Assessing the Degree of Publicness in Streets

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Abstract
Streets have always been a vital source of public life in Indian cities. The advent of virtual technologies and changing urban realities, have impacted its publicness and activation. Additionally, increasing degree of publicness in privately owned public spaces poses significant reduction in street life. Hence, it is important to assess the street qualities which contribute to public life. The physical, non-physical and metaphysical qualities of street assessments will bring out the essential qualities of streets that contribute to public life in contemporary streets. This paper enquires socio-cultural and sensory aspects of street life. It would assess parameters that contribute or contradict the degree of publicness. The study would discuss and build assessments from Vikas Mehta, William H. Whyte, Henry Lefebvre and Jan Gehl's theories and perspectives. This research would build a critical enquiry about temporality and everyday urbanism and contribute to the discussions on placemaking and tactical urbanism strategies.
Keywords: publicness index; street design; public life; street life; sociability.

1. Introduction

Cities have always evolved as urban agglomerations and centres of economic generators, social and public life. Densification is one of the major impacts of migration, growth and urbanization. Quality of life and urban liveability has significant positive impacts due to public life that a city offers. As Vikas Mehta[1] mentions, good cities are places of social encounter. Creating public spaces that encourage social behavior in our cities and neighborhoods is an important goal of city planning and design. Streets form a vital component of public space reserves in a city and make them amicable[2]. Apart from the intention of providing mobility and accessibility, they also perform as places of public activities. *One of the cardinal roles of the street, as public space, is to provide a setting for sociability. How do we make sociable streets?* (Mehta, The Street: A Quintessential Social Public Space, 2013)

The street is a pluralistic cultural, social, economic and political space—ambiguous, ever changing, interactive, full of complexities and contradictions, and with diverse meanings for all. And within this ambivalence and pluralism lies the potential of the street. (Mehta, The Street: A Quintessential Social Public Space, 2013)

The meanings and manifestations of public life on streets is transforming with the advent of automobiles. There have been discussions about shrinking relevance of street markets in future. It is pertinent to review and assess these street spaces for their vitality and *environmental character.* (Schulz, 1991)

It is simultaneously based in a social, psychological and spatial exploration of what makes streets good for people. Without places for active and passive socialization, with no opportunity for casual and formal interactions, our cities and towns would be no more than agglomerations of privatized spaces and buildings, devoid of the space for the individual to be a complete citizen: A landscape that affords a limited ability to explore, create, express and share; to encounter difference and learn; and to confront, tolerate and resolve conflict. (Mehta, The Street: A Quintessential Social Public Space, 2013).

This situation described by Vikas Mehta[2], might emerge as a future reality, if public life is not prioritized in mainstream urban planning and design as well as decision making process by city managers, civic and implementing authorities. (Mitchell, March 1995)'s emphasis on the definitions and notion of public and democracy offer a conducive context to these debates.

Research Question

The research enquiry intends to assess the street qualities which contribute to public life. It constructs a critical assessment about the function of streets beyond mobility and essentially as public places. This assessment includes placemaking attributes like informality, temporality, inclusivity, territoriality and everyday urbanism. The research formulates a framework to assess the degree of publicness.

Need

Publicness may be defined in multiple perspectives and is considered to be a quality that allows free public access, use, shared ownerships, stewardships[3] and inclusive for this research. Publicness is an essential factor which enhances

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[1] Vikas Mehta, The Street: A Quintessential Social Public Space, 2013
[2] Vikas Mehta, The Street: A Quintessential Social Public Space, 2013
[3] Jan Gehl, Life Between Buildings, Island Press, 2011

liveability component in urban centres (Amen & Nia, 2020; Aziz Amen, 2022). Therefore, it needs to be prioritized right from macro to micro level planning initiatives by civic authorities and be integrated with statutory planning processes such as preparation of master plans, development plans, vision and objectives for cities. *Discussions of the history, theory and practice of city design underlie each text and the traditional disciplines of urban planning and urban design are augmented by an emphasis on the primacy of human experience and a close observation of lived realities*. (John Chase, 1999)

People typically adapt and create their own spaces which contribute to public life. These lived realities and experiences are documented in this study for primary assessments. The idea of taking actions towards fostering public life is essential and needs to be embedded in city's development goals. Henri Lefebvre also discusses this as *an opportunity for unofficial and popular elements to playfully invert social and cultural conventions by elevating the everyday and "uncrowning" the elite*. " (Sadler, 1998). Indian cities have high density of population using the public spaces of everyday urbanism. One may argue that majority of public spaces are crowded and hence reflect higher order of public life. There is a minor distinction felt between these two words such as "public life" and "publicness". It is critical to assess if these crowded looking public spaces are really public in nature? This generated the need to formulate an assessment framework, which is also contextual, to demonstrate and cultivate the sense of publicness critically. *The city is a social product, created out of the demands of everyday use and the social struggles of urban inhabitants. Design within everyday space must start with an understanding and acceptance of the life that takes place there. The professional abstractions inevitably produce spaces that have little to do with real human impulses.* (Crawford, 1999) *"Everyday" speaks to this element of ordinary human experience and itself conveys many complicated meanings. Everyday describes the lived experience shared by urban residents, the banal and ordinary routines we know all too well – commuting, working, relaxing, moving through city streets and sidewalks, shopping, buying and eating food, running errands. Even in this descriptive incarnation, the everyday city has rarely been the focus of attention for architects or urban designers, despite the fact that an amazing number of social, spatial and aesthetic meanings can be found in the repeated activities and conditions that constitute our daily, weekly and yearly routines. The utterly ordinary reveals a fabric of space and time defined by a complex realm of social practices – a conjuncture of accident, desire and habit.* (Crawford, 1999)

The outcomes of this research will demonstrate a pilot assessment based on a contextual framework formulated. This demonstration would reflect the actual conditions and degree of publicness of these crowded looking markets. A case of street market is considered as a primary case for demonstration. The learnings from this research, may be applied to practice, decision making and participatory approaches to enhance publicness of streets in cities. These user sensitive, lived assessment and experiential frameworks may also make significant contributions if included in decision making and statutory mechanisms to guide the development strategies.

Figure 1: Street markets as congregation spaces

Methodology

The research methodology was initiated from a broad to a focused literature review to derive a holistic understanding on the premise. The literature review developed a critical base on existing database, frameworks and diverse approaches. The frameworks derived by two major literature were identified for an in-depth study. The critical findings of literature review are discussed further. The selection of a thriving public space in Ahmedabad was selected that reflected a higher degree of publicness, thereby making it suitable for formulating an assessment. Site reconnaissance and primary data collection through site visits across weekday and weekend, was initiated while the analytical framework was being formulated.

Strategic parameters from the framework by Vikas Mehta (Mehta, The Street: A Quintessential Social Public Space, 2013), namely Proxemics, Interactiveness, Behaviour setting and Sociability were considered as qualifying criterias to assess the three spaces identified within the street. This qualifying stage assessment allowed scope of developing a deeper understanding, documentation and critical evaluation. Cartographic mapping and photographic documentation techniques were used to capture data of lived experiences across three times of the day, which were identified based on preliminary site visits and insights captured. *The essays and photographic studies explore the city as a social product- a kind of social geography-to illustrate a new, multidimensional understanding of everyday space*.

(John Chase, 1999) The maps therefore communicate essays of spatial representations of public activities which occur and function as daily rituals. The cartographic and photographic techniques of mapping and documentation of carefully capturing site occurrences is followed in this methodology. Parallel studies and literature reviews have been conducted to build a perspective on the argument followed by a framework of analysis. The meticulous preparation of cartography maps documented the site conditions, public activities, usage patterns, informal establishments, walkability, visibility, experiential qualities etc. Subsequent to the mapping and documentation stage, the framework for analysis was formulated overlapping two frameworks from secondary (denoted as L1 and L2) and one from primary data collection (P3).
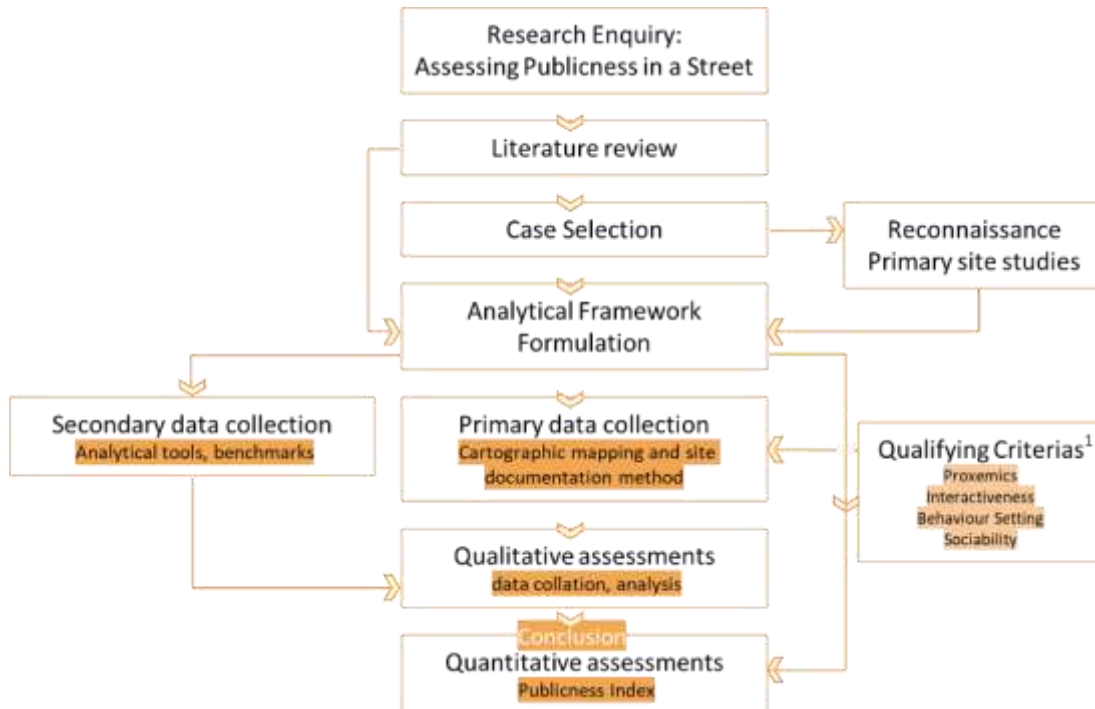
Figure 2: Research Methodology

(Jan Gehl, 2013) states that cities discover Public Life Studies as a tool. Cities became an active part of method development in the years 1985-2000. Public life studies become more integrated into city planning practice and thus incorporated in a new political framework. Many factors other than the purely technical and research-related now influenced the form of the studies, particularly how and whether they were used. (Jan Gehl, 2013)

Hence, the framework of assessment was derived from these three perspectives. The first one being The Street, authored by (Mehta, The Street: A Quintessential Social Public Space, 2013) and second being a paper by (Ahmed Abdel-Rasoul P. S., 2017). The qualitative and quantitative assessments were conducted to aid the research process leading to an assessment index as conclusive outcomes about degree of publicness.

2. Case: Street Market, Ahmedabad, India

The city of Ahmedabad is characterized by its entrepreneurial, commerce and trading opportunities, educational hub with an historic urban city core entitled with world heritage city status. The city was once a fertile ground for textile industry and was also acclaimed as the 'Manchester of the East' during mid 1900's. These textile and allied industries attracted huge population of migrants for work and trade.

By 1950, nearly 0.125 million workers were employed in the textile mills. Around 1960 nearly twothirds of the industrial production was in textile and allied industries. It also generated directly half of the total industrial employment in the state. Prior to 1985 there were 85 textile mills in Ahmedabad city. In 1980's, this industry faced a major phase of decline that resulted into massive employment, social and liveability crisis for a large share of working population. This impacts of this lead to severe unemployment and degeneration in the city. By 1994, many mills faced liquidation and were officially closed down, so that there were only 23 mills left in the city. The actual numbers of workers who lost their jobs as a result of the closure of mills was nearly 67,000 by 1997. (Bhatt)

The crisis resulted into major shifts towards tertiary economy sectors which lead to rapid increase in informal vending activities. Therefore, this shift gave rise to informal markets, street vending significantly in the city. It is also a major contributor to the local economy. There are movable vendors who move around routes consisting potential consumers as street vendors. The other types of vendors establish themselves informally at the same location functioning as everyday markets. Ahmedabad has multiple prominent street markets which are actively being used for commerce as

well as recreation. They are inclusive to people's association and cultural presence in the city. The street markets have been identified as primary cases for assessment as they contribute to higher degree of publicness.
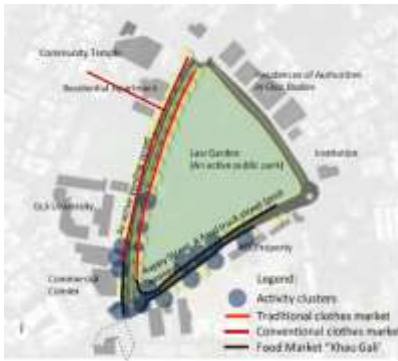

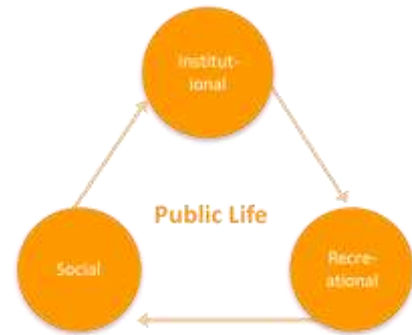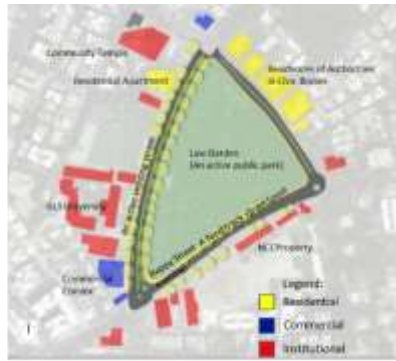**Figure 3:** Existing Building Use   **Figure 4:** Functions of Place as a Node

These everyday establishments of street vending depict informality and flexibility. There are attributes that work both for the vendors and people. These everyday urbanism practices allow a scope of elasticity which is a key to invigorate contested urban spaces according to multiple stakeholders' needs and aspirations. Vehicular ingress has started consuming vital public spaces and there is a need to identify elastic and ephemeral qualities of public spaces.

The research conducts an assessment of a prominent street market in Law Garden area of Ahmedabad. The images below depict cohesiveness between formal and informal uses. The area has a destination value in Ahmedabad considering the triangular public park known as Law Garden and abutting institutions and commercial establishments. As observed in figure 3, this place is one of the most significant public destinations acting as a major commercial, social, cultural and recreational node of the city. The figures 5 and 6, depict the multiplicity of street activities starting with initiation of formal and informal uses throughout the day until late hours of night.

3. **Primary data collection**

(image source: Riya Darshan Shah, Anant National University 2024 batch, Ahmedabad, India)
Figure 5: Types of street vending activities

As shown in figure 5, three spaces have been identified from this street, based on their higher degree and multiplicity of public activities. The nature of vending also coagulates with the usergroups which the place attracts for institutional and commercial purposes. These types of vendors include selling of food, snacks and beverages, traditional clothing and apparels, footwear, jewellery and accessories etc. The typology of vendors selling these include both mobile and stationary.

The nature and intensity of ritual of street activities is illustrated in figure 6. The functioning hours of this city level public park initiates at 5 am until 12 pm and 2 to 10 pm.

The park acts as a generator of public life starting from early morning and attracts huge number of people who visit for healthy walks and exercise. This leads to establishment of street vendors who sell healthy refreshments, snacks and beverages like tea and coffee being the most preferred beverage. Tea stalls constitute a major incubator space for public life in Indian streets. Subsequently, the GLS school (institution) opens at 7:00 am onwards, when there is a rush of school teachers, children and their parents, school vans, autorickshaw drivers who have arrived in the space to drop. The tea and food refreshment stalls serving breakfast food resume their functions around this time. The GLS University college (institution) opens around 9:00 am, which is about two hours later to the school opening timings. The street again thrives in terms of new visitors. As William H. Whyte[4] mentions public spaces, tend to have more assorted patrons throughout the day—upper-income older people, people coming from a distance. But office workers still predominate, the bulk from nearby. (Whyte, 1980)

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[4] William H. Whyte, The Social Life of Small Urban Spaces, 1980

The area is centrally located to office areas and the street is also an arterial street connecting the city for people travelling from North-South and East-West directions. Hence, it also acts as a thoroughfare for city dwellers commuting to other parts. During the primary data collection visits, it was observed that this place acts as a pause point for lot of people who are by-passing through this place for work or education. The institutions, informal vending providing food, refreshments and beverages, therefore, generate public life during the morning time.

The city is a social product, created out of the demands of everyday use and the social struggles of urban inhabitants. Design within everyday space must start with an understanding and acceptance of the life that takes place there. (Crawford, 1999) This lead to developing further understanding of public use of space.
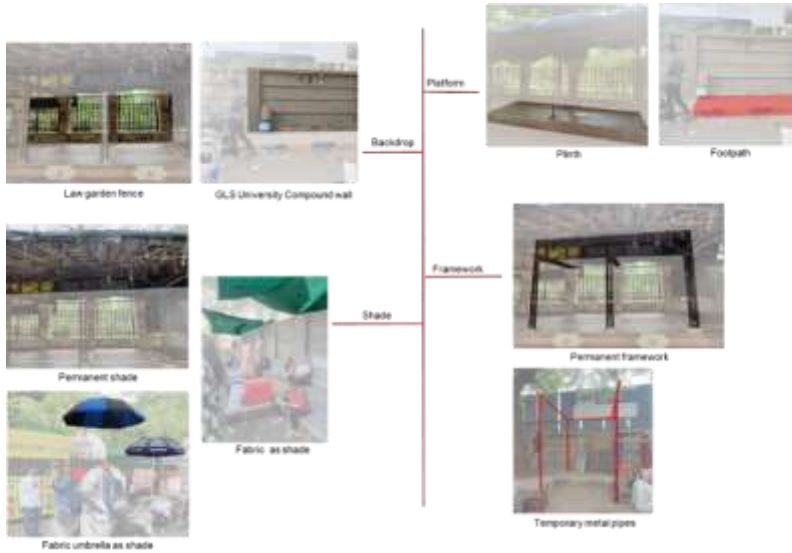
Subsequently, in the noon, the office going middle aged user group, school and college going youth, are dominant user groups of the space around lunch time. The closure timing of institution observes a surge in public footfalls and traffic. This continues until 3:00 to 4:00 pm before this activity subsides. The street thereafter unfolds as a major market for the city in evening hours. The market attracts local as well as tourist visitors throughout the year. These spaces are therefore flexible in nature, mutating with multitude of public activities. They generate human experiences through conversations (verbal and visual), negotiations and social interactions.

As observed in site visuals above in figure 6, 7 and cartography maps in figure 8, 9, 10, the vendors start establishing their display of items using the existing boundary walls, the pedestrian walkways along the street edges on the west, denoted under space 01 and 02, for this research. These vendors are essentially established daily with mutual agreements earmarking a territory along the street edge.

Figure 6: Periodic Public activities on site

The types of vending include garments and accessories, footwear, mobile vending including intermittent food and beverages. The street activity on this western edge is informal in nature. Vendors demarcate their invisible territories towards the boundary wall which also has a 1.5 m- 2.0 m wide footpath.

As seen in street sections, the activities are layered further with movable and informal vending and parking and users like consumers, pedestrians navigate through this layer. This layer is a threshold between vehicular movement and street vending at the edge. This layer is volatile and absorbs or succumbs to the intensifying pressures of public movements and activities.

This is a volatile layer of activities which observes both vehicular and pedestrian movements. This negotiation raises concerns of experiential quality for shopping and walking through the street market.

(image source: Riya Darshan Shah, Anant National University 2024 batch, Ahmedabad, India)
Figure 7: Space making elements of temporality and territoriality

Figure 8: Public activities in Space 01

Figure 9: Public activities in Space 02

(map source: Riya Darshan Shah, Anant National University 2024 batch, Ahmedabad, India)

(map source: Riya Darshan Shah, Anant National University 2024 batch, Ahmedabad, India)
Figure 10: Public activities in Space 03

The street edge abutting law garden, denoted as space 03 in this research, has a provision of a plinth and a shelter. This allows for a standardised and modular vending establishment for traditional wear and accessories. These vendors sell traditional wear, accessories which thrives through the year but peaks up in demand during the annual festival season between September to November. There is a surge observed in the number of footfalls during this peak season. It is a major destination for cultural outfits for the locals and tourists in the city.

Therefore, it attracts large number of people on a daily basis. These vendors have been formalised by the local authorities and provided with a plinth and shelter with frames, where the vendors organize their display daily from 3 to 4 pm onwards. There is a walkway which is next to the linear plinth to allow people to walk and pause to check the products on sale. This plinth also acts a seating for people when the market is non-functional. Although, it is inadequate during evening time of market, considering the visitors and hence there is a spill over of pedestrians onto the carriageway beyond the parking bays abutting this walkway. The site sections and the cartography maps are illustrated in figure 8, 9 10, reflecting these in-situ formations for all three spaces.

The Law garden street, evolved from a quiet parkside street into a vibrant street market and a destination. The place value used to be determined solely by the presence of park and institutions. Over a period of time, the vendors were

given provisions through corporate social responsibility (CSR) funding by Ashima group of companies. The vendors grew in numbers and footfalls increased. The types and nature of vending also diversified to give an wholesome experience of food, recreation, commerce for all age groups.

Cities must acknowledge, adapt and capitalize on this fluid nature of activities to induce public life. This also can be done with minimal investments (Stevens, 2006)*. Lefebvre distinguished between two simultaneous realities that exist within everyday life: the quotidian, the timeless, humble, repetitive natural rythms of life; and the modern, the always new and constantly changing habits that are shaped by the technology and worldliness.* (Crawford, 1999)

As seen in figure 11, the daily usage pattern of street, follows a certain routine and regime. As Henri Lefebvre mentions "*Quotidian*" as a daily ritual which determines the emergence everyday and gradually fading out by the end of the routine. This quality of folding and unfolding is highly essential for sustenance of public life. This quality ensures the continuity and replicability of this everyday life. There is an interdependence between the formal and informal activities, which is an essential ingredient to publicness.

In urban public spaces around the world people pursue a very rich variety of activities not originally intended for those locations. Sometimes these activities occur along with the primary, intended uses, as on the sidewalk, in the street or in the plaza. (Stevens, 2006)
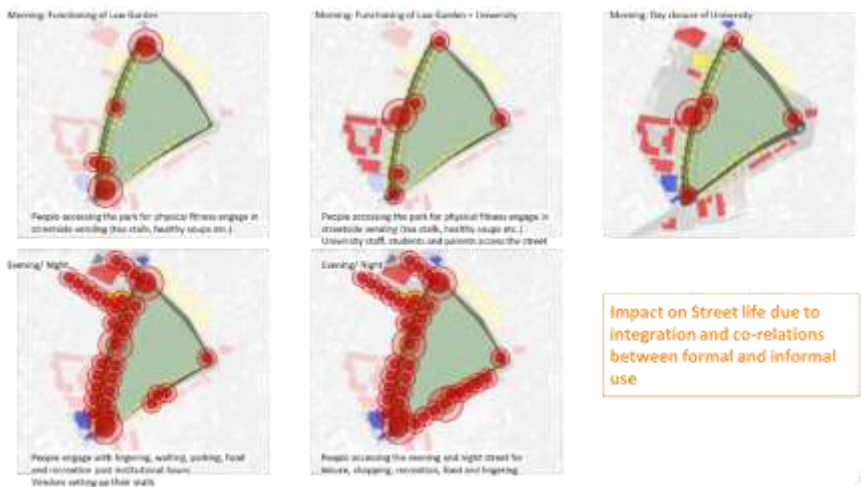

(map source: Author)

Figure 11: Intensity of everyday public activities

Brian Rigby claims in his history of French popular culture; "the street is the privileged site which unites the quotidian and the festive. (Sadler, 1998). Quotidian is the principle that reflects continuity and replicability to allow street functions to organise and occur and therefore contribute to everyday life. This is a ritual that unfolds and folds public life every day. This quality of folding as assembling and unfolding as dismantling as a ritual is unique to the idea of temporality.

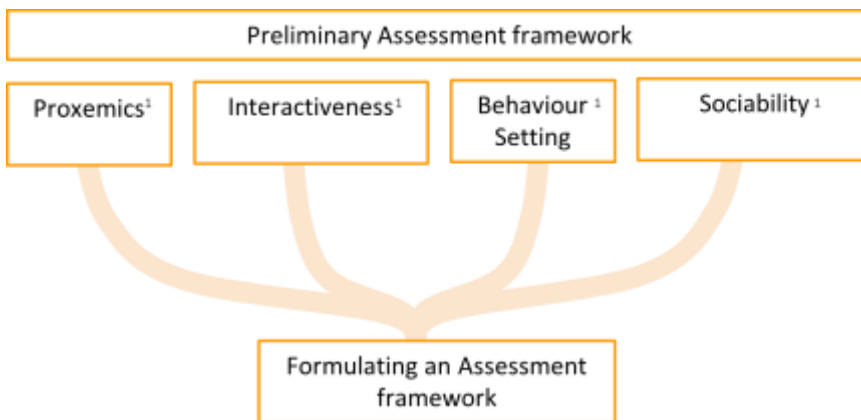## 4. Stage 1 Analysis: Qualifying criterias

Figure 12: Stage 1 Analytical Framework

As discussed in the methodology, the analysis was conducted in two stages. The first stage is considered as qualifying criterias to establish the relevance of the selection of case and three spaces as primary study areas. For these criterias, an existing framework of parameters prescribed by Vikas Mehta[5] was adopted as a structural form of this research as shown in figure 12. This literature, emphasized on the psychology of the street, dealing with aspects of place,

territoriality, personalization and controls, proxemics and social distances in public interactions and social behaviour. This assessment included four parameters namely Proxemics, Interactiveness, Behaviour setting and Sociability. This stage was pursued as a validation mechanism to verify the primary data collected through cartography and photographic documentation of spaces. Subsequently, the assessment outcomes lead to further detailing and formulation of an assessment framework to derive a holistic publicness index as envisioned in this research. The formulation is a critical part of the research as it intends to derive and provide a tool for assessing public spaces contextually. The framework is still a pilot study and can be extensively detailed further. This assessment tool would

[5] Vikas Mehta, The Street: A Quintessential Social Public Space, 2013

review the degree of publicness of any public space with the predetermined framework of benchmarks, best practices, in-situ conditions and challenges, local attributes etc. The outcomes of this analysis are discussed furthermore in detail. The data represented in each parameter, was derived by qualitative scoring method with benchmarks such as Strong (100), High (75), Moderate (50), Weak (25), Negligible (0). (Mehta, The Street: A Quintessential Social Public Space, 2013)
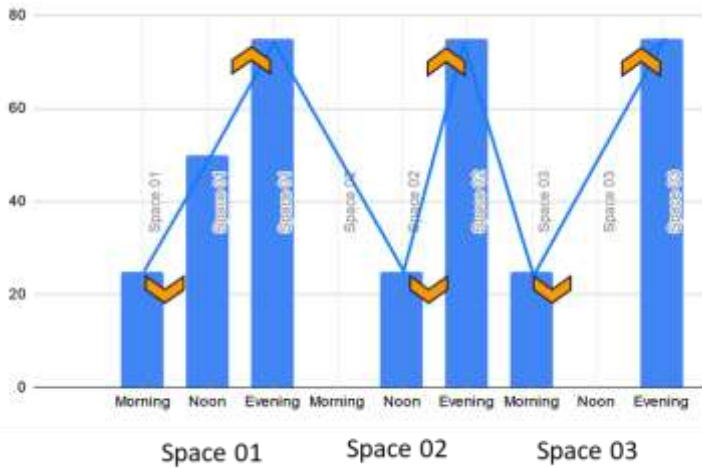
1. **Proxemics:**

Space 01   Space 02   Space 03

Figure 13: Degree of Proxemics

As Vikas Mehta[6] describes the relationship and distance of human bodies to each other determines the range of social behaviors possible on the street. Because social behaviour requires passive or active engagement with another, the interpersonal distances encountered by people on the street shape their experiences and social behaviours. In his 1966 work The Hidden Dimension, E.T. Hall defined four scales of distances between people: Intimate, personal, social and public. (Mehta, The Street: A Quintessential Social Public Space, 2013). The data represented in figure 13, was derived by qualitative scoring method with benchmarks as

Strong (100), High (75), Moderate (50), Weak (25), Negligible (0).

The study of proxemics demonstrates how people perform while they are interacting in a public space. The space making elements and cohesion between the physical and metaphysical settings, influence the nature of activities and interactions. It was inferred that there is an interdependence between formal and informal uses of street.

In addition, the nature of street functions as arterial street of the city and hence it impacts the destination value inviting footfalls as well as passers-by. Street Proxemics tend to rise at the onset of access to park in morning, institutional activities in noon and street vending in evening. The space 02 reflected low proxemics due to lack of activity generators in morning and noon. The space 03 was found inactive during afternoon hours indicating zero proxemics. The figure 14, 15, 16 below, demonstrates the degree of proxemics across three times everyday in three spaces. It is inferred that street vending influences street proxemics significantly in addition to the park and institutions.
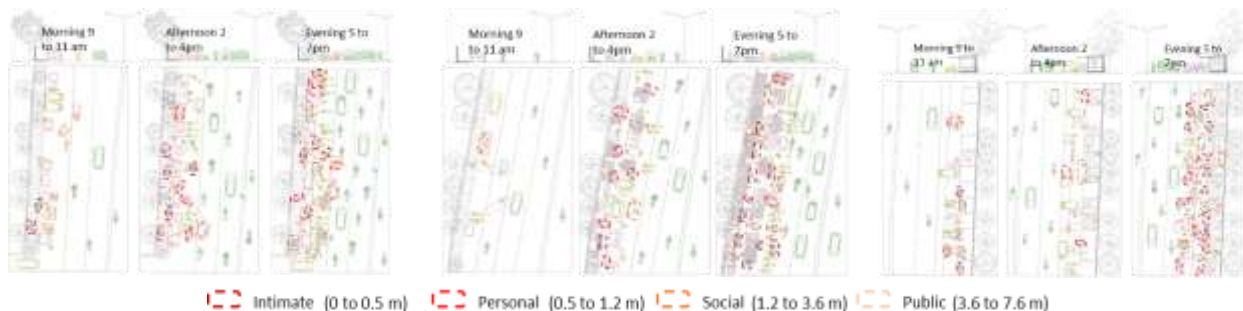

Intimate (0 to 0.5 m)   Personal (0.5 to 1.2 m)   Social (1.2 to 3.6 m)   Public (3.6 to 7.6 m)

Figure 14: Proxemic activities in Space 01   **Figure 15:** Proxemic activities in Space 02   **Figure 16:** Proxemic activities in Space 03

(map source: Riya Darshan Shah, Anant National University 2024 batch, Ahmedabad, India)

As emerging in figure 14, 15 and 16 above, in majority of conditions, people have used these spaces by themselves or in groups of 2 to 5 people. This generates a significant share of intimate and personal proxemics which range between 0 to 0.5 m and 0.5 to 1.2 m personal distance (Mehta, The Street: A Quintessential Social Public Space, 2013).

A high proportion of people in groups is an index of selectivity. When people go to a place in twos or threes or rendezvous there, it is most often because they have decided to. Nor are these sociable places less congenial to the individual. In absolute numbers, they attract more individuals than do less-used spaces. If you are alone, a lively place can be the best place to be. The most-used places also tend to have a higher than average proportion of women. (Whyte, 1980).

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[6] Vikas Mehta, The Street: A Quintessential Social Public Space, 2013

High degree of social and public proxemics were observed when the group size increases and passive interactions, both visual and physical, of observing and participating in an activity from a distance. Those who habituated the space by themselves in singularity or with an additional user, were observed to be engaged within a personal distance and yet passive participation.

2. Interactiveness:

According Vikas Mehta[7], one of the cardinal roles of the street, as public space, is to provide a setting for a range of active and passive social behaviours. This quality of street also impacts the level of interactiveness as analysed in figure 17.
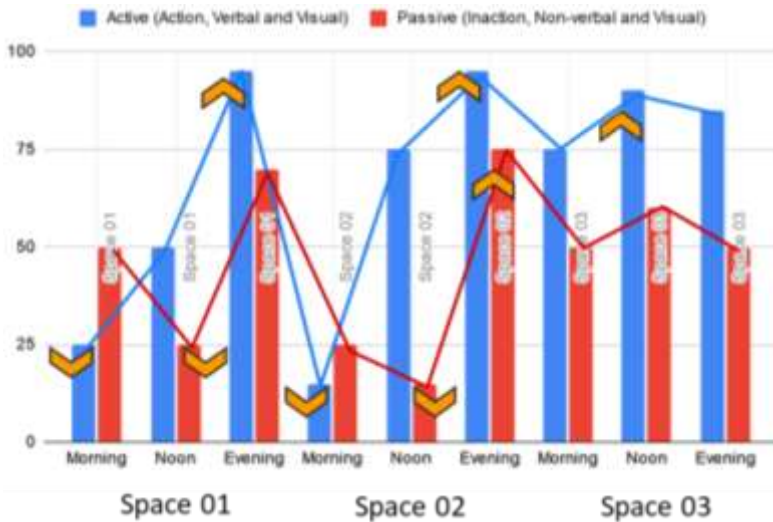
Figure 17: Degree of Interactiveness

Mehta[8] also prescribes that the social interactiveness can be assessed through active participation including action based, verbal and visual based and passive participation through disengagement with any directly performed activity or inactiveness, non-verbal and majorly visualizing as a spectator or observer (Jan Gehl, 2013). The co-existence of active and passive interactions was evident through the cartography maps shown in figures 18,19 and 20 below.

There were people who performed as onlookers and passers by of the place engaging in passive interactiveness. Whereas, the local visitors, residents, vendors, institutional users contributed to active interactiveness. The maximum active interactiveness quality of street was inferred to be during evening time. Space 01 and 02, demonstrated higher passive interactiveness during morning time, while space 03, demonstrated active interactiveness due to the people using the plinth as their seating space during their visit to access the park. (Hans Karssenberg, 2016) mentions that one aspect of good and varied streets is to have compact concentrations of different functions in the plinth.

Space 02 reflected higher active interactiveness due to vendors initiating their ritual of setting up their stalls and informally demarcating their territoriality. In absence of this activity, space 02 would have low or negligible active interactiveness.

Street vending also induced passive, onlooking, visual interactions, which also means street offered a limited purpose for active interactiveness. This invalidates the social quality of the space and hence influenced the parameters as critical enquiry for social index framework. This analysis allowed for retrospection of street provisions like porous edge conditions, public thresholds, minimal spill over qualities, benches, shade and comfort levels. These parameters were therefore included in formulation of sociability index.
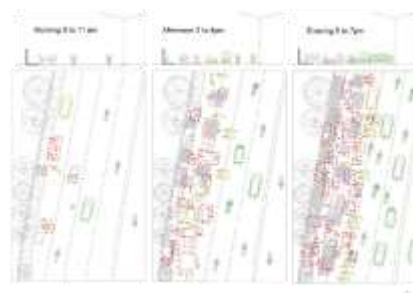
Figure 18: Interactiveness in Space 01

Figure 19: Interactiveness in Space 02

Figure 20: Interactiveness in Space 03

(map source: Riya Darshan Shah, Anant National University 2024 batch, Ahmedabad, India)

3. Behavior setting:

Behavior settings induce favorable public behavior. There are edge conditions which allow an activity to proliferate and sustain or act as barriers to it. Such nested behavior settings at these block segments, along with the patterns of organization and configuration of buildings, floor, landscape, street furniture and artifacts, and the materials, textures

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[7] Vikas Mehta, The Street: A Quintessential Social Public Space, 2013
[8] Vikas Mehta, The Street: A Quintessential Social Public Space, 2013

and colors of these objects, provided the affordances for social activities and behaviors on the street. (Mehta, The Street: A Quintessential Social Public Space, 2013).
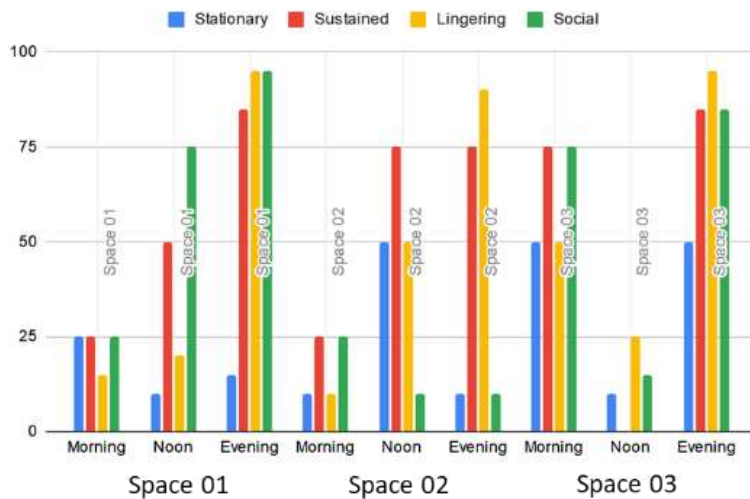

Figure 21: Degree of Interactiveness

As (Schulz, 1991) mentions about a 'Sense of Place' being impacted by its spirit, character where acts and occurences take place. He also discusses this aspect in terms of "environmental character" and "atmosphere" (Schulz, 1991). These settings prescribed by (Mehta, The Street: A Quintessential Social Public Space, 2013), include stationary, sustained, lingering and social form of behavior. Stationary and sustained behavior indicate longer duration of public engagement and hence derive higher degree of publicness. Lingering and social quality as a behavior is also acknowledged by presence of elements which nurture public activities which invite such an extended experiential behavioral settings.

Vikas Mehta[9] elaborates these nested nested behavior settings at these block segments, along with the patterns of organization and configuration of buildings, floor, landscape, street furniture and artifacts, and the materials, textures and colors of these objects, provided the affordances for social activities and behaviors on the street.
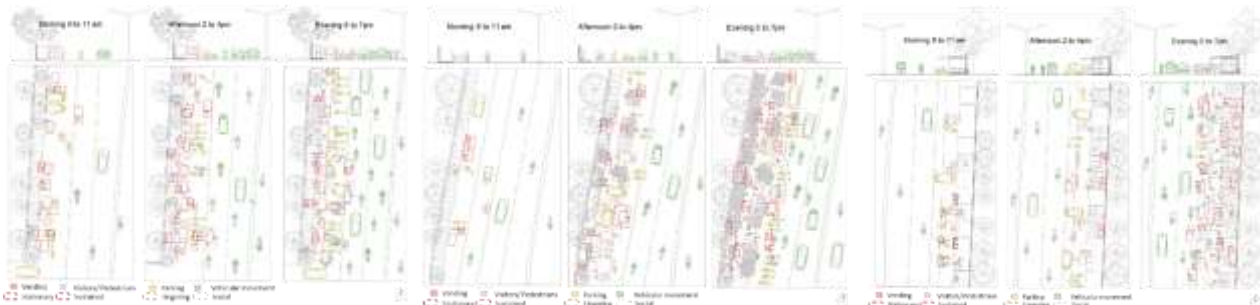

Figure 22: Behaviour setting in Space 01   **Figure 23:** Behaviour setting in Space 02   **Figure 24:** Behaviour setting in Space 03

(map source: Riya Darshan Shah, Anant National University 2024 batch, Ahmedabad, India)

The mapping and documentation reflected in figure 22, 23 and 24 above, the presence of elements which contribute to generate these types of behavior. The analysis revealed that stationary and sustained behavior were intense during functioning hours of park in morning, followed by institutional edges. Sustained and lingering quality of behavior were largely observed when the street activities intensified. The outcomes have been reflected in figure 21.

The shaded areas reflected an extended duration of sustained and social activities during the day. The vendors and consumers chose such shaded spaces or prominent locations with high visibility around intersections, entrance to institutions or parks etc. The presence of walls around institutional and park boundaries, provided a setting with a notion of a back having a street to the front. This allowed for vendors to organize their establishments in a certain degree of order.

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[9] Vikas Mehta, The Street: A Quintessential Social Public Space, 2013
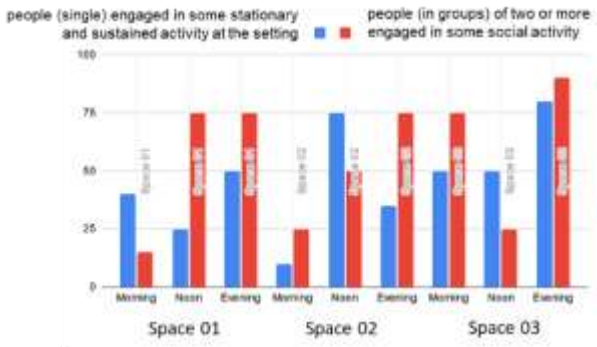
4. Sociability:

Figure 25: Degree of Sociability

Sociability is considered as an extension of the previous parameter of behavior setting. In space 01, the sustained and social behavior was observed at entrance to institutions and food stalls. Stationary and sustained behavior were identified amongst those who were present alone around the institutional and recreational hours. Majority of them acted as onlookers or by-passers considering the role of an arterial street. People who were stationary, sustained or lingering, mostly visited the place in groups of more than two, to engage in conversations and a sustained social activity. These extended conversational attributes, whether active or passive, contribute significantly to the sociability of public spaces.

People visiting the place in groups were found majorly to be youth, friends or family members. They were located near the access to institutions, park, food vending areas. The vending of garments and accessories also attracted young children and women with their care givers and family members. Senior citizen, office going middle age groups were using the space near the park and tea stalls. These social groups were co-existing using the close proxemics to induce sociability.

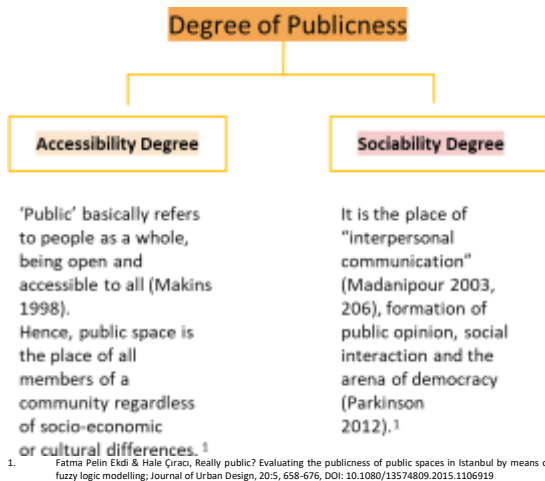## 5. Stage 2 Analysis: Degree of Publicness

Figure 26: Identified Index Parameters

UN-Habitat defines public spaces as "all places publicly owned or of public use, accessible and enjoyable by all for free. Hence, they do exist at the cosmopolitan publicness level of the city life. (Ahmed Abdel-Rasoul E. N., 2017)

This stage 2 is envisaged to be the core outcome of this research. It intends to generate an evaluation framework to assess and derive a measuring index as degree of publicness.

As discussed by (Mitchell, March 1995), the oldest form of a public space can be derived from Greek Agora, which were open spaces for public expressions, citizenship along with being a market place. As (Ciraci, November 2015) states, publicness is a feature of the urban environment dependent on the values of its dimensions. The degree of publicness basically defines how well a public space works and how well it serves the public. Public space thus constituted an unconstrained space offering free interaction. (Mitchell, March 1995).

The Street systematically examines people's actions and perceptions, develops a comprehensive typology of social behaviours on the neighbourhood commercial street and provides a thorough inquiry into the social dimensions of streets. Vikas Mehta shows that sociability is not a result of the physical environment alone, but is achieved by the relationships between the physical environment, the land uses, their management, and the places to which people assign special meanings. (Mehta, The Street: A Quintessential Social Public Space, 2013)

The notion of publicness was therefore narrowed down to two most critical parameters based out of literature review, contextual readings and primary assessments relevant to this research. These two parameters are Accessibility and Sociability. Thereafter, an assessment framework was formulated for both these parameters using three pillars, two from literature by (Mehta, The Street: A Quintessential Social Public Space, 2013) (L1) and (Ahmed Abdel-Rasoul P. S., 2017) (L2) and third from the primary data (P3).

Public spaces have distinct features that can't be found in any other spaces dedicated to personal or local publicness use. They are accessible, socially diverse, and mediating spaces between exclusive spatial-territories of the distinct communities. (Ahmed Abdel-Rasoul P. S., 2017) Therefore, the third pillar of contextual understanding in the assessment framework is critical and needs to be developed based on local characteristics, nature of use, user groups, demographic and socio-cultural aspects.

5.1 Accessibility Index:

The most important quality of a public space is an equal right to access and use the space. Although, the primary ownerships of space remain with civic bodies, the users participate in this lived reality[10] with useable rights to access in a stewardship (Jan Gehl, 2013) role. (Ciraci, November 2015) discusses the definition of 'Public' basically refers to people as a whole, being open and accessible to all. Hence, public space is the place of all members of a community regardless of socio-economic or cultural differences. (Ciraci, November 2015). (Sadler, 1998) refers to rights of "ordinary people" to make their own choices of objects who also enjoy a material world of change and spontaneity. The figure 27, illustrates the framework formulated for accessibility index.

"a set of behaviors and cognitions a person or a group exhibits, based on perceived ownership of physical space." So, ownership could be entitled as a legal power over a property, however this power could be exist without legal ownership too. (Ahmed Abdel-Rasoul P. S., 2017)

The accessibility also includes the sense of ownerships and stewardships to the space. As discussed in the statement above by (Ahmed Abdel-Rasoul P. S., 2017), the study also analyses these set of behaviors which impact the nature and use of spaces.
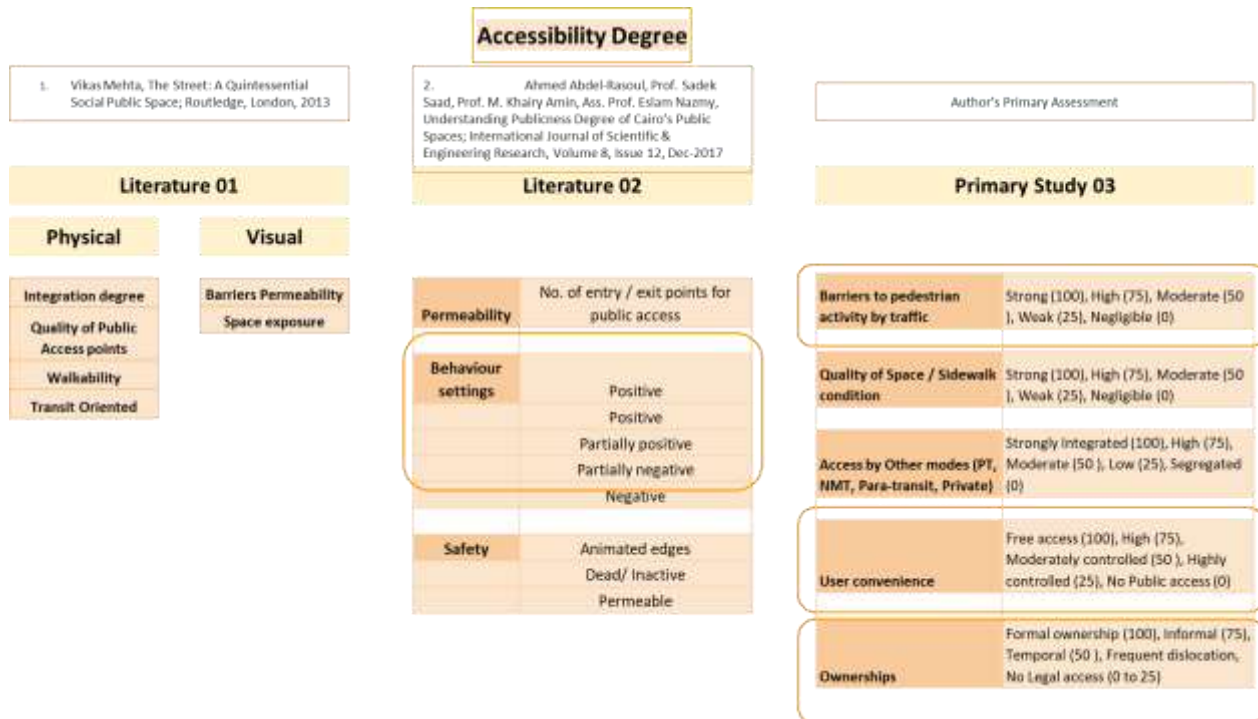

Figure 27: Framework of Accessibility degree

The literature by (Mehta, The Street: A Quintessential Social Public Space, 2013) emphasized on physical and visual aspects, where as (Ahmed Abdel-Rasoul P. S., 2017) 's paper on degree of Publicness in Cairo delved deeper into idea of permeability, behavior settings and safety aspects. For the third pillar of framework derived from primary study (03), included elements of protection from vehicular traffic, sidewalk conditions, integration and access by all modes of transport. The parameters on user convenience and ownerships were included in this framework since these were non negotiable qualities and were identified as major gaps in current condition of street use. The user convenience includes provision of barrier free access which was found negligible and it was not inclusive for all. Presence of safety barriers, traffic calming devices for vehicle speed reductions were also accounted since pedestrians had to negotiate through parked vehicles and adjoining to moving vehicles.

5.2 Sociability Index:

The sociability is identified as the second most influencing factor for invigorating places and thereby enhancing publicness. Social attributes of a public space impact the degree of publicness and therefore were considered as an essential component. (Ciraci, November 2015) also discusses "interpersonal communication" (Madanipour, 2009), formulation of public opinion, social interaction and the arena of democracy (Parkinson, 2012) as key attributes of public spaces. The visually looking social and vibrant market street was critically reviewed in terms of the elements which aid the phenomenon of sociability like benches, walkway, pause points etc. The third pillar of framework illustrated in figure 28, based on primary study, questioned the presence of these elements through parameters like edge conditions, shade and comfort, seats, attractiveness of space and sensory aspects. User convenience also needs

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[10] John Chase, Everyday Urbanism, 1999

to be prioritised in streets. It was inferred as a major provisional gap, which would enhance the sociability and user convenience.

The Street systematically examines people's actions and perceptions, develops a comprehensive typology of social behaviors on the neighborhood commercial street and provides a thorough inquiry into the social dimensions of streets. Vikas Mehta shows that sociability is not a result of the physical environment alone, but is achieved by the relationships between the physical environment, the land uses, their management, and the places to which people assign special meanings. (Mehta, The Street: A Quintessential Social Public Space, 2013)
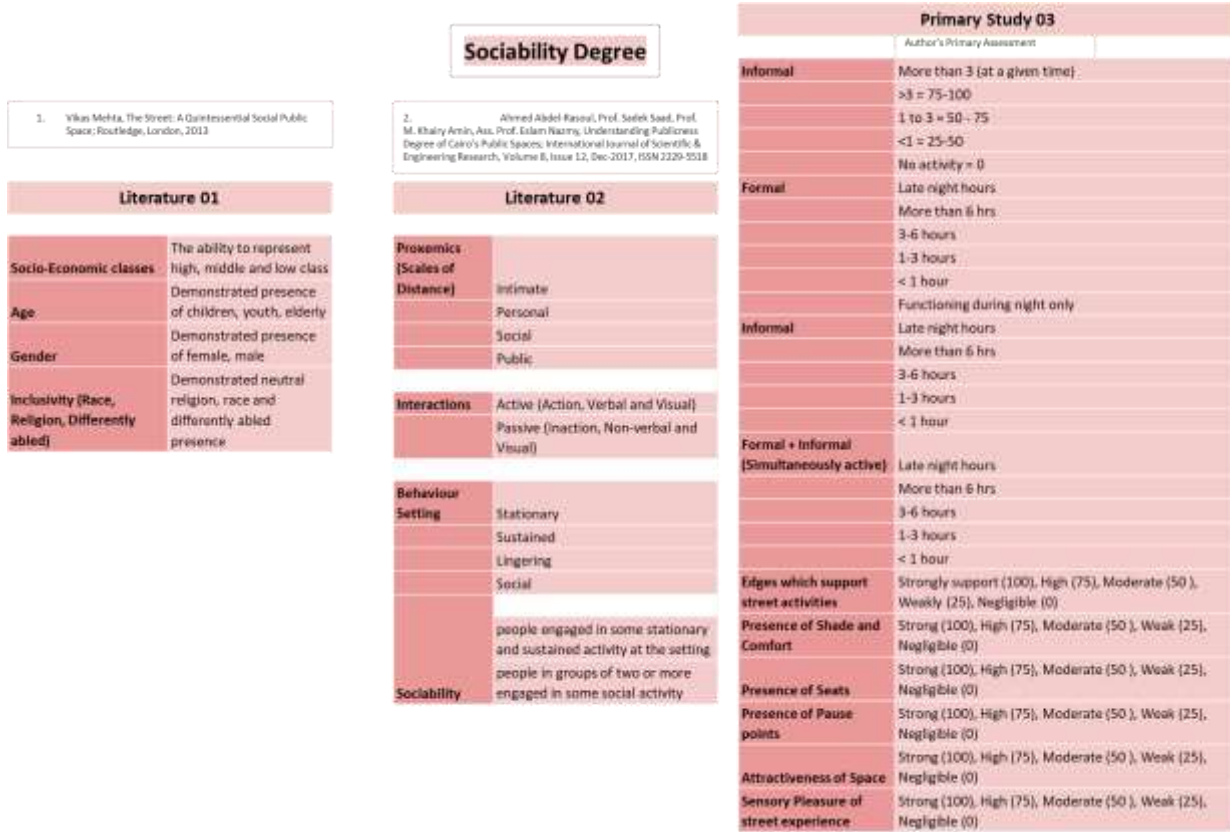
Figure 28: Framework of Sociability degree

6. Research Outcomes and Conclusions:

A scoring method with the help of these frameworks, was conducted to quantify the qualitative studies and develop an index. There were scoring benchmarks which were subjective to each of the parameters which were computed to derive a cumulative score for each category. There is a background research and computing scoreboard which is an extensive trial and testing activity which was performed as a precursor to deriving these cumulative scores.
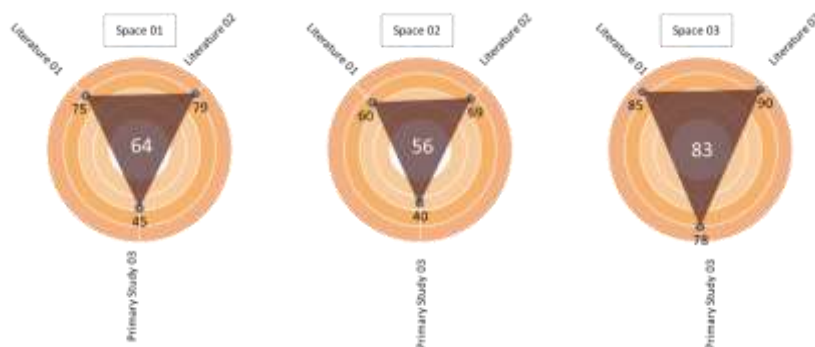

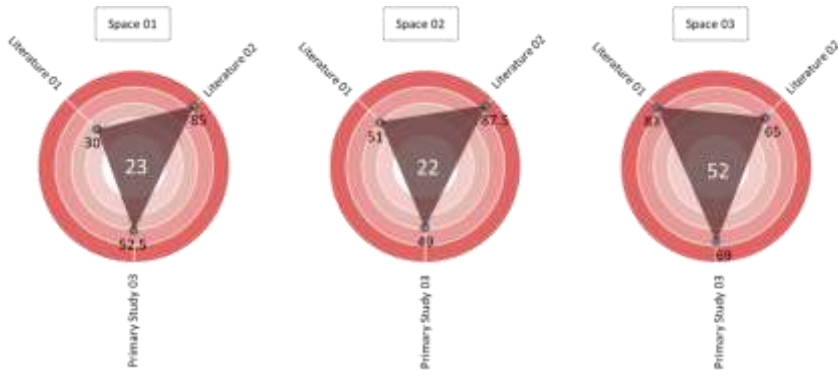**Figure 29:** Accessibility Index values

The figure 29 and 30, indicates the overall scores (mean average value) for three identified spaces based on three frameworks. The spaces have reflected index values out of 100. The concentric circles are graded in range of 0, 25, 50, 75 and 100 (from centre to out) followed by (Mehta, The Street: A Quintessential Social Public Space, 2013).

Figure 30: Sociability Index values

The space 03 abutting the park edge with a plinth has scored highest in terms of degree of accessibility, however has reduced scoring of 52 in sociability. The reason also depicts the walking edge conditions, absence of benches, pause points with shade and comfort as well as experiential quality in terms of space making.
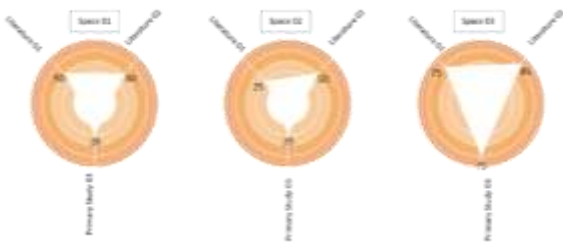
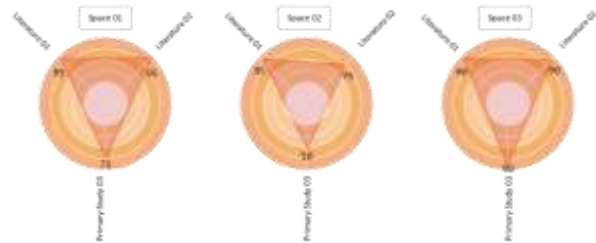
Figure 31: Low scoring benchmarks for Accessibility Index

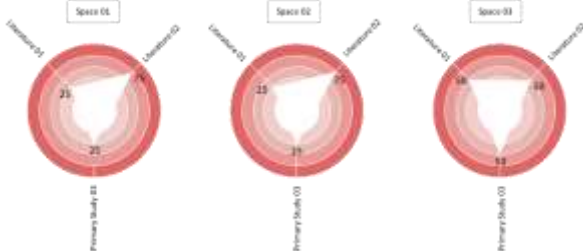**Figure 32:** High scoring benchmarks for Accessibility Index

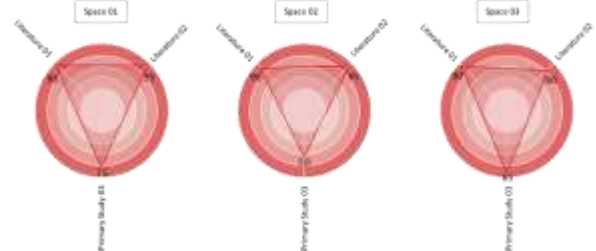**Figure 33:** Low scoring benchmarks for Sociability Index

Figure 34: High scoring benchmarks for Sociability Index

The table 1 and figure 31 to 34, indicates the scores received by the three spaces for degree of accessibility and sociability assessments. There were two scenarios identified to conduct the gap assessments within the site level benchmarks. This study can be expanded in comparison with prevalent best practices and hence may be considered as first steps of indicators. The intention is to derive a methodology or an assessment framework which can be tested, applied and improvised in terms of enhancing the degree of publicness of spaces. The figure 35 and 36, indicates the gap assessments and hence would aid the process of decision making and initiatives required to improve the score. The framework may be elaborated in subsequent stages of research and each city may develop their index for analysing public spaces and channelizing their initiatives, strategies and investments.

This pilot assessment also lead to indicators of corrective measures which are recommended to enhance the publicness of the space. The space scored low in terms of safety and inclusivity. Elements of street design like pedestrian ramps, bollards, guiding elements like tactile blocks and signages for barrier free access, safe navigability need to be introduced. Shading devices, modular elements for street vending through tactical urbanism strategies may aid the process of folding and unfolding of street activities based on the multiplicity of use. The street also has a potential requirement of pausing areas and hence provision of benches overlooking the street activities with shade and comfort would be inviting for all age groups especially the senior citizen.

Table 1: Overall scoring of Publicness Index

| Degree	Index Score																				
	Space 01							Space 02							Space 03						
	Mean value method	Scenario 01: Low scoring benchmarks			Scenario 02: High scoring benchmarks			Mean value method	Scenario 01: Low scoring benchmarks			Scenario 02: High scoring benchmarks			Mean value method	Scenario 01: Low scoring benchmarks			Scenario 02: High scoring benchmarks		
	L1+L2+P3	L1	L2	P3	L1	L2	P3	L1+L2+P3	L1	L2	P3	L1	L2	P3	L1+L2+P3	L1	L2	P3	L1	L2	P3
Accessibility	64	50	50	25	95	95	75	56	25	50	25	95	75	50	83	75	85	75	95	95	90
Sociability	23	25	75	25	95	95	75	22	25	75	25	90	95	50	52	50	50	50	90	80	85
Note:	1. **L1** – Scoring based on framework parameters by Literature 01																				
	2. **L2** – Scoring based on framework parameters by Literature 02																				
	3. **P3** – Scoring based on framework parameters by Primary study 03																				
	4. All values are out of 100 in grade slabs by (Mehta, The Street: A Quintessential Social Public Space, 2013)																				
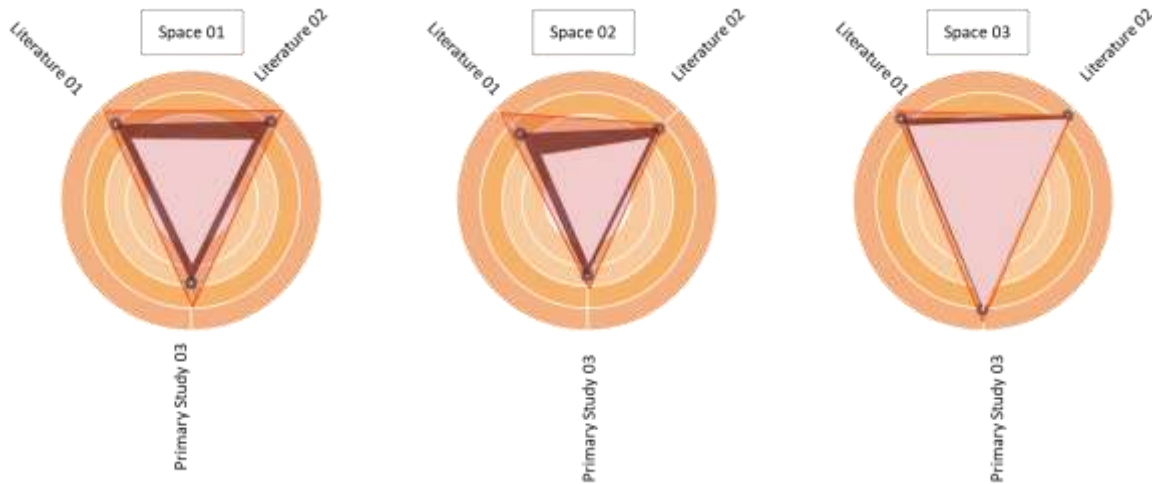
Figure 35: Gap assessment (scenario 1 and 2) for Accessibility Index
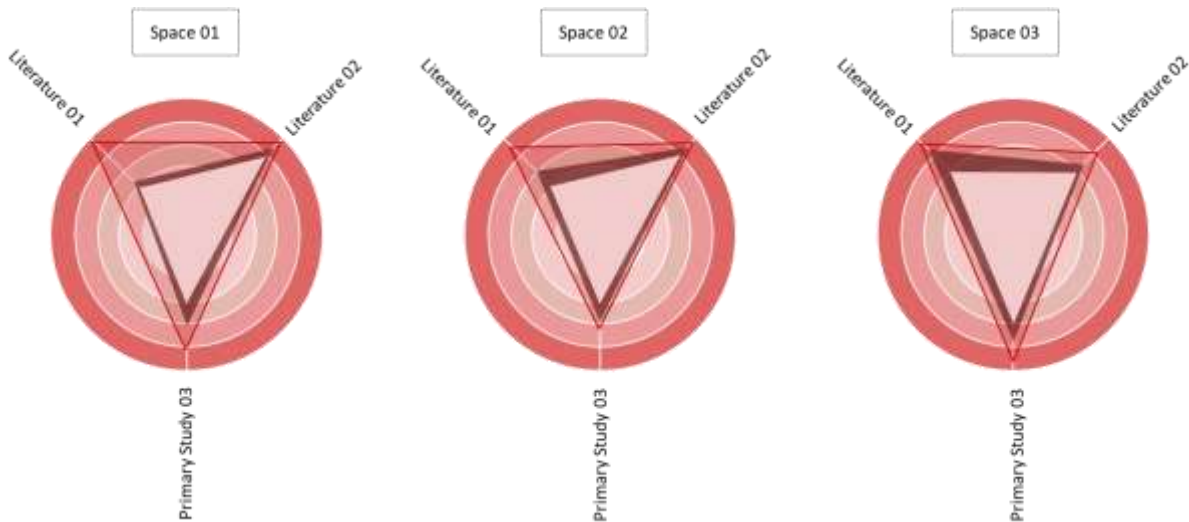

Figure 36: Gap assessment (scenario 1 and 2) for Sociability Index

In addition, there are passive users who are not there for dedicated shopping activity and hence perform as accompanying someone, lingering or loitering in the space, onlooker or observer to the space who also play a vital role in keeping 'eyes on street' (Jacobs, 1961) and hence providing street furniture like seating areas in clusters would attract stationary user groups to enhance the safety and surveillance, while the buyers and sellers of street vending are engrossed. These strategies would be effective in extending the degree of publicness during the non functional hours of street vending as well. The low scoring components derived through the framework and reflect in table 1 as an outcome, can be prioritized for immediate attention leading to strategic actions for improvements. This serves the intent of this research and aids the process of informed decision making in enhancing the degree of publicness.

Conflict of Interests
The Author declares that there is no conflict of interest.

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