

Impact of Tech Savviness and Impulsiveness on the Mobile Information Search Behaviour of Young Travellers

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Abstract

The aim of this study is to establish whether impulsiveness and technology savviness influence the use of mobile devices by young travellers to support travel decision making while at the destination. The results of this exploratory study are based on the responses of 274 Generation Y students. Respondents were divided into four groups based on their level of technology savviness and impulsiveness and were then compared based on their use of mobile devices while travelling. The results indicate that in some cases technology savviness may influence the use of mobile devices while travelling but that impulsiveness did not have a strong impact. The results also highlight that mobile devices are used more intensively during domestic trips than international trips.

Keywords: mobile devices, information search, impulsiveness, technology savviness

1 Literature Review

The usage of mobile devices such as cell phones, palm pilots and PDAs is growing rapidly. These devices are becoming the centre of people's personal lives as well an important source of information because they integrate many of the functions that previously required various technologies and devices (Zhang, Adipat & Mowafi, 2009). While the use of mobile devices is increasingly common across age categories, they have been most enthusiastically adopted by Generation Y (Gen Y), who feel the need to be highly connected, mobile and online (Zhang, Adipat & Mowafi, 2009; Economides & Grousopoulou, 2009). The majority of definitions of Gen Y include individuals born between 1977 and 1996 (Benckendorff, Moscardo & Pendergast, 2010). They are a tech savvy generation using mobile technologies on a regular basis. However, Gen Ys are price sensitive and when on holiday their mobile usage patterns vary based on cost, battery life, data processing and access speed (Economides & Grousopoulou, 2009).

A growing body of literature has described and analysed how mobile devices act as important information sources for supporting pre-trip and post-trip communication and decision making processes (Gretzel & Yoo, 2008; Xiang & Gretzel, 2010). While this is useful, travellers also increasingly seek information *in situ* to support their decision making while en-route and onsite at destinations. In the past, visitors have used traditional information sources such as information brochures and tourist guides to make on-site decisions and to plan their itineraries while travelling (Fodness & Murray, 1999). The availability of on-site information has been extended by the use of mobile devices and a number of destinations have developed mobile friendly websites and apps to provide location aware information for travellers already at the destination.

While mobile devices are beginning to receive some research attention, there is little in-depth analysis of how they are influencing the travel behaviours of tourists. Understanding the use of mobile devices by younger travellers is particularly important because they are usually tech savvy early adopters who exhibit much higher levels of involvement with

mobile technologies. The information search behaviour of younger consumers also indicates that they are more spontaneous and susceptible to impulse decisions (Serapin, 2005; Dawson & Kim, 2009). According to McIntyre (2007), in a limited decision making setting there is some likelihood that young tourists might make decisions based on situational influence. Although younger generations do gather information before purchase, they are more likely to make impulse decisions because of the feeling of satisfaction and spontaneity related to this kind of buying (Verplanken & Herabadi, 2001).

Studies on impulse decision making do not feature prominently in the tourism and hospitality literature. Only a small number of studies have discussed the possibility of impulse decision making during travel (Fodness & Murray, 1999). However, no studies have specifically explored how mobile devices might influence young travellers' on-site information search behaviour in a limited decision making setting. This paper seeks to address these limitations by investigating whether impulsiveness influences the mobile information search behaviours of youth travellers. The research is particularly concerned with the use of mobile devices such as smart phones and tablets and whether more impulsive travellers use these devices more frequently to access travel-related information and purchases. It is recognised that different travellers have varying levels of comfort when using mobile devices and as a result this study is also concerned with whether technology savviness influences mobile information search behaviours. The aim of this study is therefore to establish whether impulsiveness and technology savviness influence the use of mobile devices to support decision making while at the destination.

2 Methodology

A five-page questionnaire asked respondents to consider their use of mobile devices during domestic travel as well as international travel. The questionnaire explored whether respondents used their mobile devices to complete travel-related tasks, access information, social media and apps. Impulsiveness was measured by using Rook & Fisher's (1995) five-point buying impulsiveness scale which was modified to fit the aims of the study. A set of five-point scales for measuring technology savviness were developed from previous literature on technology anxiety, technophobia and computer anxiety (Meuter, Ostrom, Bitner & Roundtree, 2003; Sinkovics, Stottinger, Schlegelmilch & Ram, 2002; Heinessen, Glass & Knight, 1987). A convenience sample of Gen Y university students studying tourism, hospitality and event management at an Australian metropolitan university was used for this study. Surveys were collected in three large undergraduate and postgraduate classes. To broaden the sample the survey was also converted to an online format and snowball sampling was used to distribute details of online survey among the non-tourism students and young people aged between 18-25 years. In total 274 respondents completed the questionnaire, including 197 females and 78 males. 86.4% of respondents had undertaken a domestic trip in the last 12 months while 73.9% of respondents had undertaken an international trip. Most respondents (92.7%) were younger than 25 years, with the average age being 21.9 years.

3 Results & Discussion

To explore the research aims respondents were divided into four groups based on their level of technology savviness and impulsiveness as shown in *Table 1*. An impulsiveness score was calculated by summing the ratings for the impulsiveness items. This process

was repeated to produce a technology savviness score for each respondent. The mean scores were used as a cut-off point to divide respondents into low impulse-high impulse and low tech savviness-high tech savviness. The responses for each of these four groups were then compared to explore differences.

Table 1. Respondent categories based on impulsiveness and technology savviness

	More impulsive	Less impulsive
More Tech Savvy	66 (29.6%)	64 (24.2%)
Less Tech Savvy	54 (28.7%)	39 (17.5%)

Respondents were asked to indicate what they used their mobile device while travelling domestically and internationally. *Table 2* provides a summary of the results. Chi-square analyses of responses for domestic travel and international travel revealed no significant differences between the four groups. An overall score was also calculated for each respondent based on how many items were selected on the survey. A higher score indicates that a respondent used the mobile device for a greater number of tasks. A One-way ANOVA indicated a significant difference between the four groups for domestic travel ($F=3.49$; $p=0.02$) but no significant differences were found for international travel. For domestic travel the high-impulse/high tech group and the low-impulse/high tech group had a significantly higher mean score. This would suggest that tech savviness, rather than impulsiveness has a stronger influence on the use of mobile devices while travelling. A paired t-test was conducted to explore differences between domestic and international travel and the results indicated a significant difference ($t=12.05$; $p=0.00$), with respondents being much more likely to use their mobile devices during domestic travel.

Table 2. Key uses of mobile devices during domestic and international travel

Item	High impulse		Low Impulse		High Impulse		Low Impulse	
	High Tech		High Tech		Low Tech		Low Tech	
	Dom %	Int %	Dom %	Int %	Dom %	Int %	Dom %	Int %
Checking social media	28.4	16.1	22.9	15.6	15.6	12.8	11.9	6.9
Making phone calls	27.5	18.8	28.0	18.3	19.3	11.9	16.5	11.0
Sending Texts/MMS	26.6	18.3	25.7	16.5	19.3	12.8	14.7	9.2
Browsing the internet	26.1	13.3	22.5	14.2	15.6	10.1	11.9	6.9
Using GoogleMaps or GPS	24.8	12.8	22.5	11.0	12.4	7.8	11.9	6.0
Checking my emails	23.9	11.9	21.6	13.8	14.7	11.0	10.1	6.4
Posting status updates	22.5	11.9	17.4	11.5	12.8	10.6	7.8	4.6
Instant messaging	17.9	9.6	17.4	11.5	13.3	9.6	6.9	3.7
Downloading & using travel apps	14.2	10.1	13.3	7.8	8.3	6.4	6.9	3.2
Downloading & watching travel videos	11.0	6.0	6.9	2.8	10.1	4.6	5.0	3.7
Checking or writing documents	7.3	4.1	5.0	2.3	5.0	2.3	3.7	1.8
Downloading & playing travel podcasts	2.8	1.8	1.4	0.0	5.0	3.7	2.3	0.9

Respondents were also asked to indicate what travel-related information they were accessing on their mobile device while travelling domestically and internationally. *Table 3* provides a summary of the results. Chi-square analyses of responses for domestic travel and international travel again revealed no significant differences between the four groups. A score was again calculated for each respondent based on how many information items were selected. A higher score indicates that a respondent used their mobile device to for a broader range of items. A One-way ANOVA indicated no significant differences between the four groups of respondents for either domestic or international trips. A paired t-test was conducted to explore differences between domestic and international travel and the results

indicated a significant difference ($t=7.41$; $p=0.00$), with respondents being much more likely to use their mobile devices during domestic travel.

Table 3. Travel-related information use during domestic and international travel

Item	High impulse High Tech		Low Impulse High Tech		High Impulse Low Tech		Low Impulse Low Tech	
	Dom %	Int %	Dom %	Int %	Dom %	Int %	Dom %	Int %
	Checking weather reports	23.2	13.6	22.7	16.2	15.7	14.1	9.6
Checking public transport timetables	22.7	8.6	21.7	11.6	17.7	13.1	10.6	6.6
Checking flight status	11.6	8.1	10.6	7.1	9.1	8.6	5.6	5.1
Searching/booking flights	8.6	4.5	4.5	3.5	8.1	8.1	3.0	3.5
Checking in for flights	7.6	4.0	5.6	3.5	5.6	4.5	2.5	2.0
Finding services around my location	18.7	9.6	18.7	12.1	11.6	9.6	9.6	6.6
Checking prices of services/activities	11.6	6.6	11.1	10.1	7.1	7.6	8.6	5.6
Booking/buying tickets for activities	9.1	6.1	4.0	3.5	6.1	4.5	3.5	2.0
Checking reviews/ratings	10.1	5.6	10.6	8.6	6.1	7.1	4.5	4.5
Posting reviews/ratings	4.0	2.0	1.0	1.0	2.5	1.0	2.0	1.5
Searching/booking accommodation	7.1	5.6	7.6	5.6	5.6	5.6	5.6	4.0
Booking restaurants	6.1	1.5	4.0	4.0	4.5	4.5	2.5	2.0

Finally, respondents were asked specifically about the use of mobile apps to access travel information. *Table 4* indicates the reasons for using mobile apps while travelling. A chi-square analysis indicated no significant differences between the groups.

Table 4. Reasons for using mobile apps while travelling

Item	High impulse High Tech	Low Impulse High Tech	High Impulse Low Tech	Low Impulse Low Tech
	Finding my way	26.7%	26.1%	18.8%
Finding a restaurant	18.8%	19.3%	9.7%	10.2%
Finding attractions or tours	17.6%	18.2%	12.5%	9.1%
Checking flight status	15.9%	11.9%	6.3%	6.8%
Check in for flights	9.1%	4.5%	2.3%	2.8%
Finding a hotel room	8.5%	6.3%	5.7%	5.7%
Booking a hotel room	5.7%	2.8%	3.4%	4.0%
Reserving a restaurant	5.1%	3.4%	4.0%	2.3%
Posting reviews and ratings	2.8%	2.8%	4.0%	1.7%

4 Conclusions

The aim of this study was to establish whether impulsiveness and technology savviness influence the use of mobile devices to support decision making while at the destination. Surprisingly, the results indicate very little difference in the mobile information search behaviours between the four groups of travellers used in this study. It does appear that the two more tech savvy groups use their mobile devices for a greater range of tasks when travelling domestically but impulsiveness seems to have little impact in mobile on mobile search behaviour. Impulsive consumers do not appear to be more likely to use their mobile devices to make impulse decisions about travel experiences or activities. There are several reasons why this might be the case. The size and the scope of the sample used in this study were limited and it would be useful to explore this aim with a larger and more heterogeneous sample. Another consideration is the extent to which respondents in general are using their mobile devices for a range of activities. The results indicate very low levels of penetration for a number of information tools, apps and services, suggesting that these

new technologies are still in the early stages of adoption. The results also indicate significant differences between domestic trips and international trips.

The findings make several contributions to the literature. Studies on impulsiveness do not feature prominently in the tourism and hospitality literature and this exploratory study provides a basis for further studies seeking to explore impulsive decision making. The study also extends the knowledge regarding the available information accessed specifically by young travellers using mobile devices while travelling. The results are also useful for practitioners who have an interest in how information gathered through mobile devices are used to make decisions during travel. Qualitative survey responses indicate that international mobile information search behaviour is constrained by both the availability and cost of network access. This has important practical implications for destinations who design information and apps for international visitors. As roaming costs and network access improves mobile devices may become more attractive for *in situ* information searches and purchases.

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