

THE EFFECTS OF MOBILE ENGAGEMENT ON PSYCHOLOGICAL
EXPERIENCE AMONG MILLENNIAL TOURISTS IN AN URBAN
DESTINATION

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DEDICATION

To my beloved husband and daughter, who have made untold sacrifices and have shown me nothing but love throughout this tough yet incredible journey. Also, to my parents, who have always had my back and always believed that I could go further than I thought I could.

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ABSTRACT

Mobile utilisation has dictated tourists travel consumption and has psychologically altered the way tourists experience a destination. The Millennials, especially are addicted to mobile use and are perceived to contribute to poor tourist–destination encounters. Yet, this human-technology relation has managed to alter the pattern of tourists’ consumption to shape a new experiential dimension based on the technology-emotion relationship. Previous studies have acknowledged the influence of travel-related mobile engagement on the tourism experience. However, the extent of its enhancement on psychological perspective of tourists experience is still unclear. In particular, experience fulfilment is believed to lead to destination attachment and loyalty. Hence, it is critical to gain more insights into the elements that stimulate tourists’ psychological experiences. Therefore, this study aims to measure tourists’ psychological experience from mobile engagement and its impacts on destination attachment and loyalty. Kuala Lumpur City Centre was selected as the study area, as it offers extensive urban experiences. Millennial tourists were specified as the unit of analysis, as they are at the cutting-edge of digitalisation. Purposive sampling was used to select 387 respondents, and metadata tagging ‘#kualalumpur’ and ‘location check-in’ on social media platforms were established to filter the respondents. The findings revealed that Millennial appreciate the benefits of mobile engagement in facilitating and enhancing their travel experiences. Their mobile engagement mostly focused on knowledge-related activities instead of experiential-related activities. Yet, experiential-based mobile engagement was found to have the most significant influence on psychological experience. The psychological experience resulting from mobile engagement also significantly influenced the development of place attachment and destination loyalty. In sum, the mobile engagement experience is a strong antecedent to overall travel satisfaction. The results highlight the need for the city to enhance the competitiveness of its experiential offerings. Acknowledging the link between tourists’ psychological experience and mobile engagement is critical to assist destination management organisations to understand the demand of the current tourists’ market, besides helping to manage destination information infrastructure.

ABSTRAK

Penggunaan peranti mudah alih telah menentukan perjalanan pelancong dan secara psikologi mengubah cara penghayatan pengalaman pelancong di destinasi. Dalam kalangan generasi milenial, keterikatan terhadap penggunaan telefon mudah alih dilihat berpotensi menjejaskan rasa keterikatan dan kesetiaan terhadap sesuatu destinasi pelancongan. Namun, hubungan antara manusia dan teknologi telah berjaya mengubah pola penggunaan pelancong untuk mewujudkan dimensi pengalaman baru berdasarkan hubungan antara teknologi dan emosi. Kajian terdahulu telah memperakui pengaruh penggunaan peranti mudah alih terhadap pengalaman pelancongan. Namun, sejauh mana peningkatan pengalaman psikologi dari perspektif ini masih kurang jelas. Secara khususnya, kepuasan pengalaman yang diperoleh adalah penentu kepada keterikatan dan kesetiaan terhadap sesuatu tempat. Oleh itu, adalah sangat penting untuk mendapatkan lebih banyak pandangan tentang perkara yang merangsang pengalaman psikologi pelancong. Oleh itu, kajian ini bertujuan untuk mengukur pengalaman psikologi pelancong dari penggunaan peranti mudah alih dan kesannya terhadap keterikatan dan kesetiaan di destinasi. Pusat Bandaraya Kuala Lumpur dipilih sebagai kawasan kajian kerana ia menawarkan pengalaman bandar yang luas. Golongan Milenial dipilih sebagai unit analisis kerana mereka selaku pendahulu dalam dunia digital. Persampelan bertujuan digunakan untuk memilih 387 responden dan metadata '#kualalumpur' dan location check-in digunakan di media sosial bagi mengenal pasti responden. Hasil kajian menunjukkan bahawa golongan Milenial menghargai manfaat penggunaan peranti mudah alih dalam memudahkan dan meningkatkan pengalaman perjalanan mereka. Penggunaan peranti mudah alih mereka kebanyakannya lebih tertumpu kepada aktiviti yang berkaitan dengan pengetahuan berbanding aktiviti yang berkaitan dengan pengalaman. Namun, penggunaan peranti mudah alih untuk tujuan pengalaman didapati mempunyai pengaruh paling signifikan terhadap pengalaman psikologi. Pengalaman psikologi yang dihasilkan dari penggunaan peranti mudah alih juga memberi kesan yang signifikan terhadap pembentukan rasa keterikatan dan kesetiaan terhadap destinasi. Secara ringkasnya, penglibatan terhadap peranti mudah alih memberi kesan yang kuat terhadap kepuasan melancong secara keseluruhan. Dapatan kajian memberi penekanan terhadap keperluan bagi penambahbaikan tahap daya saing destinasi dari sudut pengalaman pelancongan yang ditawarkan. Mengenal pasti struktur pengalaman psikologi pelancong dari sudut titik sentuh peranti mudah alih adalah amat penting dalam membantu pihak pengurusan destinasi pelancongan untuk memahami permintaan pelancongan semasa disamping membantu mengurus struktur sistem maklumat berkenaan destinasi.

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LIST OF ABBREVIATIONS

AR	-	Augmented Reality
DBKL	-	Dewan Bandaraya Kuala Lumpur
DMO	-	Destination Management Organisation
EFA	-	Exploratory Factor Analysis
FIT	-	Free Independent Travellers
ICT	-	Information and Communications Technology
IT	-	Information Technology
KL	-	Kuala Lumpur
LRT	-	Light Rail Transit
LTE	-	Long-Term Evolution
MICE	-	Meetings, Incentives, Conventions, Exhibitions
MTs	-	Millennial Tourist
MTE	-	Memorable Tourism Experience
MTG	-	Mobile Tourist Guide
POI	-	Place of Interest
QR	-	Quick Response
TAM	-	Technology Acceptance Model
UTAUT	-	Theory of Acceptance and Use of Technology
VFR	-	Visiting Friends And Relatives
VR	-	Virtual Reality
WOM	-	Word-of-Mouth

LIST OF SYMBOLS

α	-	Cronbach's Alpha
β	-	B coefficient
df	-	Degree of freedom
F	-	F-value
M	-	Mean Score
N, n	-	Population number
p	-	Significant Value
r	-	Pearson's Correlation Value
R^2		R-Square.
SD	-	Standard Deviation
t		t-score

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CHAPTER 1

INTRODUCTION

1.1 Study Background

The tourists' understanding of a destination has a huge influence on their interest to visit. Tourist spatial understanding is developed from interactions with the physical and social environments. These encounters then form a cognitive perception of the surrounding. When encountering a new environment, various information is needed to facilitate the execution of spatial tasks. Through this human-environment interaction, tourists stand to gain a better understanding of a destination and the elements surrounding them (Li, 2006). However, due to knowledge limitations and the complexity of the language in an environment (Morgan, 2009), tourists often face constraints to cordially interact with the environment. To some extent, this constraint may hinder the tourists from making sense of their environment. Thus, tourism interpretation could provide tourists with significant information regarding local elements and simultaneously reveal the meanings of these elements to establish a stimulating, effective interaction between the tourist and the place.

Tourism interpretation is described as a special kind of communication that aims to both deliver information and capture tourist interest and excitement (Moscardo, 1998); hence adding value to the tourism experience. Scholars have noted that the formation of experience is highly psychological in nature (Tuan, 1977; Cartier et al., 2005; Larsen, 2007; Mossberg, 2007; Volo, 2009; Neuhofer et al., 2014). Therefore, to effectively influence tourists' cognitive experience, any form of tourism interpretation must affect tourists emotionally, to trigger their curiosity and to develop a sense of attachment to the place. In sustainable tourism destination, interpretation is perceived as key to instilling awareness among visitors regarding the importance of conservation to preserve fragile settings (Bramwell et al., 1993; Ham et al., 2002; Kuo, 2002; Tubb, 2003; Hwang et al., 2005; Huang et al., 2015). Despite its positive impact,

interpretation from another perspective could overlook the tourists' emotional bond with a destination. This bond is nevertheless an essential indicator of the success of the interpretation in triggering excitement and satisfactory experiences. Instead of focusing on behavioural changes, an interpretation system should also aim to achieve tourist involvement and place attachment (Hwang et al., 2005; Md Noor et al., 2015), since both are immediate antecedents to tourist satisfaction with the interpretation service. As such, if the interpretation is weak, the tourist experience is not fulfilled, in turn, impacting their future behavioural tendencies.

Pre-travel information indeed has a huge influence on tourists' on-site experience and expectation (Larsen, 2007). Although the information gained might be limited, it is still significant enough for tourists to build anticipation of the desired on-site experience. In this case, the destination service provider must deliver on their promised experiences. If the visitor expects certain enjoyable experiences and these experiences match the destination offering, the visitor will be satisfied. Therefore, the interpretation system can be deemed strong and that the visitors have thus enjoyed the destination (Moscardo, 1998). Since tourism interpretation is a medium offered by a destination to enhance visitor knowledge and experience, it needs to be designed based on the psychological mechanism underlying tourist satisfaction to enable it to successfully immerse in the tourists' inner mind (Huang et al., 2015); the essence of interpretation is to attend to the process of human thinking. Moscardo (1996) stressed on the need to consider 'principles of visitor behaviour', per Patterson and Bitgood (1988), to understand the variables for effective interpretation. Interestingly, the principles concentrate on the technicality of interpretation design, such as motion, interactive factors, and triangulation, which are all solutions to navigating the increasing sophistication of tourists nowadays. In other words, destination and interpretation systems must strategically adopt innovative management methods to ensure the effectiveness of the interpretive medium in meeting tourist experience expectation and simultaneously to survive the intense competition within the tourism industry (Buhalis, 1998).

Tourists have now become more empowered because of technological integration. Besides, the tourists' active involvement in experience creation has

changed the way experience is formed (Gretzel et al., 2009). While tourism interpretation should be innovated to improve the tourist-environment interaction, the enhancement of experiences has now gone beyond the fulfilment of expectations, to also include the intensity of technological innovation and tourist participation, also termed experience co-creation (Buhalis, 1998; Neuhofer et al., 2012, 2013, 2014; Wang et al., 2012; Zhang et al., 2018). Zhang et al., (2017) explained tourist on-site engagement as no longer being limited to destination engagement but also constituting technological engagement, especially in this current technological era. This means that interpretation innovations should embrace technology to encourage better destination engagement, without losing its essence, which is to provide enjoyment and develop place attachment among tourists. The effective adoption of technology is subject to the usefulness and ease of use of the technology. Therefore, it is necessary to understand how the technological innovation of tourism interpretation influences the quality of tourist experience and destination attachment (Huang et al., 2015; Zhang et al., 2018).

1.2 Research Gap

The discussion on tourism interpretation really emerged in the past few decades. It has since gained vast interest from professionals across various disciplines, including planning, management, business, and computing (Ramadier et al., 1998; Brown et al., 2003; Li, 2006; Volo, 2009; Rabotic, 2010; Kim et al., 2011). The increasing sophistication and independence of new tourists have pressured the interpretation system to evolve to better satisfy tourist needs. As tourist experiential satisfaction is also influenced by the intensity of technological encounters, interpretation could potentially be enhanced via technological integration and dynamic interaction platforms. Developed countries have incorporated existing technological innovations into their tourism and destination interpretation systems. However, developed societies tend to have a higher acceptance of this integration compared to developing countries, as the former's technological advancement is far ahead of the latter. The various research works in this field in the past twenty years indicate increasing interest in this area (Sheldon, 1993; Buhalis et al., 2000; Brown et al., 2003; Knapp et al., 2004; Fritz et al., 2005; Wang et al., 2012).

As mentioned above, the difference between the developed and developing world is the readiness to adapt to rapid changes. In fact, cities and urban areas more readily adopt diverse media and technology for destination guiding and information systems as a part of their competitive value offering (McCabe et al., 2012; Boes et al., 2016; Pierdicca et al., 2019). In Asia, on the other hand, researchers are increasingly evaluating technological platforms used at destinations as mediators for better destination engagement (Chou et al., 2004; Cheng, 2006; Wang et al., 2012; Chen et al., 2014; Md Noor et al., 2015; Zhang et al., 2018). This phenomenon reflects the increasing public acceptance and adoption towards technology-enabled facilities in the tourism industry to overcome the shortcomings of traditional services.

An understanding of the roles and functions of interpretation and its relationship with tourism experience shows that interpretation aims to achieve three stages of experiential outcomes through interpretive experience. These stages are cognitive (understanding, relevancy), affective (empathy, attitude, satisfaction), and behavioural (word-of-mouth, behavioural intention) (Huang et al., 2015). Many studies have proven the effectiveness of interpretation based on visitors' positive on-site behaviour, but Hwang et al., (2005) highlighted a strong relationship between tourist involvement and place attachment with tourist interpretation satisfaction. Since place attachment is associated with the quality of experience at a destination (Morgan, 2009; Budruk et al., 2013), there is a need to better evaluate the effectiveness of interpretation from an affective experience perspective, as the state of people's inner mind is a better representation of their satisfaction level and future behaviour. In other words, the quality of guiding and interpretation systems can be better evaluated by understanding tourist affective experience.

Since cities and urban areas are the most visited destination, mobile technology utilisation is regarded as critical to improving the travel experience at these locations, especially to facilitate travel movement and activities within complex urban environments (Tokusho et al., 2009; Yovcheva et al., 2012). In line with the effectiveness of the guiding and interpretation system, studies have shown that tourist on-site experience can be significantly improved and enhanced through effective technological engagement. In this case, technology-enhanced experience actually

complements the whole process of forming experiences (Gretzel et al., 2009; Rasinger et al., 2009; Tussyadiah et al., 2011; Neuhofer et al., 2014; Zhang et al., 2018). From another perspective, effective technological engagement does not only offer technology-enabled experiences, but also simultaneously delivers experience co-creation benefits (Neuhofer et al., 2013). This means that technological engagement is not only perceived to offer a quality and reliable guiding system, it also encourages user satisfaction by enabling the co-creation of experience in accordance to user preference (Pierdicca et al., 2019; Sugathan et al., 2019).

Regardless of urban environment complexity and tourist fuzziness regarding spatial environments, most research on the technological innovation of guiding and interpretation systems have focused on ecotourism and cultural tourism destination. This is because of the increasing need to commit to protection and conservation efforts (Kuo, 2002; Knapp et al., 2004; Kim et al., 2011; Wolf et al., 2013; Md Noor et al., 2015). Due to this concentration of study in this area, the significant of technological engagement for travel guiding in complex urban environment is left unknown. In addition, limited works have explored the experiential value offered by a destination (Fan et al., 2020) and its influence on destination attachment and satisfaction (Zhang et al., 2018) despite the many studies that have investigated the effect of interpretation system technological innovation on the user. This therefore making the impact of tourists' technological engagement from the perspective of experiential value to be vaguely known.

In regards to these limitations, the consequence of not having these understanding is that planning and designing of tourists guiding system and the related infrastructure cannot be proactively done based on the suitability of urban setting, as well as suit the process of human thinking. This hence reducing the efficiency and resilience of then tourism infrastructure develop in offering the opportunity for urban paradigm shift for city destination, at the same time instilling stronger tourists' attachment and loyalty to the place. A potential progression in tourists' interpretation and guiding system at urban environment is to have mobile travel guide (MTG) to fit with tourists on-the-go travel need and to stimulate their virtual experience excitement. Therefore, in addressing the above gaps as well as optimising the said potential,

tourists' technology-enhanced experience from mobile engagement at urban destination is studied in this research.

1.3 Problem Statement

Interpretation services significantly affect the mindfulness of tourists within specified destinations. As the name implies, interpretation is expected to deliver the required information for visitors to better understand exhibitions and to trigger their excitement to further explore a destination. Interpretation encourages meaningful physical and social encounters. With interpretation, tourists could become more attached to a place. Emotional bonding will likely cause the tourists to form favourable behaviour and then potentially visit the same place in the future (Hwang et al., 2005; Yuksel et al., 2010; Prayag et al., 2012). Despite their importance, interpretation systems are not normally designed with the consideration of visitors' desire. Certain places have interpretation systems that lack conscientiousness—applying quantity over quality, causing tourists to become mindless rather than mindful (Moscardo, 1996; Hwang et al., 2005; Poria et al., 2009). As a result, tourists become poorly satisfied with the interpretation service, and will then become less attached to the place.

From a destination management perspective, place attachment is important to psychologically evoke tourist experience satisfaction (Yuksel et al., 2010). Place attachment is a concept in which tourists value their surroundings in such a way that they feel personally bonded to the place. This bonding is developed from experiencing the destination. Attachment to a place is a strong psychological attachment that binds tourists to their 'space', further developing a sense of loyalty (Yuksel et al., 2010; Budruk et al., 2013). With such a positive psychological state, tourists would more likely revisit a place and have a stronger loyalty to the destination (Chi, 2012). In turn, the destination would benefit economically. Early research on place attachment has highlighted place dependence and place identity as the key dimensions for evaluating place attachment (Williams et al., 1989, 2003).

Place dependence is described as the extent to which a place satisfies an individual's functional needs, whereas place identity is a personal connection to a physical setting. It can also symbolise how an individual's identity is related to a place (Williams et al., 1989; Morgan, 2009; Yuksel et al., 2010; Budruk et al., 2013). The human-place bond is associated with the individual's emotional response to a place, but emotional bonding is commonly treated as an intangible aspect of place identity. Emotions strongly influence human reactions and are perceived to be a more accurate representative of an individual's future behaviour (Brocato, 2006; Halpenny, 2006; Loureiro, 2014). Emotion is different from place identity; the latter is closely referred to the sense of belonging to a place (Shamai, 1991). Considering this situation, the third dimension, place affect, which measures tourists' affective attachment and emotional bonding to a place, must be treated separately (Brocato, 2006; Halpenny, 2006; Tsai, 2012).

Additionally, with the increasing dependence on technology to perform daily activities nowadays, tourists tend to demand both emotional- and technology-enhanced experiences, interpretation services notwithstanding. Tourists now have more sophisticated travel demands and decision-making approaches. Hence, tourists that use technological platforms throughout their travel significantly satisfy desire a technology-enhanced experience (Buhalis et al., 2011; Neuhofer et al., 2013, 2014; Zhang et al., 2018). Considering this evolution, the current conventional method of interpretation, such as printed brochures, tour guides, and interpretive boards, might no longer be significant to instil excitement and uplift tourist experience, as these methods have limited technological engagement.

Although tour guides could provide effective storytelling for tourists to experience in-depth engagement at a destination, the role of the tour guide as the main interpretive medium of a destination has now become less relevant, especially for the new generation of tourists. 'Prosumers', as referred by Luiz et al., (2013), are the growing new market that tend to have more power and control over the industry. This group has driven the take up of technology-enabled platforms, thus triggering more sophisticated and complex demand. This group is technologically literate and often referred as free independent traveller (FIT). They are also sophisticated frequent

travellers that expect a certain experience tailored to their needs; they do not care for experiences that seem to offer a perceived need (Asia Travel Leaders Summit, 2014; Santos et al., 2016). This new market, which Gretzel and Jamal (2009) termed the ‘creative tourist class’, actively and creatively engage with technology to gain high-value experience. All of these characteristics of the new tourists market pointing out to the tech-savvy behaviour of Millennial generation upon travelling.

With the high level of tourist expectation regarding technology-enhanced experience, it is more difficult to satisfy them with conventional interpretation systems, since these systems are less interactive and less dynamic. Ideal tourism interpretation should consist of various media. It is important to provide variations in interpretation to ensure tourist satisfaction with the experience and to prevent boredom (Moscardo, 1998; Hwang et al., 2005; Poria et al., 2009). Technology-based virtual guides and interpretation could significantly improve current interpretation systems at destinations and increase the competitiveness of the interpretation service (Cheng, 2006; Neuhofer et al., 2014; Md Noor et al., 2015). It is crucial to satisfy tourist demand, so now more than ever, it has become important for interpretation systems to adopt virtual interpretation to effectively meet the emotional- and technology-enhanced experience that tourists demand in this age.

Given the above backdrop, numerous studies have attempted to evaluate the effectiveness of technological guiding and interpretation systems and their impact on tourist psychological experience from the cognitive (Cheng, 2006; Tussyadiah et al., 2011) and behavioural dimensions (Tubb, 2003; Chen et al., 2014). Despite the close interrelation between cognitive, affective, and behavioural experience in forming a complete psychological experience process, limited works however, have evaluated psychological experience from the perspective of affective experience, such as emotional response, attitude, or attachment, whereas this determinant is more accurate to gauge tourist experience satisfaction and destination loyalty (Hwang et al., 2005; Lee, 2009; Yuksel et al., 2010). Therefore, there is a need to establish a more holistic psychological process to capture the affective experience of this new tourist market as a result of technology engagement and subsequently its impact on destination experience.

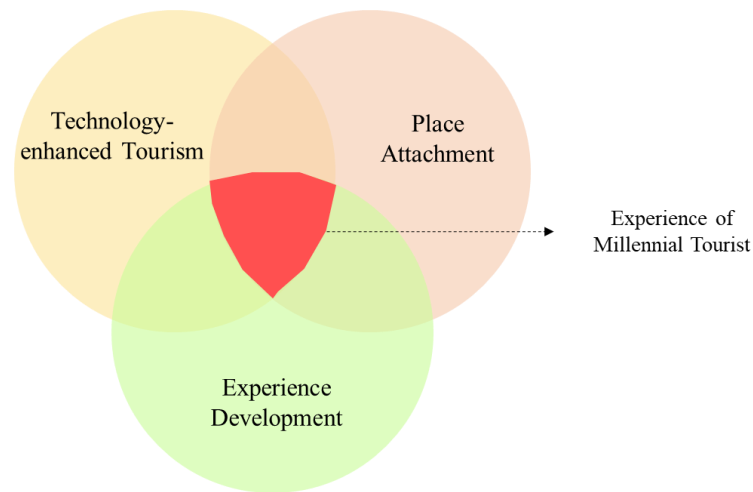


Figure 1.1 Theoretical research framework

1.4 Research Objectives

This research focuses on capturing the psychological experience of Millennial tourists at a destination resulting from mobile engagement. It also aims to identify the influence of the psychological experience gained from mobile engagement on place attachment and destination loyalty. To this end, the specific objectives of this research are listed below:

1. To examine the psychological experience of Millennial tourists resulting from mobile engagement.
2. To assess the influence of psychological experience on Millennial tourists' place attachment and destination loyalty.
3. To explore Millennial tourists' perception on mobile utilisation as a potential destination interpretation and guiding system.

1.5 Research Questions and Research Hypotheses

Based on the research objectives, several research questions and hypotheses were developed. The research questions and hypotheses are listed below and summarised in Table 1.1:

1. **RQ 1:** How do Millennial tourists perceive mobile technological engagement during travel?
2. **RQ 2:** To what extent does mobile touchpoint engagement affect Millennial tourists' on-site psychological experience?
 - **RH 1:** There are significant differences in the psychological experience of Millennial tourists interacting and engaging with different mobile touchpoints on-site.
 - **RH 2:** Millennial tourists with more mobile touchpoint engagements on-site have better psychological experience.
3. **RQ 3:** To what extent does the Millennial tourist's psychological experience relate to place attachment and destination loyalty?
 - **RH 3:** Psychological experience has a different impact on place attachment and destination loyalty.
4. **RQ 4:** How do Millennial tourists perceive the role of mobile as a potential destination guider and interpreter?

Table 1.1 Research objectives, questions, and hypotheses

RESEARCH OBJECTIVE	RESEARCH QUESTION	RESEARCH HYPOTHESIS
<p>RO1: To examine the psychological experience of Millennial tourists resulting from mobile engagement</p>	<p>RQ1: How do Millennial tourists perceive mobile technological engagement during travel?</p>	n/a
	<p>RQ2: To what extent does mobile touchpoint engagement affect millennial tourists' on-site psychological experience?</p>	<p>RH1: There are significant differences in the psychological experience of millennial tourists interacting and engaging with different mobile touchpoints on-site.</p> <p>RH1a: There are significant differences in the cognitive experience of millennial tourists interacting with different mobile touchpoint engagements on-site.</p> <p>RH1b: There are significant differences in the affective experience of millennial tourists interacting with different mobile touchpoint engagements on-site.</p>
		<p>RH2: Millennial tourists that engage with more mobile touchpoints on-site have better psychological experience.</p>
<p>RO2: To assess the influence of psychological experience on Millennial tourists' place attachment and destination loyalty</p>	<p>RQ3: To what extent does millennial tourists' psychological experience relate to place attachment and destination loyalty?</p>	<p>RH3: Psychological experience has a different impact on place attachment and destination loyalty.</p>
<p>RO3: To explore Millennial tourists' perception on mobile utilisation as a potential destination interpretation and guiding system</p>	<p>RQ4: How do Millennial tourists perceive the role of mobile as a potential destination guider and interpreter?</p>	n/a

1.6 Scope of Research

This study aims to discover the potential of mobile engagement in adding value to tourist travel experience, specifically from an emotional aspect. This research is contextually related to the field of psychology. In other words, it looks at the formation of experience, namely, cognitive experience, affective experience, and behavioural experience. The current scenario of tourists' heavy reliance on mobile devices during travel has transformed the entire tourism experience, which, in turn, has resulted in a

new continuum of technology-mediated experience (Neuhofer et al., 2012). This evolution is seen to substantially impact the behaviour of tourists nowadays, indicating the changes in experiential value as perceived by the tourists. As experience formation is psychological in nature, it is important to explore the emotional perspective of tourist experience to understand the extent to which on-site mobile engagement influences experience formation and place bonding. This understanding is substantial to better plan and develop a destination. In turn, the destination will enjoy enhanced competitiveness based on the differentiation of experiential values offered.

This study aims to capture the psychological experience of Millennial tourists. This group of tourists is considered the new social class. They are also the economic drivers of today and the future. Millennials are known as digital natives and are highly technologically empowered. Millennials are generally the generation born between 1980 and 2000, the period in which technology massively permeated the global market (Huang et al., 2010; Veiga et al., 2017). Hence, this group outpaces the other generations in terms of adopting technology (Veiga et al., 2017). Their bold nature and desire for autonomy over experience (Asia Travel Leaders Summit, 2014) have caused changes to the entire notion of tourism experience. With the advent of technology, these new tourists are now expecting authentic and customised experiences and more niche-interest activities (Luiz et al., 2013). This tourist market presents a real opportunity for destinations to improve their competitiveness. Hence, it is almost compulsory for destinations to consider this megatrend, as the tourism industry has to respect to the changing needs of its market (Loda et al., 2010; Luiz et al., 2013). Millennials desire a distinctive travel experience. They are the new social class that has reformed the society into a new economy. They demand conventional methods to adjust accordingly to their creative needs and values (Gretzel et al., 2009). Hence, by specifically directing the research focus on the Millennial generation, an in-depth understanding of the current tourist market can be obtained.

Considering the Millennials' addiction to connection, urban destinations are seen as a suitable place to conduct this research. This creative class engages in travel for work and pleasure, so a vibrant urban destination will tend to attract them the most as there are many related resources for this group to immerse in creative activities

(Pappalepore et al., 2014). Although urban destinations are a place of everyday life of local citizens, it still provides an alternative atmosphere, rich in culture, that allows tourists to engage in creative experiences (European Commission, 2000; Pappalepore et al., 2014; Marques et al., 2017). Creative areas are not about the location, but rather the offerings that lead to authentic experiences. This experience is specific to the needs of the tourists and is not a perceived need (Luiz et al., 2013). Hence, the urban tourism destination is best suited to capture the behaviour of this creative tourist class.

1.7 Significance of Research

The significance of this research is two pronged: first, it theoretically contributes to the existing body of knowledge; secondly, it practically contributes to destination management organisations (DMOs) to improve tourism destinations, specifically urban tourism destinations. Theoretically, this research contributes better empirical understanding of tourist psychological experience resulting from engagement with a mobile travel guide (MTG). A comprehensive understanding of the phenomenon of tourist psychological experience is crucial for planning and developing destination promotional strategies. Hence, insight into the psychological impact of mobile engagement on tourist experience could shed some light on the understanding of tourist experience evolution. This knowledge can further help expand the theoretical concept of tourist experience from the perspective of mobile utilisation.

Practically, this research helps DMOs improve destination information systems. This research explored tourist on-site information needs and the purpose of mobile utilisation at each destination. It also clarified the influence of mobile engagement on the cognitive and affective aspects of experience. Therefore, the findings provide a better understanding of the on-site mobile engagement that tourists desire. This information is essential for planning destination information and interpretation systems. In turn, tourists will have more meaningful destination consumption. Hence, DMOs would benefit from the findings the most, especially for developing an MTG, such as a destination-based mobile travel application. Such an

application would be extremely useful to improve tourist destination interaction and enhance affective experience.

Lastly, based on the fundamental understanding of the tourists' psychological experience, this research will provide crucial insight into the improvements required for destination marketing and promotional strategies. Despite an in-depth understanding of tourists' mobile-mediated psychological experience, this research aims to better attract and influence existing and potential tourists to visit a place in the future to increase local economic benefit. By optimising the findings on tourists' online travel experience and sharing behaviour, DMOs can benefit from this research and improve destination marketing and promotional strategies. The existing trend of sharing travel experience highlights the prospects of content marketing by prioritizing user-generated content on social media and other online platforms. In this way, destination marketing and promotional strategies can be improved in line with the needs and desires of the current tourist market, i.e., the Millennials.

1.8 Structure of Thesis

This thesis is divided into five main chapters: Introduction, Literature Review, Methodology, Analysis and Findings, and Conclusion.

1) Chapter 1: Introduction

This chapter presents the fundamental elements of this thesis, i.e., the research structure and direction. The research background is elaborated at the start of this chapter to understand the existing scenario. Then, the research problem is elaborated. This chapter then provides the research background related to tourist experience formation followed by changes in tourism demand and the behaviour of the current tourist market. This chapter continues with a statement of the research problem and research gap, and then further specifies the research direction together with the research objectives, research questions, and research scope. The research significance is elaborated at the end to firmly grasp the contribution of this research.

2) Chapter 2: Literature review

This chapter gives an in-depth discussion of the main topics related to the subject and scope of the current research. The review of the literature starts with a discussion of the structure of tourist experience and the psychological nature of experience formation. The current demand structure, as well as the Millennial tourist market, are then discussed to understand the behavioural and psychological aspects of this market in regard to experience formation. Then, the discussion continues with an understanding of the emergence of mobile technology, its implications for the tourist experience structure and the possibilities of improving travel satisfaction via destination bonding. The interrelation between travel-related mobile utilisation and Millennial tourist experience is then debated to better understand the impact of mobile-mediated travel experience in creating place bonding to gauge future possibilities of repeat visitation. The chapter summarises by illustrating the research conceptual framework constructed in reference to the reviewed literature.

3) Chapter 3: Methodology

This chapter outlines the research methodology applied in this study, including the research design, the study area, the method of data collection, and the data analysis. First, the research approach and paradigm are identified, followed by the data collection and sampling strategy. The outcome of the pilot survey is reported to further improve the data collection strategy. Next, non-statistical and statistical data analysis methods are elaborated and discussed at the end of the chapter. This phase is discussed in answer to the research objectives and research questions.

4) Chapter 4 and 5: Analyses and finding

This chapter is divided into two: the first analyses the tourist background and travel consumption, while the second analyses tourist psychological responses. The data analyses were done on the sample collected, and the results are presented visually in the form of graphs, tables, and figures. The analyses outputs are described and elaborated. Then, the findings on the interrelation between the three main variables—tourist mobile engagement, psychological experience, and place bonding—are explained. The research findings are further correlated to the literature and past

research works. The findings and novelty of study are described in reference to the direction of research per the research objectives, research questions, and research hypotheses.

5) Chapter 6: Conclusion

In the final chapter, a summary of the research findings is given based on the research objectives, research questions, and research hypotheses. The structure of the Millennial tourists' mobile-mediated experience is illustrated and discussed as a continuation of the research findings. At the end of the chapter, the theoretical, methodological, and practical implications of the research, as well as the research limitations, are elaborated.

1.9 Chapter Summary

This chapter focused on the research background and the research direction. It started by highlighting the phenomenology of tourist experience and its evolution based on industrial digitalisation. The discussion continued with the elaboration of the research problem, namely the changing tourism market and the poor bonding between tourists and destinations due to digital engagement. Then, the research gap regarding technology-related travel experience was identified from the existing body of knowledge. A lack of research was found on the psychological and emotional perspective of tourist experience, especially its impact on travel-related technological engagement. Therefore, the research objectives and research questions were formulated to capture the relationship between tourist-mediated destination bonding. The research scope covers the existing tourist market, namely the Millennial generation. This group was targeted due to their known digital native tech-savvy traits. At the end of the chapter, the research significance was elaborated to clearly delineate the justification for this research.

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