UNDERSTANDING THE PUSH AND PULL MOTIVATIONAL FACTORS OF TECHNOLOGY USAGE FOR TRAVELING AMONG WOMEN STUDENTS IN USM, PENANG

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Abstract: Students - young, gutsy and tech savvy are becoming an important segment of the travel industry. A report by UNWTO and WYSE shows that the global youth and student travel industry will reach 300 million international youth trips per year. The data also underlines the increasingly important role of women travellers in student travel segment. Their technology proficiency enables them to fulfil a seamless travel experiences besides maintaining a ‘symbolic proximity’ with family and friends while establishing a sense of ‘presence while absent’. This paper seeks to understand the underlying motivations of women students at Universiti Sains Malaysia, Penang to use technology for traveling. Using in depth interviews from 10 women student travelers aged between 20-35 years old, the aspects of their backgrounds and motivations were analysed. The findings indicate three distinct push and pull factors that impacts their motivation. The finding reinforces the increasing demand for travel among women students and the fact that technology has fundamentally reshaped the way travel is planned. This call for tourism stakeholders to make significant shift towards innovative initiatives that will be able to enhance the potential of the youth and student niche market.

Keywords: travel; technology; women students; university; motivation
Introduction

Aina is one of many millions present-day youths and a student who contributes to youth tourism that has become a vital resource for economy. World Tourism Organization (UNWTO) and World Youth Student and Educational Travel Confederation (WYSE) reported that the global youth and student travel industry represents almost 190 million international trips a year and by 2020 it will reach 300 million international youth trips per year. According to Richard et al. (2003, pg.7) youth and student travel has been an important cornerstone of the international travel market for over 50 years and is increasingly being recognized as an important segment of the global travel market. This topic has stimulated a broad range of studies in recent years where most of them have revealed the use of technology by students from various countries for various purposes including traveling. Yet, limited and fragmented studies have been done from the context of gender specifically women students using technology for travel. Gender-based differences are vital to the accurate interpretation of the motivations for women to travel (Uysal et al., 1996, p.49). Additionally, women travellers including students are not a homogenous group as they are demographically different with varied motivational profiles segregated by their individual social constructs. Reeve (2009) argues the process that shape motivations are grounded in internal motives such as needs, intuitions and emotional state, and/or external events derived from environmental, social and cultural sources of an individual.

Anthropology strengthens interdisciplinary tourism studies by offering equivalent critical investigation from the perspective of travelers that explores the structures, practices and values of human, communities and their culture. Intrinsically connected, the two research disciplines combines the strategies of humanist and social science where it becomes the window through which tourism dynamics may well be analysed and understood (Burns, 2004). Initially, the discourse on anthropology and tourism focused on leisure, hospitality, and culture but today, it is studied through numerous social divisions including gender and technology. Tourism represents a multifaceted realm of behaviour, identity, and interaction involving diverse actors, characteristics and organizations. Nature of the travelers can be understood by a range of motivations linked to social and cultural factors. Graburn (1977) explored online communities and found that virtual spaces and the new communicative practices demand the attention of anthropological perspective.

This paper seeks to understand and explain the underlying motivations of women students at Universiti Sains Malaysia, Penang to use technology for traveling. Aziz (2009) posits that travel motivation is one of the least researched areas of tourism empirically and conceptually in Malaysia. By drawing upon the standpoint of prominent anthropology scholars (MacCannell, 1976; Dann 1977; Crompton, 1979) this paper uses the concept of push and pull factors that have been generally accepted to evaluate motivation. As stated by Uysal (1996) women place different importance on some push and pull factors than men. On top, defining sex differences in technology usage will not entirely explain gender difference unless there are given details why the differences occur within the context of the respective gender’s social characteristics, constructs or constraints. For that reason, the framework of push and pull theory is applied and further explored to explain technology usage among women students when traveling. Findings of this study will contribute to what will hope to be an ever-
increasing body of knowledge in the area of gender, tourism and technology development. It is important for tourism stakeholder be mindful of the new trends and move forward to make significant shift from the contemporary marketing style tourism towards an effective online related promotions that will be able to enhance the potential of the youth and student niche market by comprehending travellers’ motivations in order to meet their wants and requirements.

**Literature review**

**Travel and technology**

The new age travel and leisure emerges with new alternative tourism activity and travel choices (Tanrisever et al., 2016). Travel trends reinforced by the diffusion of technology (Conrady, 2007; Chung & Buhalis, 2008; Del Chiappa, 2011; Tribe & Liburd, 2016) have become dominant in travel planning and process that enables social connection among travellers and travel stakeholders through sharing of experiences and information virtually. Digital environment has overtaken the traditional way of travel planning with more flexibility and customer-centric services. Tourism in the 21st century has transformed accessibility of tourism agents and services via online with various search engines (Buhalis & Law, 2008). According to Konwiser (2012) technologies like smartphones, tabs and travel websites enables travelers to search, review, shop and access travel information anywhere in real-time. It is collective new age medium that includes online travel applications, social media, and user generated contents available at the click of one’s finger. The revolution of travel and technology has become one of the most reliable mean by which travelers consult when making travel decisions (Fotis et al., 2012; Leung et al., 2011; Ráthonyi, 2013; Noguti, 2016).

Xiang & Gretzel (2010) showed in the new tourism context, travelers depend on internet for travel planning while Laws (2010) stressed the urgent need to understand the implications of these technologies among young people. It is reported that 61 % of travelers consult online engines before planning a trip (Conrady, 2007; O’Connor, 2008) as social media use by tourism stakeholders especially businesses are becoming common across the globe (Dwivedi, 2011). In her study to explore the extent to which social media influences travellers decision making, Sema (2013) found the use of websites and social media in travel planning had a positive influence on increasing actual travel experience, sharing behaviour and the experience with social media also positively related to actual travel-experience sharing on social media. This was further substantiated by Yu et al. (2014) that technology empower travelers by allowing them two-way information and interactions. Their findings were substantiated by Sarkar’s (2016) study that revealed internet as the most important source of travel information for the respondents and the most effective and reliable tool as source of information was social media technologies or social networking sites. As majority of the studies focused of accessibility and behaviour, it did not explain in detail or explore the intersectional link between the motivation to use online applications and gender or individual social norms.

**Women: Student & Travellers**

Richards (2006) and Mohamed (2010) suggested that youth travel is a dynamic, booming phenomenon and fastest growing travel market segment, with significant potential for long-term growth and economic impact to travel industry. Malaysia Domestic Tourism Survey 2015 reported a total of 176.9 million domestic travelers in 2015 with 88.0 million male
visitors and 88.9 women domestic with majority of the domestic visitors 38% were in the age group of 25 to 39 years and 22% were 24 years and below (Department of Statistics Malaysia, 2016). University students prefer to travel independently from their family (Carr, 2003) and being young, gutsy and tech savvy makes them the right fit for traveling. As a part of the millennial generation, the prevalence and proficiency of technology enables them to fulfill seamless travel experiences. The Boston Consulting Group reports that the millennial generation, defined as those between the ages of 16 and 34, is more interested in traveling abroad as much as possible with easy access to social media and budget-travel tools online. Chiu et al. (2015) argues that even though students have relatively low income, dependent mainly on scholarship and study loans to fund their traveling activities similar to research by Xu et al. (2009) that students have high interest in traveling. Malaysian students are also been exposed to and are comfortable with Web 2.0 applications (Zakaria et al., 2010).

Women travelers especially students are becoming exposed and accustomed to technology besides breaking away from the stereotypical norms. Thanuskodi (2013) detailed that both genders have equal access to Internet; however, the differences are noticed in terms of usage pattern where women students occupy the first position with respect to their overall use of search engines. Similar to that, Petrovic et al. (2016) studied usage of internet among students from three university centres in Serbia, Macedonia and Bulgaria based on gender differences and found that there are very subtle gender differences for services of traveling and accommodation since internet and technology has reduced the gender gap. A study by Yong et al. (2016) in Malaysia shows that compared to men, women students were characterized to be more digital inherent and spent more time on digital native activities. Most studies on youth tourism and online participation have largely focused on their attitudes and technology adoption rather than their motivation in relation to using travel technologies.

In favor of the stance that women students are becoming a significant part of the travel and technology, there is a need to explore the motivation to use technology for traveling. Motivation explains the reason behind an action or decision. As motivation and meaning are best explored when the decisions and choices rests on the travellers, the focus on women students travel strengthens the coherence of the study. Early motivation research theories of Maslow, Herzberg, Crompton constructs the link between three main variables namely human needs, wants and behavior. Studies by Wang and Fesenmaier (2004) in addition to Gretzel and Yoo (2008) identified functionality, social-psychology and hedonic needs as factors that influence the travellers’ behaviour towards technology. Studies related to information technology employed the Technology Acceptance Model (TAM) developed by Davis (1989) to examine the consumer’s attitudes and factors that influence a person’s behaviour to use a specific technology. TAM focuses on two realms namely perceived usefulness and perceived ease of use, which explains the notion about personal consumption and comfort in using a particular system.

As men and women are constructed to behave and interact in ways that perpetuate their gendered identities (Paxton and Hughes, 2016), the motivation factor of technology usage should go beyond predictive variables of technology acceptance and take in account the role of external variables such as gender in influencing those constructs. It is crucial that research on acceptance and adoption of information technologies should consider human factors to enable multiple standpoints. In an attempt to address and examine the motivation theory on technology usage from a different perspective, this study proposes the push and pull framework (Dann, 1981) to explain and argue the motivation factors that influence the usage
of travel technologies and showcase its relation to their choices as women student travellers. According to Jang et al. (2009), the push and pull framework is significant in understanding travel behaviour and explaining reasons behind the decision. Given that it was widely accepted as a useful framework, the model has not been applied to observe technology habit. The relationship between gender, travel and technology motivation require investigation by academics.

Using the push and pull as the theoretical framework, the topic is further investigated to understand the usage of travel technologies. Push factors describes the intangible or fundamental desires while the pull factors are related mainly to the engaging traits of the technology. Kelly et al. (2013) identified gaining access to a service, saving time and money, avoiding financial risk, independence, privacy of purchase, trust in the service company, enjoyment and utilizing less effort as factors that motivates technology usage in travel industry. Chang & Chen (2014) discovered that push factors were dissatisfaction and regret while pull factors were attractive alternatives and costs when they evaluated the push and pull factors that affect the intention of social networking system users. While travel technologies have been growing as a remarkable worldwide phenomenon, there are very limited studies in Malaysia that exemplifies its significance for women travelers such as students in the travel sector. Based on this, two main determinants of push and pull will be closely examined in shaping the respondent’s motivation.

**Methodology**

The study was conducted at University Sains Malaysia (USM) main campus in Penang, situated at the northern region of Peninsular Malaysia. Penang Island is also one of the most visited cities in Malaysia. The respondents of the study were ten Malaysian women students above the age of 18. Using semi-structured in depth interviews the participants were asked to share their main push and pull motivations factor for using technology when traveling. The interviews with a minimum of one hour each took place at various venues around USM campus and were digitally recorded. The questions combined aspects of their background, interest in travel, technology and motivations factors they consider for using travel applications. Participants were asked some basic background questions followed by several questions such as ‘define travel’, “how often they travel” and ‘what are some of their travel stories’ Following that, to focus the students thoughts on technology usage, subsequent questions were asked such as ‘what do you understand by technology and travel’ ‘Do you use online travel applications when traveling? What kind of applications?’ ‘What were the factors they consider when using the technologies and why? They were asked ‘How’ and ‘Why’ open-ended question to response freely about their views. Follow-up questions and confirmation were made to clarify and confirm the points mentioned by the respondents. The push and pull factors offered by the respondents were then adjusted with the identified theoretical framework.

**Findings and Discussion**

Using convenience sampling method, the interviews were conducted around USM main campus in Penang for a month. A total of ten USM women student within the range age of 20 to 35 years old were interviewed. Five of them were postgraduates and the other five undergraduates. Among the respondents, three postgraduate students were married with kids while the rest were single ladies. The number of trips abroad or domestic that they took or planning to take was recorded for references purpose. In general, all the participants
interviewed were tech savvy and travelled at least once using technology. Their technology literacy and participation was reflected as they were keen on using online travel applications and social media when traveling. Table 1 shows the details of the respondents.

<table>
<thead>
<tr>
<th>No</th>
<th>Name (Pseudonym)</th>
<th>School</th>
<th>Year</th>
<th>Age</th>
<th>Marital Status</th>
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</tr>
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<td>Master</td>
<td>28</td>
<td>Married</td>
</tr>
<tr>
<td>10</td>
<td>Emily</td>
<td>Manage</td>
<td>PhD</td>
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<td>Married</td>
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According to Crompton (1977) socio-psychological motive help explain the desire to go on travel as a form of relaxation. When asked to define travel and why they travel, all of the respondents view travel as an adventure, escapism and an interesting activity that enables them to explore new things in life. Miza, an undergraduate student travels to cope with her study pressures. She said “…traveling is fun and helps me to de-stress.” Postgraduates Lilian, Emily and Kartini finds travel a form of gateway from their hectic lifestyle and primary roles as mothers or wife. On a different note, Aina explained why she loves traveling while sharing her recent trip to South Korea “…because it expands your horizon, you get to experience different culture and get learn from them. Cultures that are new to me excite me”. It substantiates the findings of Jamrozy and Uysal (1994) that travel is about experiencing a new life-style and different cultures. The values attached to travel from the perspective of women travelers is set alongside the findings of Cavagnaro and Staffieri (2015) that women is motivated to experience personal growth and profound contact with people and places using new travel innovations. The follow up questions discussed the underlying push and pull factors for the respondents to use technology in their travel process. Based on the data obtained, three main thematic categories were formed for each pull and push factors as they were discussed most by the respondents. The three categories for push were affordability, safety and time while the pull factors were accessibility, trustworthiness and influence.

**Push Factors**

**a) Affordability**

When asked why they prefer to use technology instead of the conventional process, the respondents highlighted that being a student, while they love traveling, they need to be prudent and travel applications offer them the best price and cheaper rate compared to the normal rates. Students prefer cheap, flexible and informal travel itineraries (Pearce, 1990) and most of the time they develop their own travel plan using online information or suggestion
from friends. According to Carr (2005) despite low incomes, university students demonstrate a relatively high travel propensity and a strong desire to engage in tourism experiences (pg.804). In addition to getting financial support from parents or study loans, students also take up part-time jobs to finance their own travel expenses. While studying, managing her family and planning for her travel gateway to India, Kartini used travel applications to book her flight tickets, hotel as well as plan her travel itinerary. Another respondent Lilian compares ticket prices using SkyScanner before purchasing her tickets online. Fatin and Nadia both said that travel applications such as Trivago help them to book good hotels for better rates. The data analysis revealed that different kinds of websites and mobile applications are used to plan and manage the respondents’ traveling such as TripAdvisor, SkyScanner, Trivago and Expedia. Technology and online travel applications offer them affordable measures of travel. This finding concurs with the study by Bai et al. (2005) and Farooqui (2010) that online applications saves cost as it enables travelers to find competitive prices, compare and get the best deal.

b) Time

Besides finance, students are constrained by time. Although they plan their travel gateway during semester breaks, students are restrained by academic obligations and curricular activities to allocate time for planning the travel. Technologies become the primary tool for students to look for information and ease their travel arrangements while saving time. Students look for convenience in making their travel plans from university as they do not have time to go directly (Heung, 2003) to the travel agents such as airline offices. Emily and Kartini, two postgraduate moms rely on technology to ease their travel plans. As a wife, mom and also a postgraduate student, technology is a major necessity when juggling their time between family and studies. Kartini said that “…being a mom, I used internet to plan my recent trip to India. I don’t have time to go see travel agents”. Emily provided a different perspective “…with my busy study schedule and kids, I don’t like to go to the airport and wait in line. I’d rather buy my tickets online. It saves time!” Online booking channels offer flexibility for students to schedule the travel itineraries anytime, anywhere. This is relevant to Taylor and Ampt (2003) claim that online travel applications has eliminate the relevance of the traditional practice as travel transformed as the intermediary channel between travelers and travel service providers.

c) Personal Safety

Women especially students regard personal safety as an important aspect when planning and traveling as discussed by Babin et al. (2001) in his study that safety is an important component of international students’ travel activities. Besides ensuring that their travel destination is safe for them, the technology has enabled them safety by providing opportunity to make arrangements of travel from the comfort and safety of their hostel rooms. Lilian and Amber elaborated that they can make their travel arrangements from university instead of traveling to the travel or airline offices. “…I sit in my class and still able to book tickets without taking a bus to the airport. That is safer for me” says Lilian. According to Bashar (2014), technology creates a safe and trusting social environment for travellers especially women. Safety as a motivation concerns with the women students taking precaution to protect and travel without fear. Amber agrees that technology builds safety for her as a woman by facilitating her travel requirement by giving an example “…I use UBER to travel. The apps display information of the driver. So, I feel more secure”.

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Pull Factors

d) Accessibility

Recker et al. (2001) describes accessibility as a measure of the ability of individuals to reach activity opportunities, within sufficient time subject to the constraints imposed by their daily obligations. The accessibility of various travel information from a plethora of online travel websites provided women students numerous prospects towards traveling. In addition to long-established and commonly recognized tourism information sources, women students also use their social media networking for travel planning. Xiang and Gretzel (2010) offered insight that new online applications have emerged as an important channel where information is made accessible to travelers. As Fatin explains “…I used search engines and blogs to search for the information before I plan my travel itineraries. It is so easy to access to plenty of information online.” Accessibility also enables the travelers to use technology such as social media and mobile communications services to maintain a ‘symbolic proximity’ with family and friends and establish a sense of ‘presence while absent’ while traveling. The respondents used social media and mobile applications to connect with their family and friends while traveling. Kartini elaborates “…I use Skype and WhatsApp to keep in touch with my family especially my son. We will video chat. I will also update my whereabouts to husband via Facebook to avoid any unnecessary worry”

e) Reliability & Trustworthiness

Reliability and trustworthiness of the travel information online is another pull factor that motivates women students to use technology while traveling. For Aina, she trusts the brand associated with the application for instance booking a flight ticket with MAS or AirAsia. Subsequently, travel applications besides being well established, also safeguards all online information shared through online transactions, giving the students a peace of mind Ravald and Grönroos (1996) found that customer establish confidence in the service provider, loyalty and trust based on their previous successful experiences. This was further substantiated by Agag and Masry (2016) when they discovered trust in online is one of the relevant antecedents to form a positive attitude toward online participation. Miza on the other hand says the information is trustworthy as it is from reliable sources and upon uncertainty; she verifies the information using the reviews or comments from other users. As Munoz et al. (2012) explains trust positively affects attitude and intention of travelers using user generated contents online. Gretzel and Yoo (2008) revealed that 97.7% of Internet users who travel said they trust and read other travel reviews during the process of planning a trip.

f) Influence

Building on the findings by previous research that explains the influence of family (Litvin et al., 2004; Kozak, 2010) and friends in travel (Hsu, 2006) the finding of this study confirms that women travelers are indeed influenced to use technology for traveling by family and
friends. Amaro and Duarte (2013) stated that communicability is related to the influence of family and friends, in the sense that people are more likely to use technology to make travel decisions or planning. Aina first travelled to Korea in 2012 with her two sisters and she was influenced to use technology to plan for their travel. Her sisters encouraged her to download the travel applications. Besides Aina, Emily’s husband prompted her travel with technology habit by encouraging her to download various travel applications such as MH Mobile and Trivago. Nadia’s sister who is a member of TripAdvisor motivated Nadia to become a member of the travel community to post reviews and photos as well. Contrary to them, Miza, Fatin, Kartini and Divya were influenced by their friends to use online travel applications. This validates the findings by Ráthonyi (2013) that friends and relatives are the most influential sources of information at travel planning process.

Conclusion

Findings of this paper show the presence of increasing demand from the university student travel market especially among women travellers. Thus, it should be considered as an important segment of the travel sector. The structure of women student’s travel motivation to use technology with the adoption of push and pull model substantiates the findings of Kelly et al. (2013). Considering the characteristics, conditions and constraints of being a woman and a university student proved to bring value to the changing of status quo and gender roles among women students. Besides providing seamless travel experiences, technology has positive effects on women students such as building their self-esteem and confidence while enhancing their social skills. The link between push and pull factors should be generated by tourism authorities and stakeholders to facilitate potential young travellers. Understanding the different gender travel needs will benefit towards creating a better market segmentation. It is high time to accept that significant demographic and gender requirements impacts travel decisions as well as touristic experiences continually. Whilst it showcases the motivation factors in terms of the individual, it also represents the women travel demands. As student travel assumes increasingly important role of in travel segment, tourism marketers can make significant shift from contemporary marketing style tourism towards a more effective and innovative initiatives that will be able to enhance the niche market. Further research can test this motivation model in other contextual situations using male students for comparative analysis or quantitative methods with a bigger sample in future validations. In addition, it could also look at the intersection between the rise of women using technology to travel and their social construct while addressing the role of technologies in transforming the nature of women touristic experiences.

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**Website**

