 million visitors per month. The facts show a dramatic shift from traditional to contemporary methods of gathering news — a direct result of changing attitudes towards mobile technology.

Elsewhere,¹⁰ related data show a 'substantial increase in every type of mobile activity, especially mobile applications downloads'. Research and further forecasting predict that the number of downloads should at least quadruple in the near future, ultimately surpassing desktop internet use. Technology has come a long way from the desktop computer to the modern smartphone, and as the technology moves, the consumer follows.

The abovementioned studies explore areas that have seen a great change in consumer attitudes and preference. Simply put, consumer technology is now so advanced that the likelihood of the consumer relying on a single, static channel for information, is nil. When mobile marketers are able to deliver the right message to the right audience, the level of engagement, response and return on investment is unmatched by other media.¹¹ Facebook recently changed its algorithms to increase content-sharing of news and current events. This strategy to

adjust the focus from social interaction to sharing of content is based on the assumption that it is good for the people.¹²

The following sections will explain additional variables that play a key role in understanding consumers' attitudes toward receiving current events through mobile applications.

User characteristics

When determining attitudes to receiving information about current events through mobile applications, it is crucial to understand the perceptions of smartphone users. Users are quick to adapt to the latest technological advances and integrate them into their daily lives. Two key variables are discussed below, namely willingness to conform to new technology and attitudes toward technology.

Willingness to conform to technology

Technology is on the rise and consumers are following in its path. Over time, technology has become increasingly user-friendly in its drive to meet the sociocultural needs of consumers, and now even looks appealing to the non-conformist. With such simplicity in design and technology, smartphones are now being embraced by the late majority: 'the number and popularity of mobile applications is rising dramatically due to the accelerating rate of adoption of smartphones'.¹³ According to a US survey about adult consumption preferences, 'the number of households owning smartphones jumped to 42 per cent in 2011 from 25 per cent in 2009. Furthermore, the number of consumers interested in purchasing a smartphone in the near future increased to 52 per cent in 2011 from 40 per cent in 2010.'¹⁴ In the fast-paced modern world, consumers are always in search of products to help them use time efficiently.

'As adoption of the smartphone grows, Americans are beginning to use their

smartphones as “all in one” devices for a number of different tasks.¹³ As a result of using applications on their smartphones, consumers have found a way to simplify their lives and save time. For example, mobile online searches, GPS navigation, online banking and text messaging have all increased over 10 per cent from 2009 to 2011.¹⁴

The success of mobile marketing is dependent on consumer adoption of mobile devices.¹⁵ Mobile marketers will continue to create user-friendly applications to encourage consumers to adopt mobile devices and use them regularly for a variety of reasons. Consumers are increasingly using mobile applications for their daily activities and communications. Given the hundreds of billions of application downloads, and the regular updates and redesigns, this trend is set to continue.

Attitude toward technology

Mobile phones were first seen as a status symbol, then as a necessity and now as a lifestyle.¹⁶ The average smartphone user checks their handset 150 times per day.¹⁷ The evolution of mobile phones has come with an increased level of awareness of new technologies. Mobile technology provides a media-rich platform for delivering news, information and entertainment to users. Users are leveraging advanced technologies not just for interpersonal communication, but also as a channel for mass communication, to stay connected with the world through news and events, to find information and to seek entertainment. Mobile phones play a crucial role in fulfilling consumers' need to communicate and stay informed.

Mobile phones provide essential services and connections that are making news and shaping the way it is streamed to users.¹⁸ Along with the share of news and entertainment comes the availability to use mobile applications for everyday tasks such

as mobile banking, utilities and much more. Seventy-eight per cent of smartphone users report using mobile applications for customer service purposes.¹⁹

More consumers are using mobile media for mobility and convenience, which has a positive correlation to favourable attitudes toward mobile advertising.²⁰ Knowing these results provides important insight for predicting the factors that influence mobile phone application use for receiving information about current events. Entertainment is one of the higher motivations of mobile media use. Understanding users' attitudes toward technology is an important component when understanding how mobile phone applications are contributing to the retrieval of current events.

Characteristics of mobile applications

The characteristics that make up a mobile application are a determining factor in terms of whether or not the consumer decides to download the application. News reader apps are becoming very popular on smartphones. These applications bring together news stories from multiple sources. Many of these apps are free although some require a subscription or pay-per publication, while a few require a nominal fee to download the application. The present study excludes price due to the small number of respondents who reported paying for news applications. Usability and push notifications will be discussed next.

Usability

Usability is an important aspect of any successful mobile application. If an application is not user-friendly, then it will not be used as often as competitive products that are user-friendly. Nearly 90 per cent of a smartphones users' time is spent on mobile applications, while 35 per cent of their time is spent on news and

information applications.²¹ Mobile applications in general, and news mobile applications in particular, must focus on providing content that is timely and relevant. It should be presented in a format that is organised, modern and visually appealing. The best applications should have a proper mobile interface, rather than a link to a website designed to be viewed on a computer screen. Finally, the layout should be clean with plenty of empty space so as not to overwhelm the viewer. One way to do this is to utilise a layout that makes it easy for the viewer to find what they need. Usability is one of the most important success factors for mobile marketing.²²

Push notifications

News alerts are a driving factor for the user choosing their source of information. Users want alerts so they do not have to look up each event as they hear about it. Alerts can include any kind of breaking news and create a sense of urgency to open the app; one study attributed a 540 per cent increase in usage due to the use of push notifications.⁶ While some users want as many alerts as possible, others prefer only the top-rated alerts. Push notifications have changed the world of mobile applications. One study found that consumers that allow push notifications have an engagement rate of 30–60 per cent, which is much higher than normal retention rates.²³ The downside is that push fatigue may occur as consumers download more applications.

Hypotheses

The hypotheses were constructed for the dependent variable and each of the independent variables. The hypotheses were identified as follows:

- *Characteristics of the user:*
H₁: As the *willingness to conform to technology* increases, the smartphone

user's inclination to receive information on current events through mobile applications will increase.

- **H₂:** As the smartphone user's *attitude toward technology* becomes more positive, their inclination to receive information on current events through mobile applications will increase.

- *Characteristics of the mobile applications:*
H₃: As the *usability* of the application increases, the smartphone user's inclination to receive information on current events through mobile applications will increase.
- **H₄:** As the ability to *provide alerts* increases, the smartphone user's inclination to receive information on current events through mobile applications will increase.

DATA AND METHODOLOGY

Sample

The sample chosen for this study was working adults (20 years of age and over). The survey size consisted of 117 valid usable surveys. To reach this sample, an e-mail with the survey link was sent to businesspeople in a mid-sized city in the southeastern USA.

Measures

Measures were constructed for each of the variables to identify the adapted scales that were used for the final survey. The measures for the dependent variable, attitude toward receiving current events through mobile applications, were adapted from a study by Bhatti.²⁴ The items were: 'receiving current events through mobile applications contributes to the betterment of my life'; and 'I have the necessary means and resources to receive current events from mobile applications'. Two items were constructed for this study:

Table 1: Results of the descriptive statistics

	<i>n</i>	Minimum	Maximum	Mean	SE	SD
ATTITUDE_TOWARD_RECEIVING_NEWS_THROUGH_MOBILE_APPLICATIONS	117	1.00	5.00	3.73	0.08	0.91
WILLINGNESS_TO_CONFORM	117	1.50	5.00	4.16	0.07	0.76
ATTITUDES_TOWARD_TECHNOLOGY	117	1.00	5.00	3.67	0.10	1.04
USABILITY	116	1.00	5.00	3.66	0.08	0.82
PROVIDING_ALERTS	117	1.00	5.00	3.34	0.06	0.65

‘mobile applications satisfy my needs to receive current events’; and ‘I have a positive attitude toward receiving current events through mobile applications’. The willingness to conform items were adapted from the same study and are as follows: ‘it is fashionable and trendy to use smartphones’; and ‘learning to use technology is easy for me’. One item for attitude toward technology was created for this study: ‘overall, I am happy with receiving current events through mobile applications’. The other was adapted from a study by Mathwick *et al.*:²⁵ ‘receiving current events from mobile applications makes my life easier’. Usability items were adapted from a study by Dabholkar *et al.*:²⁶ ‘generally, news mobile applications provide up-to-date news’; ‘generally, news mobile applications are clean, organised, and easy to use’; ‘generally, news mobile applications are modern looking and visually appealing’; and ‘generally, news mobile applications layouts make it easy to find what I need’. One item for providing alerts was created for this study: ‘I like being alerted when there are breaking news headlines’. One item was adapted from a study by Gaski and Etzel:²⁷ ‘most alerts annoy rather than inform’.

Data analysis

Pretest results

The pretest consisted of open-ended questions that were distributed to 22 college students. The pretest sample was

not heavily involved in using mobile news applications due to a lack of interest. Again, this response was likely due to the age of the pretest audience. The surveys concluded that those who did invest themselves with mobile news applications enjoy the categories and topics that are offered. The majority of respondents stated that they receive current events in order to stay updated. When the respondents were asked about what categories were the most popular, the commonality was heavily weighted on sports news. Again, due to the average age of survey respondents, this answer comes as no surprise, as college-age students are generally more interested in sports than news stories. Another answer that was common was the use of the internet after receiving a breaking news headline. The respondents used the internet to gather further information on the different news stories.

Descriptive statistics

Table 1 shows the results of the descriptive statistics. The mean value for attitude toward receiving news through mobile applications (3.73) indicates largely positive attitudes. The mean value for willingness to conform to technology (4.16) indicates that many respondents were willing and able to conform to the new uses of technology. The mean value for attitudes toward technology (3.67) shows that the respondents held stronger attitudes toward technology. The mean

Table 2: Correlation analysis

	1	2	3	4	5
1 Attitude toward receiving news through mobile apps	1.000				
2 Willingness to conform	0.240**	1.000			
3 Attitude toward technology	0.866**	0.195*	1.000		
4 Usability	0.566**	0.437**	0.546**	1.000	
5 Providing alerts	0.221*	0.092	0.170	0.193*	1

*Significance $p = 0.005$; **significance $p = 0.001$.

Table 3: Dependent variable — attitude toward receiving news through mobile applications

	Beta (t-value)	Sig
Willingness to conform	0.035 (0.667)	0.506
Attitude toward technology	0.772 (13.645)	0.000
Usability	0.114 (1.853)	0.067
Providing alerts	0.079 (1.647)	0.102

$R^2 = 0.755$; adjusted $R^2 = 0.746$; F-statistic = 85.430; Significance $p = 0.000$; $n = 115$

value for usability (3.66) highlights that respondents prefer mobile applications that are user-friendly. Finally, the mean value for providing alerts (3.34) indicates that the respondents are more likely to use a mobile application to access current news if alerts are provided in a timely manner.

Correlation analysis

Table 2 shows the correlations between all pairs of data. From the table, one can also see whether the relationship between the variables is positive, negative or non-existent (values closer to one have a strong relationship that is either positive or negative; values that are closer to zero are considered to have no relationship). All variables are positively correlated with the dependent variable, attitude toward receiving news through mobile applications, but attitude toward technology shows the highest correlation.

Regression analysis

Table 3 shows the results of a regression analysis with attitude toward receiving news through mobile applications as the dependent variables and willingness to conform, attitude toward technology, usability and providing alerts as the

independent variables. The regression analysis of the factors only found significance for attitude toward technology. The other factors were not significant in the analysis.

RESULTS

According to the results, only attitude toward technology is significantly related to attitude toward receiving news through mobile applications, supporting Hypothesis 2. This result was expected as it is necessary for a consumer to enjoy technology in order for them to prefer receiving news through a mobile application. This study did not find support for Hypothesis 1, the positive relationship between willingness to conform and attitude toward receiving news through mobile applications; Hypothesis 3, the positive relationship between usability of the mobile application and attitude toward receiving news through mobile applications; or Hypothesis 4, the positive relationship between a mobile application providing alerts and the attitude toward receiving news through mobile applications. Based on the regression results, there is evidence

that the usability construct should be investigated further.

IMPLICATIONS FOR MANAGERS

It is recommended that news companies that use mobile applications to deliver news to their customers should target a customer base with a positive attitude toward technology in general. It would be an inefficient use of the company's time and resources to market a mobile news application to a market that is unlikely to use technology frequently. The results of this research suggest that news companies would have the most success with a mobile application if the market already uses mobile applications for other purposes and sees the value in technology in general.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

The subject of this research is fairly new, making it challenging to find prior research relating directly to the topic. Studies like this one are necessary to broaden the literature on mobile applications. Another limitation is the sample choice because it was located primarily in one geographic area. The same study conducted nationwide or internationally could potentially have different results. Of course, there are always other variables that could be included in a survey such as this, so this is also a limiting factor. Future research should incorporate other factors such as the number and type of other applications the respondent uses frequently, if they have access to television news, etc. Future research should also consider preference for other types of information from mobile applications. Finally, future research should look at various demographic and psychographic characteristics of the sample and attempt to determine the types of

consumer that utilise different mobile applications for certain purposes. As this area is so new in the literature, there are numerous possibilities for future research.

CONCLUSION

This research study explored a timely and relevant topic for today's marketplace: mobile applications. Specifically, it looked at consumers' attitude toward receiving current news through mobile applications and found out that the primary determining factor is the consumer's attitude toward technology. It makes sense that consumers with a positive attitude toward technology in general will also have a positive attitude toward receiving news through mobile applications. These consumers are comfortable with technology and see the additional value in getting their news from a mobile application. The results add to the mobile marketing literature by providing insight into which type of consumer is most interested in a particular kind of information from a mobile application. Marketers can begin to target technology-savvy consumers first with their mobile news applications. Once these consumers have adopted the technology, then marketers can focus on encouraging positive word of mouth and converting other consumers to this type of technology.

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