

The walking tourist: motivations and walking behaviour

1. Introduction

Most journeys start and end with a walk, and this ubiquitous practice has made it a fundamental activity that is both physical and social. For a person walking in their local neighbourhood for their daily activities or a visitor strolling in the streets of an unknown city or a town, just looking can give a special pleasure, no matter how commonplace the sight might be. Every street has its own unique characteristics to attract people, and it is difficult to forget the temporal art of cities. Whether it is by walking through vibrant marketplaces and neon-lit shopping arcades filled with people, or along a street winding through areas of natural beauty, stimulating experiences can be had by the simple act of walking.

Walkers interact with and experience a multitude of urban spaces (Pinder, 2005). Much can be seen and heard, and views explored in a city. Experiences are seldom felt in isolation, but are instead sensed through time and in relation to the setting. It is the sequence of events that leads to an experience, informed also by the memories that are attached to spaces (Aho, 2001; Gehl, 2017). As Jan Gehl noted, *“There is much more to walking than just walking.”*

Most people walk, even for short distances, and it can be noted that while many people have the choice to travel by other modes of transportation, some do not. By and large, able-bodied people have more transport options than those who are disabled, children, the elderly, and those that are financially less well off. Moreover, walking is part of almost all trips, whether by public transit, car or bike. This is also known as multi-modal walking. So, for an all-inclusive walking experience, the norms for the walking population cannot be defined by those of the most able-bodied people.

Walking is usually recognised as an active transport mode that encourages good public and private health and well-being, contributes to a feeling of community and positive sense of place, and, importantly, in the current concerns of climate and environmental change, can help reduce traffic congestion, and hence, air pollution and emissions, as well as resource depletion (Leyden, 2003; Forsyth & Southworth, 2008; Ewing & Handy, 2009; Gilderbloom, et al., 2015; Hall, et al., 2017).

Tourists are another category of walker that may have different views on what makes a good walking environment. A tourist, according to the World Tourism Organization (2008), is a visitor who has travelled to a destination outside his/her usual environment for business, leisure, or any other personal purpose other than to be employed in the place they visit. Tourism involves travel from a domestic or international location, lasting for a day or longer before leaving. Given that a tourist is generally unfamiliar with the environment they visit, this raises the issue as to whether the built environment affects residents and tourists differently when it comes to walking. Tourists may also walk more than residents, with some studies suggesting that many tourists believe the best way to experience a city is to walk

through it (Thompson, 2003; Mansouri & Ujang, 2016; Hall, et al., 2017). However, only a limited number of studies have specifically examined walkability from a tourist perspective, even though walking is a fundamental, universal and significant activity associated with tourists (Dietvorst, 1995; Thornton, et al., 1997; Shaw, et al., 2000; Davies, 2018; Hall, 2019). As Hall and Ram (2018) have noted, for tourists “*walking around a destination to experience the place is an attraction in its own right*”.

To elucidate this issue, the paper reviews the literature around walking and walkability, with a particular emphasis on studies involving tourists. This research is motivated by a working hypothesis that the walking behaviour of tourists and the factors that enable or constrain their desire to walk are different from those affecting local residents. The paper begins with a discussion on the concept of walkability, including walking as a physical activity, and the role of urban planning and design studies in measuring the effects of the physical environment and people’s psychological attributes on walking behaviour. Finally, we review the literature on walkability and tourists. The current review reveals that there are insufficient studies on tourist walkability to enable full understanding of the tourist walking experience. This paper thus aims to shed light on the gap in knowledge concerning tourist walkability, as the indicators that restrict or encourage movement could be the foundation for design for enhancing the quality of the tourist experience within the built environment.

2. Method

In order to provide an overview of the studies on tourist walkability, a systematic literature review was conducted. A systematic literature review follows a clear and iterative methodology which reduces the risk of bias (Cherrill & Donn, 2020). The process for the systematic literature review was taken from Boland et al. (2013).

2. 1. Literature Search results

A number of databases were chosen (*Table 1*), representing a broad range of research sources. The five combinations of keywords chosen and searched for were as follows:

1. Walkability
2. Walkability + built environment
3. Walkability + built environment + tourist
4. Walkability + built environment + tourist + tourist walking
5. Walkability + built environment + tourist walking experience + public space

Table 1: Number of search results from databases shows the number of results for each set of the keywords in each database. The search results of 4. and 5. in the list above formed the focus of this research.

Table 1: *Number of search results from databases*

Database	1	2	3	4	5
Emerald	195	118	61	47	44
ProQuest	38297	11537	1696	1404	1373
Scopus	2307	1795	4	4	2

PubMed	1250	614	1	1	0
IEEE	16	3	0	0	0
Sage	262356	79964	13064	13064	12080
Springer	2733	2216	245	204	187
Taylor & Francis	484,743	172669	38052	38052	23197
Google Scholar	47200	30800	16900	18100	17800
Web of Science	2,527	1507	7	5	2
ScienceDirect	375498	43552	3363	1520	1622

2. 2. Screening results

Though the search identified many studies on walking and walkability, only a few of these had a main focus on tourist walkability. The large number of results found in the databases using the keywords “Walkability” and “Built environment”, were then further searched for “Tourist” and “Tourist walking experience”. The search results were screened using the following steps:

1. The databases were searched until only one piece of relevant article was collected over two pages of the databases’ search results.
2. The integrated results were then screened by reading the title and abstract for relevance.
3. Only the articles that studied tourist experience and walking behaviour and not any other fields were included.
4. The references of the suitable articles were then checked for finding any other relevant articles, a step that proved to be quite useful.

A total of 16 articles (**Error! Reference source not found.**) were identified for studies on walkability and tourism by using the screening steps above.

Several themes and sub-themes on walkability were also identified, the most cited results of which are shown in **Error! Reference source not found.**. The search result identified theoretical and empirical studies over 60 years as these were found to be the most used and referred to by those studying walking behaviour.

The findings from this systematic literature review are explained below, starting with the most cited studies on walkability and then the lesser number of articles on tourist walkability.

3. Walkability

A key concept related to how people draw motivation to walk is referred to as walkability. Walkability, as mentioned by Abley (2005), is the measure by which to comprehend the overall walking conditions in an area and to understand which built environment feels friendly for the people living, working, shopping, enjoying their leisure or just spending time in it. According to Southworth (2005) a place is walkable when “the built environment supports and encourages walking by providing for pedestrian comfort and safety, connecting people with varied destinations within a reasonable amount of time and effort, and offering visual interest in the journey throughout the network.” It is a combination of quantitative and

qualitative measurements of how enticing or deterring a place is to its pedestrians (Jane's Walk, 2013). It thus seems that the built environment is important when it comes to making walking an enjoyable experience.

In the history of urban planning theories, environments for improving liveability and the importance of walkability have been well acknowledged. Published scholarly work on objective and perceived built environment determinants of walking were reviewed for this paper. Objective measures such as walk score, walkability audits/indices were mainly used in earlier walkability research until the current shift towards subjective measures such as observation, interviews and mixed approaches (Curry, et al., 2009; Leslie, et al., 2005; Millington, et al., 2009; Phillips, et al., 2013). This shift was predominantly in order to account for the varying individual perceptions of built form and community environments that determine walking behaviour (Ewing & Handy, 2009; Phillips, et al., 2004). It had been noted that “perceived” environmental factors are significantly associated with walking at slightly higher rates than “objective” environmental factors (Orstad, et al., 2017; Yang, et al., 2020), as objective tools do not offer much information regarding the contexts of walking paths such as neighbourhood sense of community, social capital, and perceived safety, as well as general feelings experienced during a walk (Lee & Dean, 2018). **Error! Reference source not found.** provides an overview of studies on walkability under its different themes.

Urban planning research on walking dates back to when Lynch & Rivkin (1959) evaluated the streetscape experiences of subjects walking along selected streets. The walkers noted that some physical elements along the route were prominent to their walking experiences, such as buildings, but their strongest impressions were of the spatial qualities of individual or groups of elements, such as the breadth and width of the sidewalk. Other notable works central to supporting the importance of considering the pedestrian and understanding the use of streets were Lynch (1960, 1980), Jacobs (1961), Gehl (1980), Whyte (1980), Appleyard (1987) and Rapport (1987).

Whyte (1980) pointed out people-watching is one of the main activities in public spaces. He suggested that a truly public street would have a healthy relationship between the private or the semi-public life inside its buildings with the public world outside. According to him, the way a pedestrian navigates a space depends on how they understand the space, and a walkable environment would create opportunities for meeting, sharing, and mixing with people. Rapoport (1987), on the other hand, focused more on walking in particular. He remarked that walking is supported by the urban environment and its perceptual characteristics increase the pleasures of walking. Appleyard (1987) in his book, *'Public Streets for Public use'* stated that the policies of public agencies should support the vulnerable or the soft users of the streets – pedestrians, residents, children, old people, and the disabled, as healthy streets are used by different people for a variety of activities. In addition, the well-known works by Jane Jacobs have provided a robust argument for having a lively street. Her term 'eyes-on-streets' has been widely used to demonstrate the importance of making a safe, liveable street that will, at the same time, contribute to enhancing walkability (Jacobs, 1989).

Jan Gehl's works (Gehl, 1980; 2010) are also amongst the most cited works concerning designing for pedestrians. Much like other literature that engages with design at the street and ground level, Gehl also described how urban edges and the lower floors of buildings, which he refers to as soft edges, have a strong influence on the choices people make and their experiences when walking.

De Certeau (1984), Beatley and Manning (1997), Solnit (2001) and Pinder (2005) talk about how *"the act of walking is to the urban systems what the speech is to the language or to the statements they utter"* and that it is the chance to experience events and encounters that produces the excitement of urban life.

In planning literature, according to Cervero & Kockelman (1997) and Jacobs (1993), the most common research areas dealing with aspects of the environment that affect walking behaviour comprise the three "Ds" – density, diversity, and design; acknowledging the spatial qualities first noted by Lynch and Rivkin (1959). Other studies in the field of urban design have been undertaken to understand the design qualities that support pedestrians. These have looked at the central factors of walkability and are mostly based on the results from transportation research.

While 'walkability' studies often measure and analyse walking based on the time spent walking by individuals, some urban design research has dealt with pedestrian movement using an empirical-quantitative approach that often deals primarily with collective patterns of behaviour and their relationship to the physical environment. These attributes have been identified by focusing on different urban and neighbourhood types, and on density (Handy, 1993; Cervero & Kockelman, 1997; Ross, 2000; Boarnet & Crane, 2001; Handy, et al., 2002; Giles-Corti & Donovan, 2003; Frank, et al., 2005; Forsyth & Southworth, 2008). Most studies were motivated to understand the influence of environmental attributes on encouraging physical activities such as walking. Even though studies from the medical sector provide valuable data on effects of the built environment on physical activity, they fail to identify the important design factors behind the human-environment relationship with walking behaviour (Choi, 2012). Choi (2012) and Saelens, et al. (2003b) stated that walking behaviour is invariably an interplay between conscious decisions, habits, social and cultural traditions, and the immediate situation, in addition to the various properties of the built environment. It can be noted that many of these factors were identified earlier by Lynch (1960) and Jacobs (1961), who also found that they should be considered in combination (Mezoued, et al., 2021).

Street network features, such as distance to places of residence and employment (Atash, 1994; Bauman, et al., 1999; Hess, 1997; Saelens, et al., 2003a, 2003b, 2005; Frank, et al., 2005), public transportation stops (King, et al., 2003; Frank, et al., 2005), distance to retail outlets and shopping malls (Handy, 1996; Ball, et al., 2001; Addy, et al., 2004), recreation facilities (Chad, et al., 2005), and parks and open spaces (King, et al., 2003; Foster, et al., 2004; Li, et al., 2005) have all been found to be positively correlated to walking and walkability. The characteristics of sidewalks such as presence, continuity, and quality, and their influence on walkability were also studied. Findings indicate that residents report more walking when they perceive sidewalks to be accessible or of high-quality (Friedman et al. 1994; Brownson et al.,

2001; Humpel et al. 2002; King et al., 2003; Powell, et al., 2003; Boarnet, et al., 2005; Transportation Research Board, 2005; Wang, et al., 2011; Tribby, et al., 2016).

Researchers have discussed the importance of an individual's ability to get to a destination, their perceived safety, variety in land uses, and the comfort and sensory pleasures offered by the walking environment. Findings suggest that for streets, the presence of street furniture, signage and displays, a variety and range of businesses and their uniqueness, and visual

Table 2: Review of literature on walking and walking behaviour

Theme	Sub-theme	Study type	Year	Authors	Findings
Walkability and Health	Influence of environmental attributes on walking	Objective and Subjective	1990-2010s	Mangham et al. (1997), Sallis et al. (1997), Bauman et al. (1999), Booth et al. (2000), Ross et al. (2000), Ball et al. (2001), Berrigan and Troain (2002), Giles-Corti et al. (2002, 2003), Bourdeaud de et al. (2003), Saelens et al. (2003), Owen et al. (2004), Humpel (2004), Addy et al. (2004), Duncan and Mummery (2005)	Geographical proximity, High rise residential areas, land us mix, connectivity and accessibility, aesthetics, safety are important.
Walkability and Urban Planning	How people perceive, feel, use and interact with their surroundings	Theoretical	1960-1990s	Lynch (1960, 1980), Jacobs (1961), Appleyard (1964), Whyte (1980), Gehl (1987), Rapport (1987)	Walkability is supported by the urban environment and its perceptual characteristics.
	The art of walking	Theoretical	1980-2010s	Certeau (1984), Beatley and Manning (1997), Solnit (2001), Pinder (2005)	Walking as a chance for events and encounters, social interactions, and excitement.
	Pedestrian level of Service study	Theoretical	1990-2000s	Sarkar (1993), Khisty (1994), Gallin (2001)	Measurement of streets for pedestrians based on physical features.
	Influence of built environment and perceptions on walking	Objective and Subjective	1960-2010s 1990-2020s	Cullen (1961), Southworth (2005), Forsyth (2005, 2006), Gehl (2011) Handy (1993), Atash (1994), Ewing, R. et al. (1994, 2005, 2006, 2009, 2016), Cervero & Kockelman (1997), Hess (1997), Boarnet and Crane (2001), King et al. (2003), Powell et al. (2003), Foster et al. (2004), Abley (2005), Boarnet, et al. (2005), Frank et al. (2005, 2010), Forsyth (2015), Bopp (2006), Cao et al. (2006), (Reed et al. 2006), Seedat et al. (2006), Spence et al. (2006), Brown et al. (2007), Cerin et al. (2007), Mehta (2008), Greenwald, M. and Boarnet, M. (2002, 2010), Voorhees et al. (2010), Wang (2011), Dongwook (2013), Tribby et al. (2016), Lee et al. (2018), Chan et al. (2021), Mezoued et al. (2021)	Accessibility, feasibility, safety, comfort, pleasurability, interesting scenery, land use mix, presence of stores, street environment.

preferences such as particular building facades have an effect on walkability (Mehta, 2008; Gjerde, 2015). Fears for safety have emerged as one of the most frequent barriers to walking (Jacobs, 1993; Booth, et al., 2000; Foster, et al., 2004; Sharpe, et al., 2004; Li, et al., 2005).

Personal safety fears can be perceived through social incivilities, which comprise questionable-looking individuals or street confrontations, absence of people, physical incivilities such as unattended dogs, vacant lots, and litter, and limited visual surveillance of an area, as well as potential hiding places and blocked escape routes (Jacobs, 1961; Seedat, et al., 2006; Brown, et al., 2007). Social factors such as community-gathering places and the presence of people and activities have been found to have a positive effect on perceived safety (Brown, et al., 2007; Jacobs, 1993; Mehta, 2008; Alfonzo, 2005). These safety concerns also extend to traffic safety, with less walking reported in areas of greater traffic or traffic noise (Carver, et al., 2005; Van Lenthe, et al., 2005).

Comfort when walking, on the other hand, has been associated with higher walking rates (Alfonzo, 2005; Zakaria and Ujang, 2015). People's preferences for spaces in the sun or under shade along a street change with the changing seasons and weather, and areas that people perceived as having more changes in signs and displays were more used for walking (Lynch, 1960; Nasar, 1997; Sarkar, 2002; Mehta, 2008; Manaugh, 2012; Hall & Ram, 2021). Jacobs (1993), Alfonzo (2005), Mehta (2008), and Gehl (2010) posited that the presence of people and activities particularly added to the sensory pleasure found on the street. Even for those who did not intend to spend time in stationary activities, walking along areas with more people and activities where people were lingering, suggesting a lively character, was an attraction. Opportunities to communicate actively and passively with other people were also important criteria in people's decisions to walk. Moreover, researchers have found that the physical environment and psychological experiences were integral parts of a pedestrian event.

Given the numerous studies that have reported a large variety of variables motivating pedestrian choices when making urban trips, relatively few studies have subsequently addressed whether changes to these immediate microfeatures of the physical environment might yield more positive walking experiences and motivate people to engage in more walking. Moreover, most studies have investigated the walking perception of city residents or a specific group or sub-group of people, for example African-Americans (Bopp, et al., 2006).

4. Walkability and Tourism

There are a number of significant differences between resident and tourist walking, and this means that resident walking behaviour cannot be used as a substitute for understanding tourist patterns and behaviours (Ram & Hall, 2018). Contrary to residents, whose travel and walking behaviour is often characterized by constraints in time, frequently taken paths and ample knowledge about the topographical features of the city, tourists are often found to wander about with an exploratory attitude (Gorrini & Bertini, 2018), moving at a lower speed, and consequently making distance and streetscape character more relevant (Vojnovic, 2006). During the last few decades there has been an increase in research on walking tourism and recreational walking, such as hiking, trekking and long-distance walking in natural and rural areas (Murray & Graham, 1997; Allaire, 1998; Coble, et al., 2003; Chhetri, et al., 2004; Breejen, 2007; Cutler, et al., 2014). However, little attention has been paid to walking tourism in urban areas or more precisely, relatively short-distance walking in the built environment and in cultural settings (Yun, et al., 2018), even though walking is a fundamental, universal and significant tourist activity (Dietvorst, 1995; Thornton, et al., 1997; Shaw, et al., 2000; Davies, 2018; Hall and Ram, 2019). According to Hall and Ram (2018) *“walking around a destination to experience the place is an attraction in its own right”* for tourists. Tourist walkability is relevant to understanding visitor perception and satisfaction with a place, which is an important sub-theme within the domain of urban tourism research (Ashworth & Page, 2011).

4. 1. Tourists motivation and Tourist experience

Walking is classed as a tourism activity as it involves travel to destinations where walking takes place (Brown, et al., 2020). Tourists mostly walk with an exploratory attitude to reach points of interest or events which might be done solo, or organised in large groups led by a guide. Tourists also stop often, either for taking pictures of interesting spots or for shopping (Gorrini et al., 2018). Whenever tourist groups are asked about their experiences, they speak in favour of their experiences on foot and consequently, Gregory and Stephan (2010) stated that a walkable city should be a magnet for tourists. However, motivations to walk when it comes to tourists are diverse, and include adventure, the discovery and interpretation of heritage, experiencing the social and cultural dimensions of places, and access to locations for wildlife and nature-based tourism (Moscardo, 1996; Lumsdon & Spence, 2002). Dann (1981) stated that it makes little sense to view motivation as an unconscious process and to study tourist satisfaction in isolation without considering motivation. Psychologists generally agree that *“a motive is an internal factor that arouses, directs and integrates a person’s behaviour”* (Murray, 1964). Essentially a grasp of motivation reveals why an individual or group have behaved in a certain way or why they are about to perform an action, rather than having to speculate around how personal decisions led to an event taking place.

Following on from this, Vroom (1964) formulated an expectancy model, where motivation represents the psychological needs to pursue a stated goal. To explain such a behaviour, two required conditions were noted, as elaborated by Heckhausen (1989). First, to anticipate the occurrence of the stated goal, there must be an expectation and second, the stated goal must

have some intrinsic value or attractiveness (valence) for the subject. Therefore, motivation can be conceptualized as a product of expectancy and valence. Or in other words, an individual's motivation to perform a certain activity is a function of the expectation that he or she will be able to perform the activity and obtain the desired outcomes, and the personal value of all outcomes associated with that activity (Hsu, et al., 2010). Motivation has been further studied and Edwards and Griffin (2013) who demonstrated that tourists enjoy walking around a city as this is an activity which affords them the opportunity to become connected with a place, and to utilize the totality of their senses (sight, sound and smell) as they pass from one space to another.

Tourist experiences are highly personal psychological phenomena built on the subjective interpretation of occurrences, tourist's adaptability to situations, expectations, perception, and social interactions. Together these are then interpreted and integrated into individual knowledge and memories and recollection processes at tourist destinations (Hall & Page, 1999; Zakariya, 2006; Larsen, 2007; Selstad, 2007; Volo, 2009; Cutler, et al., 2016). Knowing more about these experiences could be a tool for understanding what makes places suitable for walking. According to Solnit (2001), a mere feeling of excitement from being in an unfamiliar environment might account for a unique experience as even some mundane places could be attractive to tourist eyes and might carry special meanings (Ameel & Tani, 2012). Concomitantly, the tourist experience is linked to overall satisfaction with the visit, which has a vital role in the intention to revisit the place (Cole & Scott, 2004; Supitchayangkool, 2012). Aho (2001) has classified touristic motivations based on three basic categories: physical elements; mental elements; and social elements (*Figure 1*).

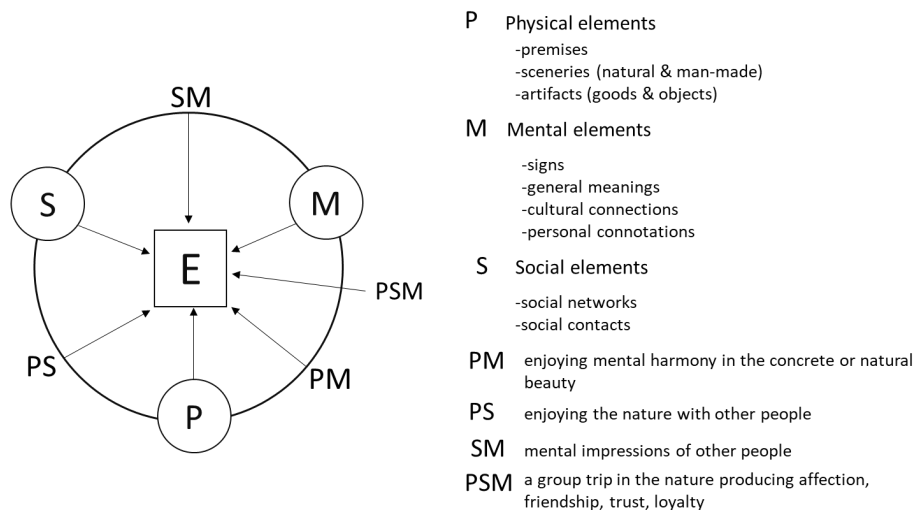


Figure 1: Motivational elements in experiences (Aho, 2001)

4. 2. Studies on tourist walkability

As explained above in Section 2, a systematic literature review was conducted to find the relevant studies on walkability and tourism from different databases. Using specific keywords

related to this topic, the broad search results were narrowed down to 16 published works, the findings of which are shown in table 3 and explained in detail below.

The tourist experience was studied by Edwards, et al. (2009, 2013) who surveyed 1088 local and foreign tourist respondents through a retrospective postal survey in Sydney and Melbourne and found that tourists were prepared to walk between 10 to 35 kilometers a day. They identified the paths of tourists using GPS and the key attributes that they sought in their destinations to evaluate aspects of the tourist experience. They found domestic and international tourists differed in their expectations, and the perceived importance of destination attributes.

In another study in Tokyo, the influence of streetscape and walkability components on the walking decisions of tourists were studied by Samarasekara et al. (2011) discovering that activity potential and exploration made a lesser contribution to the experience than the safety and comfort variables. However, even though these variables were described as providing a positive influence on tourists, the study was conducted using 'virtual tourists', i.e., university students from the author's university.

Farkic, et al. (2015) conducted a preliminary questionnaire based survey in two cities in Israel using locals as well as tourists to understand first what form of transport the participants used to explore the city. If they walked, then their walking experience, satisfaction, attachment to the places and other related issues were surveyed. Their findings suggested that walking was the most preferred mode of mobility in both cities and tourists walked to explore the city, whereas locals walked for recreation. The main findings of their study were that the design of the walking infrastructure, as well as the comfort and safety of those who walk are important for tourists as well as locals.

With Kuala Lumpur, Malaysia as a case study, Zakaria and Ujang (2015) assessed the comfort of 400 visiting pedestrians (locals and foreign) with reference to connectivity, accessibility and safety and discovered that physical safety was a barrier to the comfort level of tourists. Later, Ujang and Muslim (2015) studied how connectivity, accessibility, comfort, safety, attractiveness and pleasantness affected the psychological sense of place such as place meaning and attachment. Their study revealed how safety, comfort, connectivity and accessibility were important for tourists, but, at the same time, problems were raised over the continuity of walkways, quality of pavements, universal accessibility, and the vehicular traffic system. Pleasantness based on shopping areas and the vibrancy and liveliness of activities was also studied and visitors had a positive response when they could experience the multi-cultural nature of Kuala Lumpur. However, pleasantness for a visitor based on the weather conditions was not taken into account. In a subsequent study, Mansouri and Ujang (2016) indicated that the image and social aspects of place influenced visitor walking experiences more than the quality of the walkways, safety, and the degree of comfort. Also, tourists were least satisfied with the activities they could be involved in as they walked. Ram & Hall (2018) highlighted the importance of studying tourist walkability and in a following study, Hall & Ram

(2021) reviewed the importance of weather and the climatic conditions for the walking behaviour of permanent residents and tourists. A study was conducted by Yun, et al. (2018) on 233 urban tourists to understand the spatiotemporal distribution of walking tourists in different seasons (2013, 2014, 2015) on a sunny weekend. The tourists used GPS to track their movements and spring was found to be involved with the maximum walks and stopping outside, followed by autumn, and then summer. This study only involved the younger generation and did not align the findings of the spatiotemporal density of urban walking with their psychological characteristics.

Sarmemto (2017) shadowed 32 tourist parties at a distance. The parties consisted of 326 tourists. Sarmemto observed their routes, stops, where they gazed and their interactions and found that the culture and traditions of local people are sought by tourists, and that the presence of people was a measure of tourists' feeling of safety. Even though a short semi-directed survey was conducted on a few of the observed tourists, this research was mostly an observational study. In the most recent study, Yang, et al. (2020) studied the perception of 312 tourists in a traffic free zone in China as to the quality of the walking system to understand the attribute that had the largest impact on tourist satisfaction with walking there. They considered the level of crowding, cleanliness, convenience and comfort, presence of signage, environmental art, street lightning and shade. They found that the level of crowding and cleanliness were important. Nevertheless, this study was conducted on tourists rather than both tourists and locals, and a comparison of both groups would be necessary for a full understanding of which urban attributes encourage walking for all.

Even though these studies in the area of tourists walkability look helpful, they had some shortcomings. Samarasekara (2011) and Ujang & Muslim (2015) conducted their study on virtual tourists. Edwards et al. (2009) and Edwards and Tony (2013) conducted a postal survey which might result in loss of information from fading memories with time. Yun et al. (2018), as already mentioned, conducted their study on the younger technology wise generation and did not consider the personal attributes that could affect walking behaviour. The Sarmemto (2017) study was conducted during the day and did not consider night time walking, which according to the author could be a different experience. Finally, the study by Yang et al. (2020) was conducted in a traffic free zone on tourist, without considering local residents.

Table 3: Review of literature on Walkability and Tourism

Author	Year	Theme	Aim of study	Methodology	Location, sample size	Type of sample	Results
Seppo & Aho	2001	Walkability and tourism (theoretical)	Tourist experience of walking	Theoretical study	N/A	N/A	N/A
Scott, et al.	2004		Place identity and people	Theoretical study	N/A	N/A	N/A
Gorrini & Bertini	2018		To propose a set of assessment criteria for the evaluation of the level of walkability of cities for tourists	Theoretical study	N/A	N/A	Criteria: Usefulness, comfort, safety, attractiveness, legibility
Henderson	2018		Explore the meaning of walkability	Theoretical study	N/A	N/A	N/A
Hall & Ram	2018		Importance of the study on tourist walkability	Theoretical study	N/A	N/A	N/A
Hall & Ram	2021		Influence of weather on tourist walking	Theoretical study	N/A	N/A	N/A
Samarasekara et al.	2011	Walkability and tourism (Pseudo Tourist)	Streetscape influences on the walking decisions of tourists	Questionnaire; Field observation; Rating scale; Photographic	Tokyo, Saitama (Japan); 16;60; 87 for each methodology	University student	Presence of a place to walk and separation between pedestrian area and traffic are the most important and the least is safety
Ujang & Muslim	2015		Effect of walkability components on walking experience and tourist bonding to the places they visit.	Questionnaire; Interviews (Preliminary survey) ; Photographic	Kuala Lumpur, Malaysia (historical district); 100	University students	Best way to explore is to walk; image of places influences the visitors' walking experience more than the actual quality and comfort
Mahsa & Ujang	2016		Spatial features and tourist satisfaction with walking	Questionnaire	Kuala Lumpur, Malaysia (historical district); 330	Previous data	Diversity of activities and spatial features affect tourist expectations and satisfaction

Author	Year	Theme	Aim of study	Methodology	Location, sample size	Type of sample	Results
Farkic, et al.	2015	Walkability and tourism (retrospective postal study)	The reason for walking	Questionnaire; Interview	Israel;409	Locals and tourists	For tourists walking, architectural design and functional requirements have a positive effect
Edwards et al.	2009		To identify key attributes tourists seek in destinations, and their importance	Visitor tracking (GPS); Questionnaire; Interview	Sydney and Canberra; 1018; 444	Locals and foreign tourists	Domestic and international tourists differ in their expectations, perceived importance of destination attributes; repetitive touring along same path uncommon
Edwards & Tony	2013		To track the paths of tourists and evaluate aspects of a tourist's experience	Visitor tracking (GPS); Interview	Sydney and Melbourne; 154	Locals and foreign tourists	Visitor information services and wayfinding important
Zakaria & Ujang	2015	Walkability and tourism (Real tourist)	To determine pedestrians' satisfaction of comfort based on their walking experience	Questionnaire	Kuala Lumpur, Malaysia; 400	Locals and foreign tourists	Physical safety of walkways important, especially along smaller streets
Sarmento	2017		To study tourists' rhythms and modes of walking, including their performances, body languages, stops and advances, and gaze interactions	Shadowing at a distance, Short semi-directed interviews	Tunisia	Tourist	Culture, tradition of local people sought by tourist, presence of people important as safety measure
Yun et al.	2018		To determine urban walking tourists' spatiotemporal distribution by season	GPS, Questionnaire	Seoul	Tourist	Moving and staying variables of urban walking tourists differ significantly by season. Spring the best
Yang et al.	2020		Perception of tourist of the quality of walking system	Questionnaire	China; 623	Tourist	Cleanliness, level of crowding important

The findings from the studies on tourist walkability and their limitations point towards a need to study on tourist walkability by considering both locals and tourists in order to understand whether there are differences in their perception of walkability and what environmental and psychological attributes affect them.

5. Summary and Conclusion

This paper has reviewed the literature on walkability and walking behaviour with a focus on the tourist experience, a study area that has to date been overlooked. People live in cities and experience them first hand, and it is clear that each place can be viewed from a variety of perspectives. There will be differences between what tourists and locals see in a place, in how they feel, and between the viewpoints of old and new residents as *'People live in different worlds even though they share the same locality: there is no single community or quarter. What is pleasantly old for one person is decayed and broken for another'* (Wright, 1985). Although there are indications and preliminary results that manifest some of these relationships, the study deserves deeper investigation in order to generate primary data about tourist walking attitudes and behaviour.

6. Future research

This review of research in the field of tourist walkability provides a good starting point for future research. Further studies could investigate the similarities and differences in the perception of urban walking routes of both residents and tourists to understand which attributes influence the walking behaviour, and whether both groups appreciate the same attributes. This could be achieved by conducting a survey in cities using a mixed method approach. The intention is to follow this review with such a study of walking tourists and residents in two cities in New Zealand and to feed the information gained back to the local planners and urban designers, in the hope of encouraging more walking and less dependency on motorised travel in the cities.

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