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Experience co-creation of city visitors from the perspective of technological engagement

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Abstract. The population today have immersed in mobile technology as ICTs is seen as capable in supplementing human social and psychological experience. Similarly, city visitors often perceived mobile technology as an inevitable partner in facilitating space consumption of an unfamiliar environment. Especially in urban setting, great incursion of technology in mediating human-destination encounter had manipulated visitor's cognitive conceptualisation process, and arguably critical for destination management and liveable city making. Due to high dependency on mobile assistance among current visitors market, cognitive stimulation from tech-human engagement was seen as influential force in psychologically motivating travel satisfaction and destination loyalty. Therefore, perspective on how visitor's cognitive experience affected by mobile engagement is critical in understanding the continuum of technology-mediated experience. The study was executed at Kuala Lumpur City Centre and the population was confined to millennial generation due to visibility as current tourism market. On-going survey of 235 respondents was conducted on 56 identified main attractions within the city centre. Preliminary findings reveal respondents' desire towards deviation of smartphone engagement from daily uses during travel, as well as significant of interactive and value instilling engagement to uplift experience. This paper concluded with indication of research limitations and possible future research in this area.

1. Introduction

Without a doubt, mobile technologies have sparked an evolution in every angle of the tourism industry. The influence of mobile technologies had been so influential; it has gone beyond the facilitation of travel planning and movement. Rapid progression of mobile technologies, prominently through the emergence of the smartphone, make a turning point in the process of consumer communication and engagement, therefore transforming the way traveller consuming the entire travel process [1–3]. Ubiquity nature of online information sources [4] validates users reliance and trust on mobile technologies, feeding the constant demand for fingertips information. Offering the possibility of personalisation and creative consumption, mobile technologies engagement often results in

emotional bond between consumer and the platform [5], simultaneously serving the possibilities for destination experience value co-creation [1].

Technological adoption in tourism has significantly impacted the industry and studies on its impact had been widely done in various areas. Wang et al [2] categorised recent researches on smartphone interaction from the perspective of travel and tourism had concentrated in three main streams: design aspects of mobile guide related services [4, 6–8], adoption of mobile information services [9–11], and impact of mobile technology on tourist experience [2, 12–15]. As technological adoption in tourism industry become more stabilised, many past researches started to concentrate on the third research stream in understanding the social influence of mobile technology adoption on the traveller. Existing researches highlighting the ability of smartphone in being travel experience enhancer [6, 16–19], yet the process on how the experience can be significantly enhanced from psychological perspective had been minimally discussed [20]. Besides, despite being the trendsetters [21], understanding on Millennials expectation on onsite technological engagement for travel purposes was also least explored, as presents studies mainly concentrated on Millennials travel experience demand [22–24].

Based on this consideration, the present paper is directed to understand the psychological perspective of city traveller on-site smartphone utilisation, as well as its impact of smartphone engagement towards destination consumption behaviour, in understanding the process of consumers travels experience formation. This is to be executed through testing of the relationship between on-site mobile consumption and changes of experiences measured. By testifying the relationship, this on-going research paper is expected to contribute with the understanding of current demand and actual expectation of millennials travellers on the adaptation of technology at the destination, in developing illustration on the general structure of millennials traveller psychological process of on-site smartphone engagement.

2. Literature review

2.1. City visitor mobile technological adoption

City visitor is often susceptible to the issue of time constraint and spatial consciousness. Differing from other categories of destination, urban cities tourism are much complex in the sense of its hectic and compact spatial setting, a mixture of experiences offered, as well as the richness of information [25]. Mobile technologies, therefore, come into the picture in facilitating city visitors managing time-space constraint concurrently organising information overload [26]. As mobile technological advancement continues, users' dependency on mobile platform multiplied with the perception of mobile as an essential device in complementing daily task as well as for travel purposes. This scenario is highly visible with the rapid progression of smartphone evolution. Ubiquity nature of mobile technologies evolving traveller to be more independent and sophisticated with the belief of self-efficacy empowered by the past experience and knowledge gained mostly from the virtual information source [4, 27]. Therefore, traveller adoption of mobile technologies during travel does not only assist travel activities but rather improve users in self-empowerment.

Digital evolution evokes changes in demand and supply pattern within the tourism industry. Being the current driver of the consumer market, Milennials digitalisation influences the demand structure of global industry [28]. Unlike the earlier generation, natively digital Milennials traveller out-perform the others in the creative practice of mobile technology to multitask primarily in creating valuable tourism experience [29-30]. Their passionate feeling towards digital innovativeness opening the potential of meaningful interaction with destination giving them a sense of satisfaction, which unattainable through the sole encounter of the physical environment [1, 5]. While experience formation is highly psychological, the experience co-creation possibilities through mobile engagement are seen as capable in igniting destination emotional attachment. Being mediator for the visitor-destination encounter, cognitive stimulation gained from digital engagement may have a possible influence on users thinking process in making meaning of their space [31-32]. These scenarios, therefore, visualised the uniqueness of travellers' mobile engagement in being the enhancer to travel experience formation.

2.2. Value co-creation through technological experience
Adoption of mobile technologies on-site by travellers is developing an expectation to gain higher value of experience throughout destination consumption. Smartphone particularly is the mobile platform closest to the traveller and often engaged as a mediator for destination encounter. Knowing the possibilities of travel experience co-creation through mobile engagement, the traveller often co-produce and co-design their interaction with the destination through user-generated content [5, 33]. On-site photo-taking, experience sharing, information search etc. are a part of travel experiences that commonly co-constructed by traveller upon consuming the destination [34], and each of them is constructed differently depending on individual travellers' interpretation of their space.

Technological empowerment of mobile users igniting their digital innovativeness and their active involvement in experience co-creation had evolved the cognitive construct of experience [5, 35]. The digitalisation of Milennials creating an invisible standard; in which experiences enhancement is now beyond the fulfilment of expectation, instead constitutes the intensity of technological innovation and experience co-creation [1, 17, 34, 36–38]. Evolution of traveller destination engagement is no more limited to physical encounter per se, yet constitute technological engagement [37]. The development of destination interpretation system is, therefore, to embrace technological adoption to encourage meaningful destination encounter, without jeopardising traveller enjoyment.

2.3. The theory of exploratory purchasing behaviour and expectancy disconfirmation model in traveller technological engagement
As to how milennials innovativeness towards technological engagement is known, the innovative behaviour originated from their curiosity in understanding a subject. Milennials's urge to satisfy curiosity and constant desire towards processing information [39] leads to intensive on-site use of mobile devices for the purpose of self-stimulation. This scenario is grounded by the theory of exploratory purchasing behaviour, where milennials desire and eagerness towards consuming destination is reflected by their innovative behaviour and intensiveness of mobile utilisation in understanding the destination prior to its actual consumption. Founded by Baumgartner and Steenkamp [40], the theory of exploratory purchasing behaviour explains a specific behaviour when human engage in activities that are not significant yet intrinsically stimulating, leading towards motivation and excitement to further explore through innovative behaviour.

Grounded by curiosity and motivation towards effective destination encounter, milennials innovativeness in technological engagement is visualised through intensive use of the mobile device in obtaining information. Mobile devices engaged by Milennials acted as a mediator for visitor-destination engagement. Through technological engagement, Milennials obtained cognitive stimulation from human-computer interaction and excitement of dynamic digital engagement [41]. As described in expectancy disconfirmation model [42-43], consumer decision to purchase is made based on motivation and expectation development, as elaborated in exploratory purchasing behaviour theory, followed by perception formation based on consumption experience, which is verified by 'pre-experience standard' of expectation. Perception confirmation or disconfirmation of expectation would then determine consumer satisfaction level towards purchasing experience [43]. Expectancy disconfirmation model would explain the cognitive process of traveller expectation towards the travel services that to be consumed and perception on the impact of the consumption towards experience [44-45], as for this study expectation and perception towards the impact of technological engagement would be evaluated. Correlating back to the theory of exploratory purchasing behaviour, expectancy disconfirmation model acts as the theory extension in explaining Milennials traveller innovative behaviour towards mobile engagement on-site. It also explains the consequences towards cognitive implication of travel experience and satisfaction. Hence, adopting the theory of exploratory purchasing behaviour and expectancy disconfirmation model in the existing understanding of Milennials traveller technological engagement, the diagram below outlines the flow of interrelation between mediator stimulation, expectation, and perception development for this study.
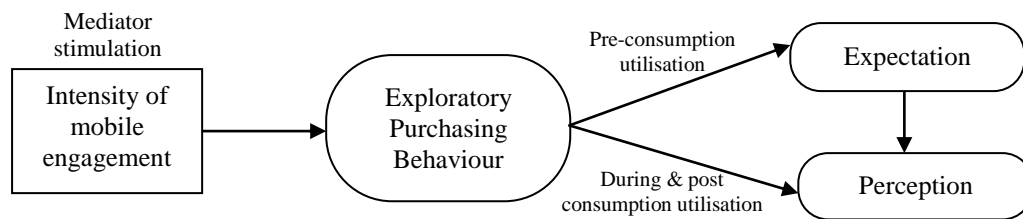
Figure 1. Relationship between mobile stimulation, expectation and perception of travel experience.

3. Method

This research bound to understand the cognitive perspective of travellers technology-mediated experience, quantitative method is, therefore, best applied to verify the existing pattern of on-site mobile utilisation that affects cognitive experience development. A self-administered questionnaire survey was executed among inbound traveller in Kuala Lumpur City Centre. As the capital city of Malaysia, Kuala Lumpur defined as a destination with well-founded mobile network and infrastructures, hence best fit for technology adoption related research. Milennials (born between 1980 and 2000) being the cutting-edge generation in digitalisation [3] was set out as the research subject and selected through purposive sampling method. A simultaneous online and face-to-face survey was executed to expedite the data collection process. Priority was given to online method by reason of accelerating questionnaire distribution process within shorter timeframe [46].

'Facebook' and 'Instagram' are among the top social network services [47], was employed as a platform for survey distribution. Since travel photos and sharing are most common in both of these platforms [21], the digital information was therefore optimised as a part of the filtering process for purposive sampling. Adapted from Tamari [48], the in-bound Milennials travellers were screened in two ways: firstly through destination hashtag '#' metadata tagging, specifically '#kualalumpur'; secondly 'location check-in' of Kuala Lumpur. 'Facebook' and 'Instagram' accounts with either of these posting were identified and further filtered to assure the fulfilment of two (2) criteria, Milennials age group, and international in-bound traveller. A total of 249 valid responses were collected (response rate of 29%), from which a sample of 235 corresponding to international in-bound Milennials age participants was used.

The questionnaire was arranged in two sections. The first section deals with the participants' sociodemographic and travel behaviour information. Section two covering (1) overall expectation on importance of mobile engagement on travel experience, measured using five-point Likert scale; (2) on-site use of smartphone, tested through nominal choice of 'yes/ no'; and (3) perceived influence of mobile engagement on experience, through five-point Likert scale of '1-Very negative' and '5-Very positive' [2, 12, 17, 54]. Part (1) and (2) in this section was designed to evaluate mobile engagement for 56 places of interest (POI) within the boundary of Kuala Lumpur City Centre to further understand travellers actual mobile engagement [55]. POIs were shortlisted from KL Tourist Guide Book [49] and recommended attractions by *tripadvisor.com* website.

4. Result

4.1. Respondents' profile and travel behaviour

Gender distribution of respondents was higher on female (60.4%) compare to male (39.6%) (refer to Table 1). Respondents are mostly early Millennials, aged 19 to 29 (65.6%). Majority of them comes from Southeast Asia (32.3%) and European region (32.3%), followed by the Americas (17%), while the least is from Oceania (2.6%). The travel behaviour characteristics display high number of first-time visitors (71.1%) among the respondents, with only less than two percent are group travellers. The

remaining are free independent travellers (FIT), constitute those that travelling with spouse or partner (34%), friends (26.8%), alone (23.8%), and family (14%).

Table 1. Respondents' demography and travel characteristics.

DEMOGRAPHIC	N=235	(%)
GENDER		
Female	142	60.4
Male	93	39.6
Total		100 %
AGE GROUP		
19-24	57	24.3
25-29	97	41.3
30-34	48	20.4
35-40	33	14.0
Total		100 %
REGION		
Southeast Asia	76	32.3
Europe	76	32.3
America	40	17.0
East & South Asia	24	10.2
Middle East & Africa	13	5.5
Oceania	6	2.6
Total		100 %
TRAVEL BEHAVIOUR	N=235	(%)
VISITATION LEVEL		
First-time	167	71.1
Repeat	68	28.9
Total		100 %
TRAVEL COMPANION		
Partner/ Spouse	80	34.0
Friends	63	26.8
Alone	56	23.8
Family	33	14.0
Unknown group travel	3	1.3
Total		100 %

4.2. Smartphone utilisation

The 56 POIs assessed were categorised and represented in nine categories of attraction (refer Table 2). 'Landmark' (226), 'shopping' (201), and 'parks and monuments' (186) were the three categories of attraction that mostly visited by the respondents. While the least visited was 'hall and event' with only 48 visitors in the category. Regarding on-site smartphones utilisation pattern, there were seven (7) uses being evaluated at 56 attractions within Kuala Lumpur City Centre. The uses included 'navigation', 'photo-taking', 'explore places', 'information search', 'experience sharing', 'travel planning', and 'mCommerce'. Smartphone utilisation was slightly varied across different categories of attraction, yet still sharing a similar pattern. The use of "photo-taking" was the highest across all categories, ranging from 46.3 percent in 'hall and event' related attractions, to 83.8 percent of utilisation in 'parks and monuments'. This then followed by the use of "navigation" and "information search" ranging 35.5 to 70.1 percent and 43.8 to 64.6 percent respectively. "mCommerce" was least used on-site at all categories of attraction. Smartphone was mostly used on-site for photo taking purposes, in which this seen as the simplest way for respondents to interact with destination by documenting travel memories. While some of the travel management related uses; such as 'navigation', 'and 'information search'; were also highly operated during the encounter with the destination, respondents voluntary use of smartphone in taking photos representing their state of mind and initial interest in destination engagement.

4.3. Expectation and perception on the influence of mobile engagement on experience

Respondents were asked to evaluate their overall expectation on the impact of mobile engagement on the travel experience. Descriptive analysis indicated 4.62 mean value for overall expectation, which

illustrated respondents' high expectation on dependency towards the utilisation of mobile devices in enhancing the travel experience. For the analysis of respondents' perception, the mean value for perceived influence of experience in each attraction is classified into three categories of mean range, positive, moderate, and negative. As in Table 3, the perceived influence of experience for all categories of attractions are generally under the classification of 'positive' (mean value 3.68 and above), except for 'hall and event' that fall under 'moderate' (mean value 2.34 to 3.67). Smartphone engagement gives the highest influence at 'landmarks' with the average mean value of 4.17 out of five (5) full score. This then followed by 'place of worship' (3.99), 'themed attractions' (3.95), and 'parks and monuments' (3.91). 'Hall and event' have the least influence on experience due to limited activities and experiences offered in this category of attraction that commonly non-recreational related, such as conferences and art performance. In overall, the outcome suggested respondents on-site smartphone engagement have somehow gave significant positive impact in uplifting the overall travel experience for all categories of attraction visited.

Table 2. On-site use of smartphones based on the category of attractions.

Category of Attractions	No. of visitor (N)	On-site Use of Smartphone (%)						
		Navigation	Photo Taking	Explore Places	Information search	Experience Sharing	Travel Planning	mCommerce
Landmarks	226	63.3	82.3	33.2	55.3	55.3	31.9	23.9
Shopping	201	60.2	60.2	36.3	48.3	39.8	23.9	19.4
Parks & Monuments	186	67.0	83.8	32.4	54.6	55.7	29.2	20.0
Market	164	65.9	76.2	39.0	64.6	51.2	32.3	19.5
Culture and Historical	147	59.9	81.6	30.6	58.5	54.4	27.9	17.0
Place of Worship	137	70.1	81.0	33.6	64.2	48.9	28.5	19.0
Museum & Gallery	117	57.3	77.8	37.6	59.0	44.4	29.1	14.5
Themed Attractions	58	48.3	72.4	29.3	58.6	37.9	32.8	15.5
Hall & Event	48	37.5	56.3	22.9	43.8	35.4	14.6	4.2

Each cell in 'On-site Use of Smartphone' have a percentage of 100%.

Highest percentage of use.

Lowest percentage of use.

The assessment of smartphone influence on each attraction visualised that all of the POIs are in the classification of 'positive' and 'moderate', except for 'Sungei Wang Plaza' under the category of 'shopping' with the mean of 2.23 (negative). 33 out of the total 56 POIs assessed are classified as 'positive', while others are 'moderate'. Aquaria KLCC, Chan See Shu Yuen Temple, Petronas Twin Tower, Jalan Alor, Thean Hou Temple, Kuala Lumpur Tower, Masjid Jamek, Sri Maha Mariamman Temple, Central Market, and Perdana Botanical Gardens are the POIs that have the highest influence (average mean value above 4) regardless of the number of visitors. These POIs are under the categories of 'landmark', 'place of worship', 'themed attractions', 'parks and monuments', and 'market'. Although some of these POIs are less visited by the respondents (example: Chan See Shu Yuen Temple = 9, Perdana Botanical Gardens = 42), yet the influence of smartphone engagement on destination encounter are substantial in igniting positive experience.

4.4. Experience enhancement through smartphone engagement

The analysis of relationship between smartphone uses and perception development was done by further dividing the types of smartphone uses into two distinctive categories based on the descriptive analysis in Table 2, which were primary uses (photo-taking, navigation, information search) and secondary uses (experience sharing, travel planning, explore places, mCommerce). Person correlation was executed between the two categories and their perceived influence on respondents' experience.

Table 3. Categorisation of mean values for perceived influence of mobile engagement on experience.

Mean value (expectation on important of smartphone engagement during travel): **4.62**						
CATEGORIES OF ATTRACTIONS			TOURISM ATTRACTIONS (POIs)			
N*	Mean perceived influence on experience*	Mean Category		N**	Mean perceived influence on experience**	Mean Category
Landmarks 226	4.17	Positive	Petronas Twin Tower	220	4.20	Positive
			Kuala Lumpur Tower	129	4.04	Positive
Place of Worship 137	3.99	Positive	Chan See Shu Yuen Temple	9	4.22	Positive
			Thean Hou Temple	57	4.07	Positive
			Masjid Jamek	78	4.04	Positive
			Sri Maha Mariamman Temple	48	4.02	Positive
			National Mosque	61	3.82	Positive
			Sin Sze Si Ya Temple	24	3.67	Moderate
			Cathedral of St. Mary The Virgin	12	3.67	Moderate
			St John's Cathedral	22	3.64	Moderate
Themed Attraction 58	3.95	Positive	Aquaria KLCC	46	4.28	Positive
			National Planetarium	21	3.76	Positive
			Petrosains Science Discovery Centre	24	3.75	Positive
Park & Monument 185	3.91	Positive	Perdana Botanical Gardens	42	4.00	Positive
			Kuala Lumpur Forest Eco Park	80	3.95	Positive
			KLCC Park	150	3.89	Positive
			National Monument	24	3.88	Positive
			River of Life	54	3.87	Positive
			Kuala Lumpur Butterfly Park	24	3.75	Positive
			Kuala Lumpur Bird Park	33	3.64	Moderate
			Heroes' Mausoleum	15	3.27	Moderate
			Asean Sculpture Garden	12	3.17	Moderate
Market 164	3.87	Positive	Jalan Alor	123	4.13	Positive
			Central Market	79	4.01	Positive
			Petaling Street Bazaar	96	3.85	Positive
			Kasturi Walk	72	3.83	Positive
			Kuala Lumpur City Walk	52	3.48	Moderate
			Masjid India/ Jalan TAR	17	3.29	Moderate
Shopping 201	3.74	Positive	Berjaya Times Square Mall	50	3.98	Positive
			Pavilion Kuala Lumpur	99	3.84	Positive
			Suria KLCC	174	3.81	Positive
			Starhill Gallery	39	3.74	Positive
			Fahrenheit 88	33	3.73	Positive
			Lot 10	33	3.55	Moderate
			Low Yat Plaza	24	3.21	Moderate
			Sungei Wang Plaza	35	2.23	Negative
Culture and Historical 147	3.74	Positive	Sultan Abdul Samad Building	100	3.97	Positive
			Dataran Merdeka	67	3.91	Positive
			Brick Field	40	3.80	Positive
			Royal Selangor Club	15	3.73	Positive
			Kuala Lumpur Railway Station	32	3.53	Moderate
			Rumah Penghulu Abu Seman	22	3.50	Moderate
			Merdeka Stadium	10	3.10	Moderate
			Kampung Baru	9	2.78	Moderate
Museum & Gallery 117	3.74	Positive	National Textile Museum	55	3.84	Positive
			Kuala Lumpur City Gallery	73	3.79	Positive
			National Museum	28	3.79	Positive
			Islamic Arts Museum Malaysia	22	3.68	Positive
			Kuala Lumpur Craft Cultural Complex	25	3.64	Moderate
			PETRONAS Gallery	47	3.51	Moderate
			Royal Malaysian Police Museum	10	3.30	Moderate
			Bank Negara Museum & Art Gallery	11	2.64	Moderate
Hall & Event 48	3.41	Moderate	DBKL Theatre	15	3.53	Moderate
			Malaysian Philharmonic Orchestra	27	3.52	Moderate
			Coliseum Cinema	8	3.50	Moderate
			Kuala Lumpur Convention Centre	29	3.41	Moderate

*based on the number of respondents that visited POIs within the category.
**based on the number of respondents that visited each POIs.

The result in Table 4 visualised a stronger relationship between secondary smartphone uses and perceived influence on experience compare to the primary uses. This signified that despite the frequent uses of smartphone for photo taking, navigation, and information search, these uses did not have much impact on experience development, as they were viewed as the basic essential uses of a smartphone. Regardless of minimal engagement of smartphone for secondary uses, these were the uses that distinguish Milennials daily smartphone engagement with travel-related utilisation. This, therefore, explain the stronger influence of secondary smartphone uses on perception development.

Table 4. Pearson correlation between categories of smartphone uses adoption and perceived influence of experience.

Variables: Category of smartphone uses Perceived influence of smartphone engagement on experience	Primary Smartphone Use		Secondary Smartphone Use	
	r	Sig.	r	Sig.
Landmarks	.065	.332	.257**	.000
Shopping	.174*	.016	.222**	.002
Parks & Monuments	.114	.129	.185*	.013
Market	.252**	.002	.261**	.001
Culture and Historical	.182*	.035	.324**	.000
Place of Worship	.212*	.014	.320**	.000
Museum & Gallery	.154	.107	.364**	.000
Themed Attractions	.190	.153	.389**	.003
Hall & Event	.217	.162	.216	.164

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)
r .10 - .29 = weak, .30 - .49 = moderate, .50 – 1.0 = strong

5. Discussion and conclusion

This paper aimed to validate the impact of on-site digital consumption on young travellers' experience. This was executed through the examination of respondents' smartphone utilisation and its influence on experience development. The findings verified digital engagement notable impact on users' interaction with the destination, yet the impact differs across different places visited by travellers, and extensiveness of the impact is connoted by the intensity of smartphone deployment, as well as types of uses engaged on-site.

Firstly, Milennials travellers adopting smartphone during travel for both reasons of destination engagement and travel management. Yet the concentration of deployment is on uses that facilitate in fulfilling two niche purposes, destination mindfulness (ie. navigation, information searching, explore places) and memory retention (ie. photo-taking, experience sharing). Although findings illustrated primary smartphone uses as less significant in perception development, engagement of primary uses signifies destination understanding, and was seen as an initial step to support secondary uses of mindful destination engagement. Travellers interaction with the destination is subjected to their spatial interpretation, and accessibility of required information is crucial in building a connection with the new environment [50]. By being mindful of the space, either through geographical consciousness or understanding of the place, traveller becomes attentive to the environment and leading to cognitive and bodily experience, which is an integral process in stimulating emotional experience [18, 51]. Therefore it is typical for travellers to prioritise on these uses as it feeds traveller desired towards place-making.

Experience, on the other hand, is highly associated with individuals' emotional state of destination encounter and it is an integral part of memory formation [52]. While photo is known as a representation of individuals' memory, it actually depicting users' emotion and cognitive state towards an event [53]. Hence, voluntary photo-taking signifies travellers destination interest and act as 'touch points' for episodic memories of travel experience for future experience sharing [52, 54]. Nevertheless, travellers' motivation in sharing of their travel experience is visualisation of self-efficacy, in which

memorable experience is treated as collectable consumption, and displaying it signify self-worth and accomplishment [21, 55]. Through social sharing, individual feel a sense of ownership towards the experience and believe it as a social influence that worth to be exhibited [21]. With the facilitation of smartphone to achieve those emotional desires, traveller experience is therefore effectively uplifted.

Secondly, further findings from this study visualised varieties of smartphone adoption as an enabler for the intensity of digital influence on experience. However, stronger influence of secondary smartphone uses on perception formation signifies Milennials desire towards smartphone engagement that is deviated from daily routine and more specifically to meet travel needs. As known, Millennials are natively digital, and innovative adaptation of digital uses is a part of their culture. Smartphones are used intensively by this category of population in manifold of the travel process, but their adoption is rather structured on well-defined purposes. Instead of portraying the behaviour of a digital addict, Millennials focus on basic uses that aid in fulfilling intended action than consuming advance technologies that irrelevant in value creation [3]. Likewise, traveller digital consumption is somehow moderate, and for some extent, prefer to be 'disconnected' in certain moments to prevent unwanted digital attention and mindful consumption of actual tourism services [56]. Although basic uses such as information search and navigation are the basis to further understand destination, yet as the world moving into web 4.0, Milennials expecting more consumer-centric functionalities and desired for more interactive and meaningful digital interaction that further adding value to destination experience [11, 17, 34, 57-58].

Thirdly, smartphone engagement enhances user experience development at destination significantly, yet the enhancement grounding on the actual experience felt by traveller. Finding visualised strong influence of smartphone engagement at iconic attractions (Petronas Twin Tower, KL Tower etc.) and places with dominant cultural image (Thean Hou Temple, Masjid Jamek, Jalan Alor etc.). Especially Milennials generation, they are in a constant state of peer comparison, in which the pressure and urge to consume their belief is confirmed by surrounding consumption in being a part of the social class [20-21]. As traveller mostly opts for primary attractions in visiting a destination, their decision making is controlled voluntarily by past experience from their social circle [20]. Though, for some, they have preferences towards conspicuous consumption, in a way that authentic and distinctive experience is preferred, in being acknowledged as influencer and pioneer within the social group [20-21].

The nature of these social comparisons explained the pattern of high number of visitor on selected POIs (such as Petronas Twin Tower and KL Tower) and the state where places with slightly lower number of visitors have higher influence on experience (such as Perdana Botanical Garden, Thean Hou Temple, Sri Maha Mariamman Temple etc.). Despite travellers' physical encounter, the fulfilment of demand towards social comparison nature concurrently dictates the cognitive and emotional state of experience development [20, 54]. Since experience and satisfaction is a process of reaffirming initial expectation [59], a physical encounter is more to verify the cognitive and emotional presumption for the purpose of actual experience development. Therefore, the capacity for experience enhancement from smartphone engagement is simply predetermined from this actual experience within travellers' cognitive mind. Based on the findings and discussion above, the structure of Milennials traveller cognitive experience from on-site smartphone engagement is illustrated in Figure 2.
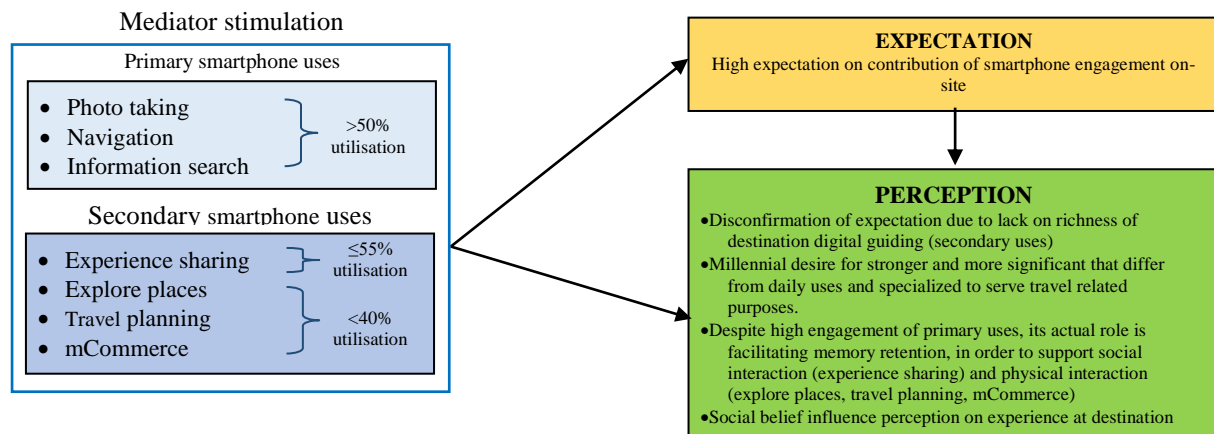
Figure 2. Milennials traveller cognitive experience of on-site smartphone engagement.

6. Limitation and future research

The generalisability of the results from this research is limited in two ways. Firstly, while the term city visitors refer to more than just travellers, yet this study confines its population to international inbound visitors in Kuala Lumpur City only. Therefore, the results from the findings from this study may not be a good representation of city visitors' behaviour. Future research in this area would be recommended to well define the utilisation of 'city visitors' and include all the different categories such as domestic traveller, local residents etc.

Secondly, the on-site use of smartphone was limited to seven basic uses. In understanding users' actual adoption of smartphone, more advance uses and applications, such as Augmented Reality, Video mapping etc., should also be taken into consideration. This may lead to uncovering user level of digitalisation and possibilities of 'calm technology' implementation in a destination.

Acknowledgement

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