Mobility Experience of Urban People: An Interpretative Study on Street Hawking Activities in the Urban Spaces of Dhaka City

Abontika Sara Israt
Faculty of Architecture and Planning, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

Abstract-This paper highlights the issues and problems associated with mobility and accessibility relating to informal street hawking in the urban spaces of Dhaka city. Mobility and accessibility is the foremost concern of a place that acts as a direction for the passer by. This is one of features that have a significant impact on users’ perception. The urban informal sector is a vibrant section of the urban economy worldwide. An organized street hawking in the urban spaces could be part of city precedence for the benefit of the city community. To evaluate the influence of mobility and accessibility in using the urban public spaces a multiple sources of evidence, which included the questionnaire survey and physical observation, were carried out in two study areas in Dhaka city. This study used a case study approach to make a comprehensive understanding of the current condition of street hawking in the city. Good accessibility is directly related to the uses thoughts and experiences; however, these elements could not cast a positive light on the walking or selling experience for this study. This study revealed that poor accessibility is a major hindrance affecting the use of the pedestrian environment of Dhaka city. The findings revealed across the case studies confirmed by the condition where poor facilities are seen. This study shown 50.8% of the respondents felt there are several problems with the walkability, street view, traffic congestion and parking space and so on. Data synthesis indicates that, there is no noteworthy difference between questionnaire and observation surveys to perceive accessibility issues. The findings discovered that the studied areas are in a vulnerable condition according to the identified issues. As vehicular space increases, pedestrian allocated space decreases resulting in pedestrian marginalization from city spaces and increased traffic congestion, accident and other fatalities.

Key words- Mobility and Accessibility, Street Hawking, Urban Public spaces, Place Making, Dhaka

I. INTRODUCTION

Urban space is the phenomenon of urbanization due to the growth of cities. It is one of the inseparable part of the spatial structure of a city comprises of squares and streets which define so many functions associated with it (Krier, 1979). The street hawkers, market square, shop frontage even the sidewalk cafes’ worked as a terrain of social interaction and an intimate part of a city’s transaction which is associated with public realm of urban space (Montgomery, 1998). More recently, sociologists, geographers and political scientists, along with the urban designers, are focusing on the urban public spaces as leading towards the healed public realm in cities. However, in the modernist planning, the focus has been on the requirements of cars rather than the needs and expectations of pedestrians, and therefore, cities have lost many qualities that they used to have in the older precedents. This has negatively affected the quality of daily life in cities (Oktay, 1990). Alternatively, urban informal sector is one of the most vibrant sections of urban economy of an urban space of the city. But the definitions of urban informal sector proved it as negative settings in the urban spaces, like, Urban informal sector is known as an unbalanced economy (Ferman & L.A, 1973), the underground economy, the black market (Rakowski, 1994) and the hidden economy (Frey & Pommerehne, 1984). Yet, the urban informal sector divide in many sub divisions, from that point of view, this study concentrated on informal street hawking only. Street hawking is one of the prominent features of urban public spaces, as well as it is one of the survival strategy for the urban poor. However, integration of informal street hawking in the urban public spaces always exaggerated by negative perceptions of the local authority and city dwellers as well (Bhowmik, 2005). The International Labor Office (ILO) states that one of the main issues surrounding the regulation of street trading is the regulation of public spaces since these spaces are theoretically open for all to use and enjoy indiscriminately. The ILO also found difficulties in balancing the right of access to public spaces and the need to move about in the city, on the one hand, and the right of street hawkers to work and earn a living, on the other. ILO specifies that the use of public space needs to be legally secured in order to facilitate street hawkers stability and reduce their uncertainty. Often, regulation concerning the use of public space has been unclear or contradictory. Sometimes, there may even be competing claims regarding which authority regulates public spaces (e.g. Municipal authority vs. Government). To resolve the difficulties, the subject matter of this study has focused on the accessibility impact of informal street hawking in the urban public spaces of Dhaka city for making a sustainable city community. From the perspective, this study aims to conceptualize a set of theories and concepts, criteria for the responsive public spaces which will support the mobility and...
accessibility issue concerning street hawking in the urban life of Dhaka.

Urban design is the discipline through which planning and architecture can create or renew the sense of local pride and identity. Urbanism is more than just designing or making plans for buildings in cities. It is all about the process of designing and shaping the cities, towns and villages (Boeing et al., 2014). It describes the physical features, characteristics and image of a street, neighborhood, community, or the city as a whole. Urban design is the visual and sensory relationship between people and the built and natural environment (Moughtin, 2003). The Department of Environment, Transport and the Regions, UK gave a definition (in Planning Policy Guidance Note 1: p12), ’Urban design is ‘the relationship between different buildings; the relationships between buildings and streets, squares, parks, waterways and other spaces which make up the public realm; the relationship of one part of a village, town, or city with other parts; patterns of movement and activity which are thereby established; in short, the complex relationship between all the elements of built and un-built space’. Urban design recommends the necessity to ensure the built environment to contribute the quality of livability of the city (Macdonald, 2005). Similarly, Jacobs and Appleyard (1987: 18) states the importance of physical design in fostering the various aspects of livability. They had indicated, ‘most people want a kind of sanctuary for their living environment, a place where they can bring up children, have privacy, sleep, eat, relax, and restore themselves. This means a well-managed environment relatively devoid of nuisance, overcrowding, noise, danger, air pollution, dirt, trash, and other un-welcome intrusions’.

For the purpose this study, the author borrowed from the planning and design literature to define the quality of urban public spaces as the outcome within the physical settings that foster the social stability and equity, personal safety and comfort, good pedestrian environment of the city community. All these features include the characteristics of an area, walking access to different amenities, and a presence of nature. A community must be livable in order to be sustainable for its residents (Aranoff et al., 2013). Though the subject matter has been approached as the “Interpretative study on Mobility experience of urban people” to determine the criteria and basic characteristics of successful public spaces as perceived by the users’ of it.

A. People as the User of Urban Space

According to Francis Tibbalds (1992), every part of urban fabric considered as public realm where the people have physical and visual accesses. Walzer added, in public space we can meet people who are our friends, relatives or even with the strangers. Accessibility and activity is the primary indicator of about public spaces (Madanipour, 1996). Two major forms could analyze the ‘Urban public spaces’, those are the streets and the squares (Jalaladdini, 2012). In the urban public spaces, people’s public life take place with the functions around it, such as, diversity of choices, uses and activities including walking, relaxation, shopping, passing time for daily activities and cultural events or festivals.

Special events and festivals organized by town or local centers in public spaces encourage people for comfort and enjoyment. Spontaneous street entertainment can make a place more interesting. Generally, people like to stay somewhere comfortable to sit with some weather protection. While designing public spaces, it is important to ensure not only physical accessibility, but also the safety and security of the space, public facilities like, toilets, provisions for children and elderly people, adequate parking spaces, etc. (Caroline H. et al., 2007). Carr (1993: 344) states, “In a well-designed and well-managed public space, the armor of daily life can be partially removed, allowing us to see others as whole people. Seeing people different from oneself responding to the same setting in similar ways creates a temporary bond.” Eventually, successful urban spaces are the ones that are well-designed and well-managed which brings successful urban life for the people by enhancing their quality of life in the public domain. Finally, a well-designed and properly managed space which enhances the quality of urban life should define as successful urban spaces.

In recent days, urban planners concentrated on the requirements of cars and taking different initiatives and arrangements rather than pedestrian spaces due to the increasing traffic efficiency. However, to provide liveliness in urban areas it is most important to focus on pedestrian environment rather than vehicular environment. ‘Lost space’- a new term has been described for modern city by Trancik (1986), which is in contrast with the enclosed or positive space and have negative impact on the use of urban spaces. He had identified the impact and marked as undesirable pedestrian conditions that are in need of redesign for the benefits of city community. Moreover, many scholars and researchers had described the importance of the circulation of pedestrian walkways in urban spaces, such as Oktay (2002), Siksn (19995, 1998), Jacobs (19994), Jo (1998) and Montgomery (1998)

The quality of life of the residents has been hindered due to the effect of the deteriorating condition and transformed the urban areas into inhuman spaces. As a small city like Dhaka is not an exception. The new streets of Dhaka city are mainly utilized as movement channels rather than enhancing the social life. Thus, it expresses the low concern for social needs. However, the areas are still working due to ‘no other place to go’ for the users’ of it. This study explores the issues and problems associated with the physical settings of the two selected places of Dhaka city.

B. Walkability or accessibility in the urban space

The user of urban space is a person walking, living or relaxing in specific spaces. It is also defined as a person travelling from place to place by foot or using other mobility aids and termed as ‘pedestrian’ (TRL, 2006). According to Gehl
pedestrians are the integral part of outdoor environment including walking and other activities. In every developed economy, cites are the center of economic activity and provide numerous job opportunities. The city brings together businesses, workers, and customers into close physical proximity, which leads to enhanced productivity, more efficient markets and greater economic success (Eberts, 1994). Thus, it drives people to the city center for the greatest concentration of formal jobs, however, low skill and uneducated people get involved in the informal job such as hawking, begging etc. Majority of this people occupy the movement spaces with their stuffs from morning to night. Yet, what should be pointed out is that users’ still use these spaces due to their basic needs.

The effective walkability or accessibility in the urban space is elaborated by Gehl (2004) and Southworth (2007). They had identified five criteria is essential for the users in the pedestrian environment, such as comfort, safety, connectivity with variety of routes and pathways and sufficient physical facilities. The environment is considered friendly if the users’ age variance, ability, experience and comprehension are taken into account (TRL, 2006). Barton (1998) suggests that street, sidewalks, footpaths, routes, alleys, boulevards, etc. are the main components in the public realm that allow users with different activities. He highlights that elements of design such as road widths, sight lines, gradients and curbs are vital for the accessibility and safety of the users. According to Southworth (2007) and Pikora (2003), accessibility to transit shops, as well as presence and connectivity of the pathways are also part of a pedestrian environment. Within this, users have opportunities to be in visual proximity with buildings and the surroundings environment (Gehl, 1987).

II. METHODOLOGY

This research employed a case study approach to delineate the users’ perception of the physical attributes relevant to informal street hawking. The sample size derived for this research stands at 400 based on the formula from Taro Yamane (1967) and the published sample table from Krejcie&Morgan (1970). To obtain maximum variation of the respondents the researcher has used the convenience sampling strategy to make it quicker.

The units of analysis for this study are the users and the urban public spaces. Nevertheless, the users’ are classified into two groups; they are the street hawkers and the customers who visited in the particular area. Yet, the street traders were selected based on the types of commodity sold (i.e. food, goods, service), whereas the customer were selected based on their availability on the streets and frequency of buying goods from the street sellers. Multiple sources of evidences were used, for investigation including, questionnaire and survey through observation to analyze two contextual areas. N=400 respondents were involved from two study areas of Dhaka city for the questionnaire survey. Thus the users involved with this activity were then divided equally for both sites (see Table 1). This application enabled the study to plan as well as to refine its routes to go in the right direction, and to apply appropriate research instruments at a particular time and place.

### Table 1: Selection criteria and Distribution of respondents among the studied areas

<table>
<thead>
<tr>
<th>Types of User</th>
<th>Respondents selection criteria</th>
<th>No. of Respondents in each site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Hawker</td>
<td>Variation in commodity sold (i.e. food, goods, service)</td>
<td>100 100</td>
</tr>
<tr>
<td>Customer</td>
<td>They have to be over 20 years of age</td>
<td>100 100</td>
</tr>
</tbody>
</table>

Total = 400

The questionnaire survey involved a series of structured questions to obtain information of four attributes of public places in relation to street hawking to get a complete overview of the current scenario. These attributes were deduced from literature and grouped into categories to gather substantial data on, sociability, uses and activities, access and linkage and physical safety, comfort and image across the studied areas based on user’s perception and desires. The data were analyzed through descriptive statistical measurements of percentage and central tendency. This study used likert scale for analyzing descriptive data. This type of data suggests calculating the Median (average response) in search for the central tendency of each set of data (Brown, 2011; Maurer & Pierce, 1998). Before further analysis, the reliability of this survey was tested to determine the manner in which each sub-variable/sub-components effectively grouped together using SPSS. The reliability of the questionnaire instruments was tested using Cronbach’s Alpha. In this study, the alpha ranged from 0.69 to 0.85, which signifies that there is good for strong reliability within the 27 questions instrument (see Table 2). Survey through observation was also performed to validate the evidence through triangulation.

### Table 2: Reliability Statistics of Research instruments (questionnaire on attributes) in Case study 1 and Case study 2

<table>
<thead>
<tr>
<th>Attributes of public spaces</th>
<th>Components of attributes</th>
<th>No of measuring elements</th>
<th>Street Hawker</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access and linkage</td>
<td>Mobility and Accessibility in and around the area</td>
<td>4</td>
<td>.686</td>
<td>.789</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case 01</th>
<th>Case 02</th>
<th>Case 01</th>
<th>Case 02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
<td>Cronbach's Alpha</td>
<td>Cronbach's Alpha</td>
<td>Cronbach's Alpha</td>
</tr>
</tbody>
</table>

.796 .774
III. RESULT

A successful public space must have the quality of easy to get to and get through and is convenient to public transit. The space should function for people with special needs, also there should be a good connection between the adjacent buildings and street stalls and it should provide proper transportation system as well.

The users’ perception of the elements of mobility and accessibility related to street hawking are examined under the categories of walkable space, street view, traffic condition and parking spaces. In this section, both quantitative and qualitative study placed in sequence to understand the current scenario.

Table 3: Access and Linkage elements across Case study 1 and Case study 2

<table>
<thead>
<tr>
<th>Name of the Attribute</th>
<th>Components</th>
<th>Measuring Elements</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility and Accessibility in and around the area</td>
<td>Walkability of the public</td>
<td>Relph (1976), Lynch (1981), Gehl (1987)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Traffic congestion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parking space</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) Findings on ‘Mobility and Accessibility’ using Quantitative method

At this point street hawkers and consumers were questioned from both studied areas to state their perception on mobility and accessibility in and around the areas. Figure 1 indicates the street hawkers’ perception and 2 revealed the perception of the customers, which are counted through the degree of agreement with the asked questions from the survey.

The scale of users’ perception is below average which is counted through the median value to get a central tendency of agreement with the queries. The user’s identified negative impression and dissatisfaction with the places. Around 22% of the street hawkers from Case study 1 posed that the inappropriate placement of stuffs creates massive traffic congestion and about 28% of the customers agree on the disruption of the walkability of the pedestrians both in peak and non-peak hours. Users of Case study 2 stated similar problems. The users’ think that, the inconvenience created directly to the passersby and indirectly to the vehicles because of the illegal occupation. Nevertheless, they visit the place frequently for their daily needs, marked the traffic congestion, walkability problem, inadequate parking space and so on as a barriers for mobility and accessibility.

Figure 1: Street Hawkers’ perception on Accessibility of Case study 1 and Case study 2

Note: N=200. (Equally distributed in each area)

*Response format: 1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= strongly agree

Figure 2: Customers’ perception on accessibility of Case study 1 and Case study 2

Note: N=200. (Equally distributed in each area)

*Response format: 1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= strongly agree

Comparison of correlation analysis

The problems that were identified regarding accessibility and linkage in both case study areas have significantly correlated each other. This section has tested to prove whether there is any positive relation between the accessibility and quality of the areas which can be beneficial for a live urban public space. Results show that, in this study, the above identified problems had significant correlation with both studied areas. It should be noted that the correlation coefficient analysis between the identified problems and the current condition of the studied areas are weak but positive.

Figure 2 shows, people perceived that the poor mobility and accessibility features intensely affect the quality of the areas. It also indicates, there is a positive and very close correlation coefficient exist within the both case study areas, such as, the problem of placement of hawkers’ stalls on footpath shows the coefficient of determination, r=0.329 (+) in case 1 and
r=0.277 (+) in case 2, which are very close to each other, which indicates the improvement rate will be very similar for both cases. The other identified problems meaning to the same here. This confirms, if the variables, those are used for identified accessibility problems, taken to be solved in a proper and adequate manner, the probability of quality of the studied areas will be enriched and evidenced of the significance of informal street hawking is strongly associated with the buyer and seller.

Table 4: Comparison of correlation analysis of two studied areas

<table>
<thead>
<tr>
<th>Identified Accessibility and linkage issues</th>
<th>Quality of urban space</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Case study 1</td>
</tr>
<tr>
<td>The placement of hawkers’ stall placed properly on the street, which never disrupts the walkability of the public</td>
<td>0.329</td>
</tr>
<tr>
<td>The hawking activity has created a clear overview of the street</td>
<td>0.172</td>
</tr>
<tr>
<td>The placement of hawking stuff, not ever create traffic congestion</td>
<td>0.192</td>
</tr>
<tr>
<td>Adequate Parking space satisfies the users</td>
<td>0.208</td>
</tr>
</tbody>
</table>

Note: Correlation is significant at the 0.05 (*) and is strongly significant at 0.01 (**)

b) Findings on ‘Mobility and Accessibility’ using Qualitative method

The studied areas are the busiest areas of Dhaka city. The specialty of these areas has made them the gathering place for street hawkers. They allegedly give tolls to police for smooth running of their business. Hawkers have occupied the areas to such an extent that it has become difficult for passersby and vehicles to move. Sometimes they are forced to use the main road. To evaluate the ‘Mobility and Accessibility’ features in and around the studied areas, qualitatively, the identified attributes were used as variables and were observed and examined (refer to Table 3).

i. Placement of Hawkers’ stalls and walkability of the public

The street stalls have no instructions for their placement in both cases. Therefore the hawkers’ placed their stalls not only on the footpath but also on the road. Sometimes they occupied the rickshaw and bike lane too. Hawkers’ use temporary shade and structure for stalls which help them to move easily around the areas while inspection. Therefore, they disrupt the walkability of the pedestrians. People do face difficulties in moving around the surrounding area because of the narrow walkway left by the hawkers’, poor access to surrounding buildings, illegal parking, etc. Moreover, people are unwilling to use the foot-over bridge and use the road as crossing because the hawkers’ occupied the bridge as well and left no space for the passerby.
ii. **Street view**

The public generally want a good environment that leads easily to and properly connects locations within the site. The studied areas of Dhaka city are unable to provide any good city image to its dwellers. The urban public space loses its quality due to lack of management system. The streets are used here only for business purpose. There are absences of interesting items, like, multicultural and architectural elements that can be seen along the pathway on the sites which could give added value in the urban public spaces.

In this study, patterns have emerged from the findings in the form of accessibility and mobility investigation, from the first stage of data analysis within the individual cases. This section discussed on data triangulation synthesis, which is undertaken in the second stage to integrate the elements of attributes of public places across case study 1 and 2, named, ‘accessibility and linkage’. This is done in order to search for patterns that can generate new insights and uncover patterns that may not be immediately apparent in the first stage of the analysis.

Results revealed that, the above data corroborated both questionnaire (Mobility and accessibility features, Figure 1 to 2 and lower median score) and observation (similar remark from both areas in Figure 3 to 9) findings. The indications revealed that the elements of mobility and accessibility features were not of quality condition and these are in need of proper up-gradation. The data findings from both techniques are discussed as below:

- Users’ raised many issues about poor connectivity and accessibility especially related to informal street hawking in the public spaces. The unorganized placement of hawking stalls disrupts the walkability of public. People agreed that when walking between destinations, there is no easy access, which forces pedestrians to walk on road. There is also obstruction due to poor site maintenance.

- There is a general agreement among people on the need for good street view with variety of other uses, like, street activities with organized hawking, events, relaxing, etc.

- Car traffic environment with illegal traffic activities poses as an unsafe environment which causes insecurity among the pedestrians. It is in need to give adequate parking space according to city planning rules and take actions against illegal parking.

Among the suggestions made by the users’ during the questionnaire survey were improvements to pedestrian facilities such as widen footpath, user friendly environment, safety, policy and legalization, permanent place for street hawking and so on. The findings revealed that there is a general agreement among users’ about the need for improvement of the quality of pedestrian spaces which needs better maintenance. All users’ placed emphasis on the responsibility of the parties involved in getting the right conditions for the public spaces.

**IV. CONCLUSION**

This study explains the significant findings highlighting the areas of issue that need to be addressed for quality urban public space. The urban design elements were thought through in the master plan from the early stages; thus the overall pedestrian environment is friendly to users. The vision of turning Dhaka city into a livable city by 2020 should encompass activities on the street level especially with regard to the users’ of the street and the built environment. There are a number of rules and regulations have been introduced by the
authorities for the betterment of the city community after the independence. But it is a very common incident that people and also the authority do not follow those plans always. New developments are always taking place in Dhaka City without any coherent road system. It is necessary to adapt a system where relevant authorities can receive feedback on the intervention and the best way to achieve this is through a deep perception research of the users. This study attempts to link mobility and accessibility issue regarding street hawking with a range of life quality issues. In order to enhance the livability of Dhaka City, healthy urban designs, planning, and facilities must be developed through improved governance and management.

REFERENCES