

The Impact of Street Vendors on Social Sustainability of Public Places: The Case of Khulna City in Bangladesh

Sourav Zaman¹ & Nafia Nawreen Ahmed²

¹Department of Architecture,
Bangabandhu Sheikh Mujibur Rahman Science and Technology University,
Gopalganj, Bangladesh.

²Department of Architecture, Northern University of Business and Technology,
Khulna, Bangladesh.

write2souravzaman@gmail.com¹

[nafiahmed.arch01@gmail.com](mailto:nafiaahmed.arch01@gmail.com)²

Abstract

Streets, pathways and their nearby leftover spaces in developing countries often serve as significant public places where vendors work. They retain public gatherings by offering numerous commercial activities in these spaces. Informal street vendors usually develop their businesses near the public domains. While serving their own purposes of income generation, they also foster social interaction and cohesion. However, due to the informal nature, their contributions towards civic engagement in public places is not recognized. In fact, often governments consider them as unwanted elements in the cities. In the light of the new Urban Agenda and Sustainable Development Goals (SDG 11) which seek to create better public spaces for all people, this issue can be looked at as being positive rather than negative.

In this social context, this study aims to understand how the vendors affect the overall utilization of open public places. It examines five different places of Khulna city, in Bangladesh. A mixed method survey was carried out among 150 vendors and their clientele regardless of age, gender, and social class etc. The study shows their role in redefining the functions of these places in the urban fabric, creating a sense of belongingness for the customers, ensuring safety and by attracting a huge influx of people of different classes.

This paper concludes that the performance of street vendors ameliorate the overall social sustainability criteria of those areas by bringing people together and add new dimensions to the streets while extending the boundaries of the public places. They contribute not only to the informal economy but also improve the larger picture by enhancing social sustainability of public areas.

Keywords: Public place, Street, Social Sustainability, Street vendors, Khulna city.

Introduction

The issue

Public places are regarded as multi-functional spaces that promote social cohesion and economic exchange for all classes of people (Deore, 2019). The presence or the absence of appropriate public spaces affect the quality of living of the people. In Bangladesh, the streets, pathways and their surrounding spaces work as public spaces due to the lack of formal ones. In fact, rapid migration from the urban fringe and the rural areas and lack of formal income sources have given rise to the arrival of street vendors in the streets and open spaces of Khulna city in recent years. Their presence connects the leftover spaces with the people, and upgrades the usability of those spaces.

Street vending is a major livelihood for the urban poor in developing countries and a considerable share of revenue generation. Street vending involves the production and exchange of goods and services outside the legal frameworks (Cross, 2000), creating affordable options for the consumers. Street vendors contribute to enrich a place socially sustainable by being flexible, and interactive while acting as informal surveillance.

Sustainable Development Goal 11 and the New Urban Agenda focuses on creating urban areas and cities inclusive for all, safe, resilient and sustainable. Given this background, this article illustrates the current state of street vending and conceptualizes “social sustainability” criteria for public spaces in this context.

Although a few comments are made on the cultural, temporal and social aspects of street vending, there is a lack of literature that explores these aspects in any great depth. Various researchers have recognized street vendors as key elements of a thriving urban economy and space. In fact, street food has been recognized as having cultural strengths, particularly for its ability to bring life and diversity to the streets (Bromley, 2000; Namin, Najafpour, & Lamit, 2013).

The Place

With a population of more than half a million (Census, 2011) and an urban area of 150 square km, Khulna holds a strong culture of celebrating the streets. There are around fifteen public and private parks covering 0.15% of the total city area, which is much lower than the minimum required space (about 3.51%) specified in the master plan (Karim, 2012). Hakim and Biswas have assessed the present state of publicness of the public spaces around Khulna which shows that those places were “less public” due to post-colonial planning, control and lack of maintenance (Hakim & Biswas, 2018). These spaces could not satisfy the demand of public spaces in the city and due to lack of maintenance, people are less interested to visit them frequently (Khaza, et.al., 2020).

In recent years, Khulna has faced a rapid increase of the number of street vendors in important public places. To maximize the profits, they need greater public exposure. Thus, they are “stuck” in public spaces as mentioned by Manning and Effendi (1999). Nevertheless, their presence in the public spaces can be categorized as an “activity” that strengthens the functions of the urban public spaces (Shirvani, 1985).

The aim of this research is to critically analyze how the presence of street vendors impact different places. In some places, they create an activity as a reason of people’s engagement, while in other areas they prolong the activity hours for people. It particularly searches for different contributions to each of the cases and to apply the social sustainability framework to evaluate their efforts in making those places more sustainable and inclusive.

Review of Literature

Social sustainability of public spaces is a critical issue that has drawn attention from the scholars, policymakers and practitioners. Street vending, as a form of informal economic activity has a significant impact on the social sustainability of public spaces. Street vending is a major livelihood for the urban poor in developing countries and a considerable share of revenue generation. Cross (2000) discusses the contribution of street vendors in the community, which results in involving the production and exchange of goods and services outside the legal frameworks, creating affordable options for the consumers. Street vendors contribute to enrich a

place socially sustainable by being flexible, and interactive while acting as informal surveillance. Several studies have shown that street vending can contribute positively to social sustainability of public spaces. White (1980) defines a street as an integral relation holder with people, terminations and journey. From his revolutionary street life project in the social life of small urban spaces, White (1980) elaborates streets as socially interactive spaces, idea generative buffer, economic activity generator, dine in place etc. He has weaved an integral connection among the life of the plaza, climate, food, street and people focusing on several streets, plazas and public places in America in the 1980s. Later, Chen and Chou (2017) found that street vendors in Taipei helped to create vibrant and diverse public spaces by bringing people from different social and cultural backgrounds together. Similarly, Flores and Alcántara (2018) observed that street vending in Mexico City helped to promote social interactions and community cohesion by providing spaces for socializing and networking. Moreover, street vending can also provide affordable goods and services to low-income communities, which can contribute to the local economy and generate employment opportunities for marginalized groups, such as women and the youth (Roever and Skinner, 2016).

On the other hand, street vending can also create challenges for the social sustainability of public spaces. For example, Otero and Fischer (2016) found that street vending in Ghana created congestion, litter, and other negative impacts on the environment and public health. Similarly, Ugochukwu and Emenike (2020) noted that street vending in Nigeria operated in informal and unregulated settings, leading to conflicts with local authorities, other vendors, and residents. Furthermore, street vending can also lead to the exclusion of some groups from public spaces. For example, in India, street vending has been found to restrict pedestrian movement and access for people with disabilities (Kundu and Bhowmik, 2014).

Despite the growing interest in the social sustainability of public spaces by street vendors, there are still some facts that need to be addressed. More empirical studies are needed on the social and economic impacts of street vending on public spaces, particularly in developing countries where street vending is more prevalent. In fact, studies conducted in the developed countries may not be applicable in developing countries due to the differences in socio-economic, cultural and political contexts. Recently, researchers like Panicjer and Priya (2020), Deore and Lathia (2019), Kundu and Bhowmik (2014) have studied this in India.

Nevertheless, South-Asian countries are often neglected due to the lack of any significant research. Again, there is a need to understand the role of local authorities and regulations in shaping social sustainability of street vending in public spaces. Many have described the above-mentioned limitations and have pointed out the lack of comprehensive empirical studies which specifically examine the social, temporal and cultural significance of street vending. This includes examining the effectiveness of existing regulations and policies, as well as identifying the best practices for regulating street vending in public spaces.

The Theoretical Basis

Social sustainability of public space

The richness of a city is reflected through the availability and diversity of public spaces. As the public spaces carry a variety of people from different social groups, they are what is called, “the window into a city’s soul” (Zukin, 1995). Whenever, there comes the factor of the informal sector, this uncertainty leads to a conflict between the standard livable spaces and the sustainable social spaces. As public spaces, formerly, the open spaces are multi-functional and carry different social classes of people including formal and informal sectors. However, there arise different problems specially with the informal sectors like informal trade sector and the street vendors. Their presence is very visible in the city, such as in the town square and near the downtown and they generally sell on the sidewalks, and at the edges of the stores (Yustika, 2000). One of the activities of the public spaces can be recognized as ‘activity support’, while the activities of the street vendors together with the other activities strengthen the functions of the urban public spaces (Shirvani, 1985). As public spaces reflect the social and cultural life of the urban people, sustainability of those spaces help enrich and enhance the life of both the formal and informal sectors while influencing the visitors’ mental health.

By comparing different frameworks proposed in different research studies and texts on social sustainability such as place making, urban design principles and sociability of public spaces by Calthorpe (1993), Gehl (2010) Jacobs (1961), and Mehta (2014), some important and significant factors affecting social sustainability of public spaces can be identified. They include connectivity, legibility, identity and image of space, inclusiveness, richness, belongingness and participation, safety and security, mixed use, social amenity and services. The diagram represented below shows the factors that influence the social sustainability of public places.

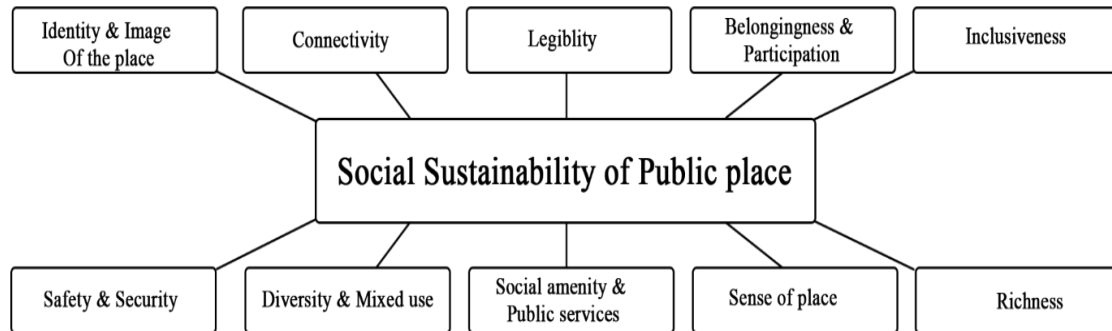


Fig. 1: Parameters for assessing social sustainability of public places.

Source: Author

Conceptualizing social sustainability assessment in public places in respect of Khulna city:

It is known that there are no mainstream or common indicator systems that could simply be applied to the entire urban context (Colantonio, 2010). Despite this, more and more indicator systems have been gradually designed and tested around the globe. In fact, sociologists, policy-makers, urban planners, and urban designers are proposing different frameworks to measure and determine social sustainability of a city. A wide range of themes are found from their studies. The New Urban Agenda emphasizes in providing equal rights of all the people to the benefits that cities can offer. Similarly, UN Sustainable Development Goal 11 (SDG 11) demands access to safe, inclusive, resilient and sustainable public spaces for women, children and older persons and highlights the importance of safe and affordable transport for all with special attention to the marginalized groups: women, children and older persons (The New Urban Agenda Illustrated, 2020). By reviewing NUA, SDG, the framework for social sustainability in Vancouver, GVRD (2004a, 2004b), CoV (2005), the pentagon model of Akcali and Cahantimur and several research on the development of social sustainability and its assessment criteria around the globe, some common indicators have been identified to assess social sustainability of public places in Khulna City.

Table 1: Indicators of Assessing social sustainability of a public place

Source: Literature Survey

Indicators	Considerations	Authors
Accessibility	Accessibility to amenities, job opportunity, affordability, transportation, accessibility to basic services, permeability, proper road connections, accessibility beyond gender, race and age.	Bramley et al.,2009; Bacon et al.,2012; Stender and Walter, 2019; Shirazi and Keivani, 2021; Ancell and Thompson-Fawcett, 2008; Chan and Lee, 2008; Karuppannan and Sivam, 2011; Pitarch-Garrido, 2018; Alipour and Galal Ahmed, 2021.

Participation and Interaction	Interaction to neighborhood, within neighborhood, participation in civic and collective social works, interaction between customer and provider, participation towards economy, environment and society.	Chan and Lee, 2008; Bramley et al., 2009; Landorf, 2011; Bacon et al., 2012; Stender and Walter, 2019; Soltani et al., 2022; Hemani et al., 2017; Larimian and Sadeghi, 2021; Shirazi and Keivani, 2021; Ancell and Thompson-Fawcett, 2008; Karuppattan and Sivam, 2011; Moulay et al. 2017; Loffata and Ataöv, 2019; Soltani et al., 2022
Belongingness	Attachment to neighborhood, participation, quality of neighborhood, urban pattern, sense of attachment, sense of safety, freedom of interaction and cooperation	Bramley et al.,2009; Stender and Walter, 2019; Shirazi and Keivani, 2021; Karuppattan and Sivam, 2011 [3]; Dempsey et al., 2012; Hemani et al., 2017; Loffata and Ataöv, 2019; Larimian and Sadeghi, 2021; Soltani et al., 2022
Safety & Security	Sense of security, antisocial behavior, risk of crime, fear of crime, temporal inclusion, social acceptance, livability, child safety	Bramley et al.,2009; Bacon et al.,2012; Stender and Walter,2019; Dillard, J. et al., 2008; Karuppattan and Sivam, 2011; Landorf, 2011; Dempsey et al., 2012; Hemani et al., 2017; Alipour and Galal Ahmed, 2021; Larimian and Sadeghi, 2021; Shirazi and Keivani, 2021; Soltani et al., 2022
Equity	Gender equity, job opportunities, affordable housing, level of institutional stability and flexibility, access to services, access to civic rights, participation beyond gender, race and age	Bramley et al.,2009; Landorf, 2011; Dempsey et al., 2012; Hemani et al.,2017; McKenzie, 2004
Social Cohesion	Social mix, social interaction, networking, reciprocity, participation, community engagement, social acceptance, relation between policy makers and service providers, cultural amalgam,	Landorf, 2011; Dempsey et al.,2012; Hemani et al.,2017; Stender and Walter, 2019; Chiu, 2003; Colantonio, 2010; Ghahramanpouri, Abdullah, Sedaghatnia, & Lamit, 2015; Bramley et al., 2009; Bacon et al., 2012; Shirazi and Keivani, 2021; Ancell and Thompson-Fawcett, 2008; Karuppattan and Sivam, 2011; Moulay et al. 2017; Larimian and Sadeghi, 2021; Loffata and Ataöv, 2019; Soltani et al., 2022
Identity	Diversity, uniqueness, informal place making, street layout, space quality, meeting places, sitting arrangements, cultural identity.	Stender and Walter, 2019; Shirazi and Keivani, 2021; Colantonio & Dixon, 2011; Dempsey et al., 2011; Yung, Chan, & Xu, 2011
Governance	Perceptions of ability the influence local area; willingness to act to improve area, Objective satisfaction of basic needs; Subjective satisfaction of basic needs.	Bacon et al.,2012; Landorf, 2011; Dillard, J. et al., 2008

Research Methods

By nature, this is an exploratory research which employs a qualitative research approach (Swedberg,2020; Alase,2017). The data were collected using a semi-structured questionnaire as well as one to one interviews with 30 street vendors and customers for each site to generate a clear understanding about their contribution towards the social attributes and places. Various researchers like Smith (2006), Kendall (2008), and Villanwve (1984) have tried to criticize the mixed method which combines interviews as well as questionnaire surveys to visualize more in depth results, and

the identification of the problems etc. along with those that cannot be directly observed. This research employed interviews as a primary method of data collection (Taylor & Bogdan, 1984, Stainback, & Stainback, 1984). It is widely known that interviews are more effective to identify the depth of an issue which is directed right after a questionnaire survey (Marton, & Pong, 2005; Pajares, 1992; Harris et al., 2010). It is argued that only interviews lack the rationality of problems and often go off the track while the questionnaire surveys often result in missing the depth of the problems (Choy 2014) and lowers the respondent rates (Gilbert, 2001).

Sampling and Data Collection:

This research adopted purposive sampling which means that a small number of people were “asked questions in their context & were studied in depth” and the responses were “not wholly pre specified but evolved”. The research focused initially on interviewing at least one vendor providing a particular service in the context of every case. To generalize the findings, vendors ranging from food, vegetables, cloths, juice, local spices etc. were chosen. The same strategy was followed in the case of customers, which ultimately resulted in understanding different genres of problems and finding diverse dimensions of activities. In order to obtain data saturation, it has previously been suggested that qualitative investigations need a minimum sample size of at least 12. (Clarke et al., 2013; Fugard 2015; Guest et al., 2006) Therefore, a sample of 30 was deemed sufficient for the qualitative analysis in each site and at the scale of this study.

During September and October 2021, an intensive survey was performed in Shahid Hadis Park (Recreational area), Ghat no.7 of Bhairab river (transport and storage area), KDA new market (Commercial area), Khulna University Hall road (Institutional area), and Nirala (residential area) with the help of 25 students of the Khulna University and the Northern University of Business and Technology of Khulna. From 5 sites, a total of 50 vendors and a wide range of 100 customers were interviewed to understand their mindset/ conceptualizations about the social indicators of sustainability including equity, safety & security, social cohesion and interaction. They were suggested as important indicators by various researchers. To learn about the qualitative data i.e. age, gender, governance, customer ratio and vibrancy, a semi structured questionnaire survey was employed. This was composed of questions, which helped to narrow down the responses and focus more towards our own research objectives. Each interview and the survey were recorded with the respondents' consent, and was transcribed and translated to English.

Data Analysis

The data analysis is guided by the evaluation of objectives which specify domains and issues to be investigated. The analysis is carried out through multiple interpretations of raw data, and the inductive component. Although the findings are influenced by the evaluation of objectives or questions outlined by the researcher, the conclusion is derived directly from the analysis of the raw data. (Thomas, 2006)

In the first phase, the Statistical Package for the Social Sciences (SPSS) by IBM was used as it is a proven to be a reliable data analysis software for the statistical analysis of survey data. (Field, 2013). The statistical software plays an important role in research as they can validate data, give numerical values to survey analysis and portray perfect graphical representations, which are easy to use in research (Upton & Cook, 2014). The questionnaire and respondent's data were converted into numerical values to run the reliability test on SPSS and the value of Cronbach's Alpha was 0.806 (Table) which is satisfactory to carry on the data analysis process depending on the survey.

Table 2: Data Validation
Source: SPSS Software

Case Processing Summary			Reliability Statistics	
Cases	N	%	Cronbach's Alpha	N of Items
Valid	150	100.0	.806	08
Excluded	0	.0		
Total	150	100.0		

a. Listwise deletion based on all variables in the procedure.

Item Statistics

	Mean	Std. Deviation	N
Accessibility to services, sanitation and customers	6.32	1.652	150
Interaction and participation to neighborhood, waste management, sanitation	6.05	1.258	150
Freedom of business and sense of place	5.97	1.410	150
Safe for vendors and customers regardless of gender, race and religion	4.25	1.542	150
Controlling and managing authority	5.52	1.230	150
Variety of customers, social acceptance, cultural amalgam	5.92	1.489	150
Diversity of products, customer variation and uniqueness	4.87	1.305	150
Gender ratio of participants	6.11	1.114	150

To analyze the one-to-one interviews, thematic analysis was applied as this is used highly in 21st century qualitative data analysis which not only represent important data but also group them by themes and help the authors to find their desired information (Niklas & Mozelius, 2022). This analysis method offers the most accessible and flexible qualitative data analysis method which enables to focus on the data in numerous different ways (Braun & Clarke 2012; Michelle & Lara, 2020). This required the transcription of interview recordings, stories, and experiences which followed the coding stages. Initially, the authors studied the transcripts in order to identify the potential themes. Afterwards, the elements were reviewed and higher-level sub-themes were produced which resulted in identifying quotes that were congruent with the overarching themes. After running a thematic analysis, some common themes and subthemes such as belongingness, participation, governance and identity were found which are regularly maintained by relationships, responsibilities, needs and interdependence.

Findings and Discussion

During the field survey, the mapping proves significant presence of street vendors in and near the public parks, streets and pathways of this city. In some cases, their presence accentuates the scope of using public spaces by attracting a large inflow of people. In other places, they encroached to unused barren spaces and initiates public gathering.

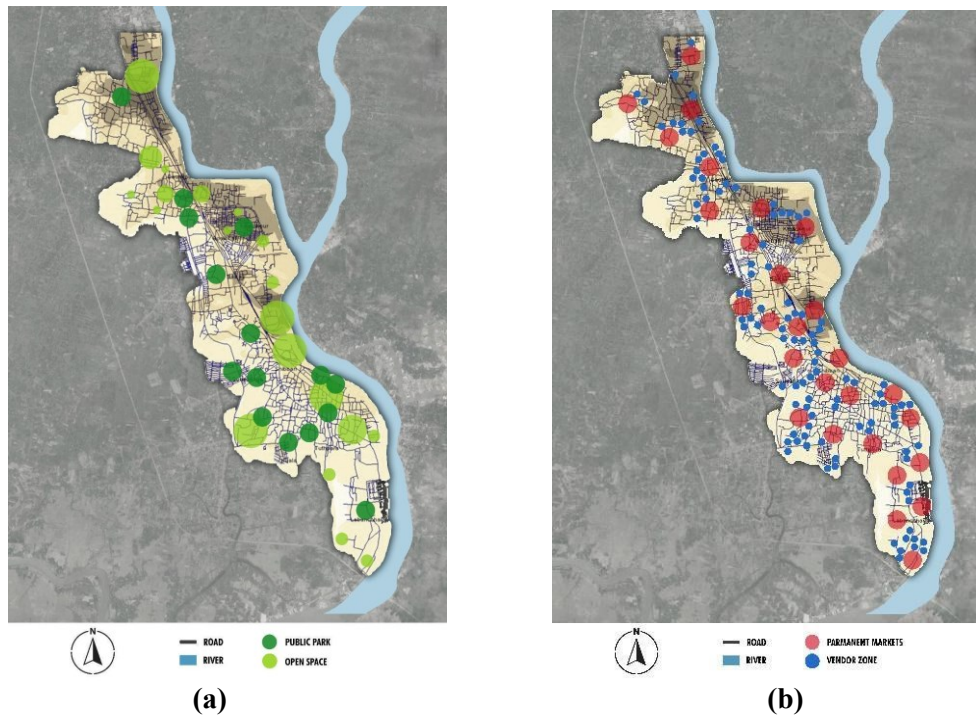


Fig. 2: (a) Public parks and Open spaces in Khulna City

Source: Author

(a) Street Vendor- major hubs in Khulna City

Source: Author

Due to the pattern and scale of the city, people used to frequently move from one place to another on foot. However, the presence of these vendors creates a setting that offers the passersby a reason to pause, gather, sit, take food, interact, and take photos. The public spaces of this city are becoming more vibrant due to their presence for a long period.



(a)



(b)



Fig. 3: People engagement on different street vending shops

Source: Author

KDA New Market Area

The area around the new market, the oldest shopping zone in the city, predominantly houses a lot of shopping and commercial activities with a few residential zones due to its centralized location and adjacency to the multiple public transportation routes. This area accommodates roughly 11% of the ward's total land which is highly expensive because of the high concentration of different branded and non-branded shops, good infrastructural availability, mixed-use development pattern etc. They lead to a scarcity of dedicated open public spaces. In order to meet the demands of a public space, a leftover parking space on the southern corner of the market (beside the Bait-un-Noor Mosque) has been turned into a temporary public place where the street vendors informally incite activities for people to gather around by selling dry food and arranging spaces for seating, standing and spending leisure time while buying food. They line with the boundaries mostly in small carts with a set up for sitting in the back or front of that cart while the rest of the space is left for passing of the people. Due to the types of food they sell, the scale of the space, easy accessibility of the place, it faces a heavy influx of young people from different educational institutions. Office workers alongside the common people of all ages hang around here. Because of the huge footfall, vendors continuously arrive in this area which in the long run make this place safe, increasing the time of engagement of people with the place.

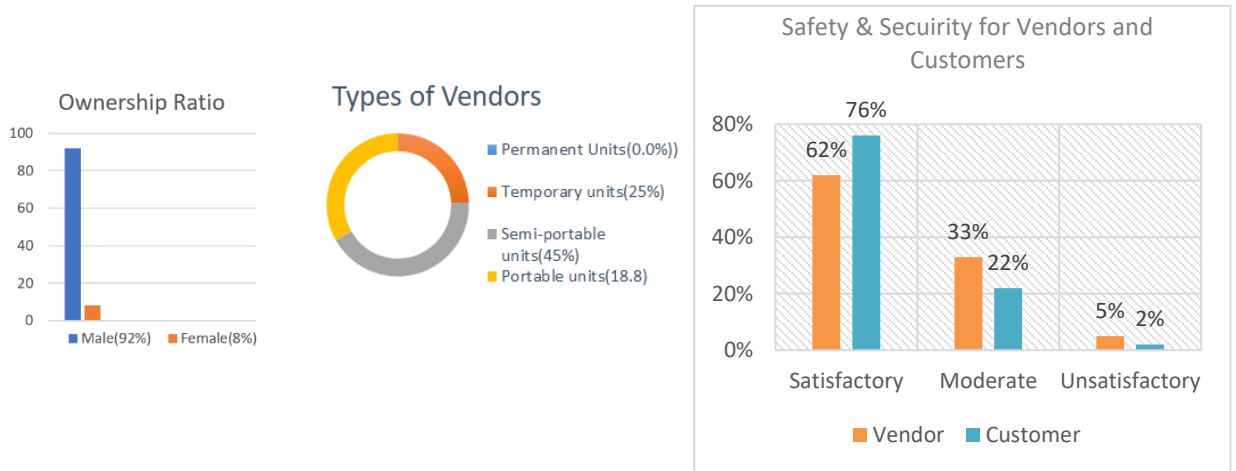


Fig. 4: Street vendors around the KDA New Market area

Source: Field work

Table 3: (a) Existing ownership ratio, (b) Types of vendors, (c) Safety & Security for the vendors and customers of KDA New Market Area.

Source: Field work & the Questionnaire survey



Ghat No.7 of the Bhairab River

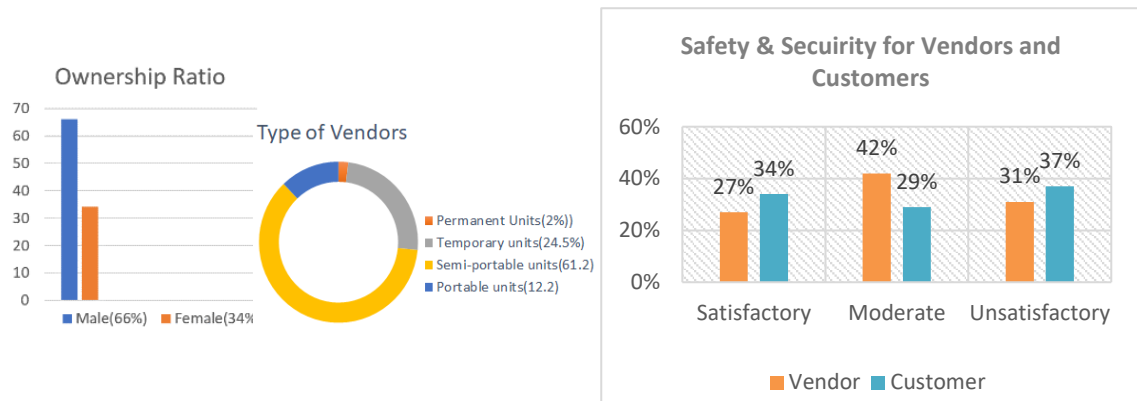
For a long time, the Bhairab river has been used as an important river transportation hub for Khulna which connects the city with its Eastern fringe areas. Locally, it is known as the “No 7 Ghat” mainly used to carry raw building materials such as brick, sand, steel, and cement etc. It also carried people who come to the city in every working day to earn their livelihood and also for study purposes. This hub is proximate to the Khulna railway station, Khulna Bangladesh Internal Water Transportation Authority Launch terminal, new market and many more important public structures. Street vending in this area is dominated by the dwellers from the nearby low-income informal settlements. During the day, the semi-temporary modules are kept open and run mostly by the female members as the males keep working as day-laborers or rickshaw-pullers. In the afternoons, they join selling different types of food such as, juice, and traditional items etc. The vendors with temporary and portable carts join them right after noon as the visitors start gathering after 3pm. During the weekends and holidays, this area sees the highest number of visitor turnout along with a surge of stationery vendors.

**Fig. 5:** Street vendors around ghat no.7 of the Bhairab River

Source: Field work

Table 4: (a) Existing ownership ratio, (b) Types of vendors, (c) Safety & Security for the vendors and customers of ghat no. 07 of Bhairab River.

Source: Field work & Questionnaire survey



Khulna University Hall Road

In the west zone of the city, Khulna University is one of the significant educational institutions with 6900 students. Patterns of vendors here are different from the other areas as they set up their businesses targeting the need of a particular user group: the residential students. Along with food, street vendors provide different stationery and grocery items for their clients. Most of the units open early in the morning before the class time and runs till the mid night. The spatial pattern of these vendors is also different as they tend to arrange individual shading and houses with seating underneath. As it is situated almost at the outskirts of the city, people from the nearby villages also come to the area with their vegetables and other food items and stay till dawn. Users here tend to spend engagement hours in comparison with the other places and the significant part is that this place sees the highest number of interactions and social exchanges between the vendors and the client groups as they are familiar and more regular in terms of using the space. While interviewing, it was found that most of the users spend 3-10 hours weekly sitting and gossiping with their peers.

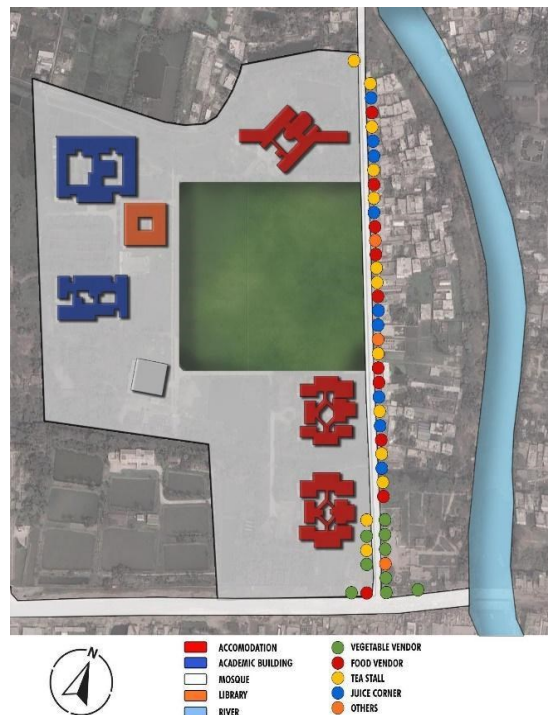
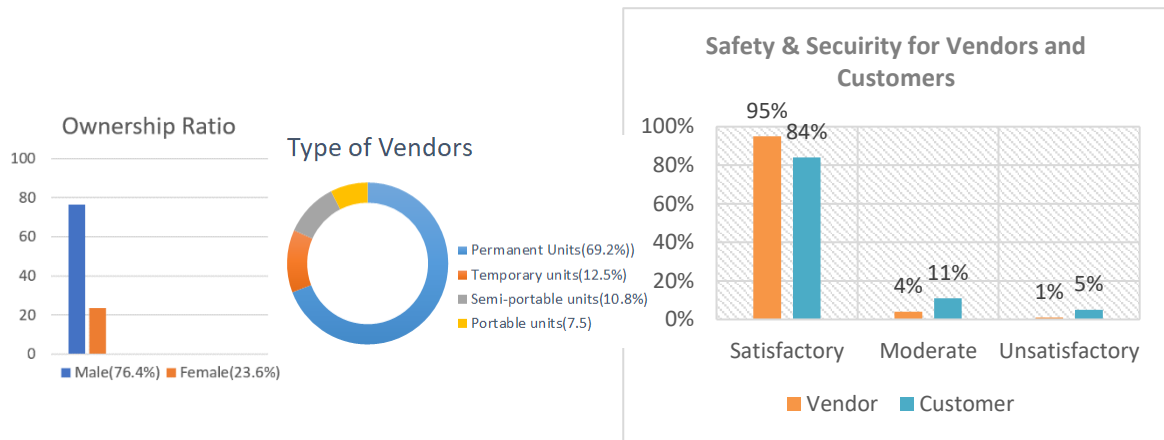


Fig. 6: Street vendors at the roadside of the Hall Road, Khulna University

Source: Field work

Table 5: (a) Existing ownership ratio, (b) Types of vendors, (c) Safety & Security for the vendors and customers of Hall road, Khulna University.

Source: Field work & Questionnaire survey



Shahid Hadis Park

Hadis Park is a dedicated open public park situated in a significant converge of commercial and shopping streets and is surrounded by few institutions and residential areas. It is a place where the city sees a beautiful amalgamation of formal and informal public places only separated with a thin and semi-transparent boundary. This park is used mostly by the residents of the nearby areas for walking in the morning and few designated spaces are used by the local kids up to evening and remain closed at night. As it is entangled by commercial areas, a large number of passersby walk past the park and often take a break and spend some time alongside taking food from the street vendors.

This park faces huge gatherings on different social, cultural and religious occasions. In the past, when the street food culture was not popular, this space remained vacant just after noon as the authority maintains a rigid operation hour. Thus, the presence of vendors elongates the engagement hours for the public while abated anti-social activities by ensuring “eyes on the street”. In this place, street vendors and other functions in the park work in unison to foster social interactions in and around the space.

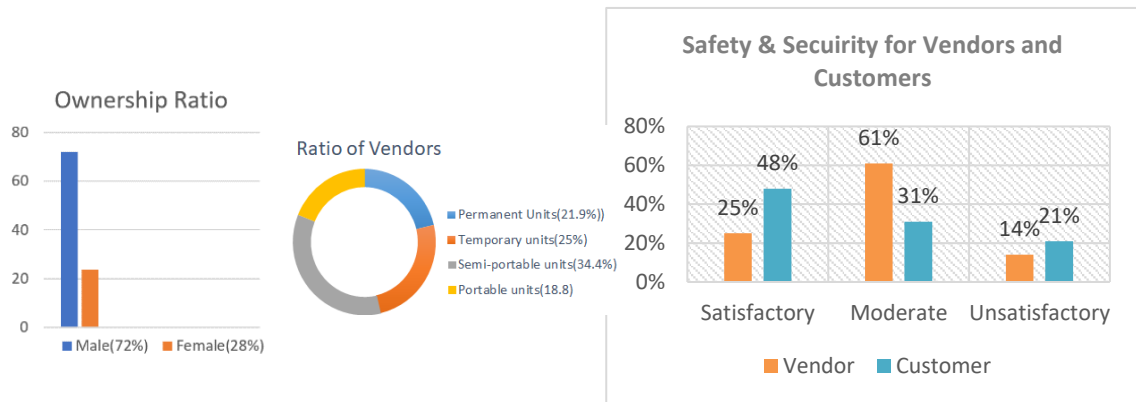


Fig. 7: Street vendors around the Shahid Hadis Park

Source: Field work

Table 6: (a) Existing ownership ratio, (b) Types of vendors, (c) Safety & Security for the vendors and customers of Shahid Hadis Park.

Source: Field work & Questionnaire survey



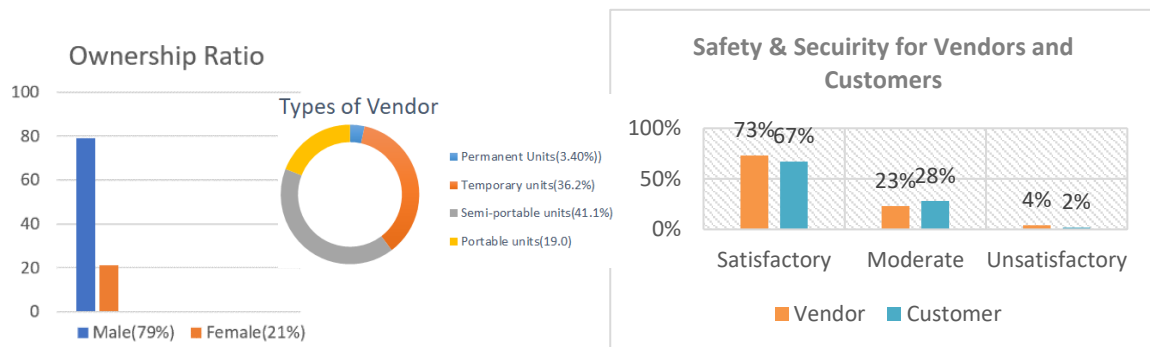
Nirala Residential Area

Being one of the most densely populated residential areas, Nirala falls behind in providing any dedicated public place for its users. It is a place where the residents are mostly from the upper middle-class and the middle-class. Street vendors here are mostly temporary and semi-portable but stay by the side of the roads and the left-out spaces kept alongside the road for further development from the morning till night. They sell a wide range of products and services often providing them door-to-door. To ensure a greater visibility and taking privilege from the footfall, the number of vendors agglomerates near the road intersections while creating an activity to the neighborhood. Elderly and middle-aged people of this locality usually go on a morning walk, have a cup of tea on the roadside tea-stalls, buy vegetables from the vendors and interact with them and the other buyers.



Fig. 8: Street vendors' position map around Nirala residential area

Source: Field work

Table 7: (a) Existing ownership ratio, (b) Types of vendors, © Safety & Security for the vendors and customers of Nirala residential area. Source: Field work & Questionnaire survey

As a result of the questionnaire survey and the one-to-one interview, it is understood that all of these sites are situated holding the street line which ensures accessibility to these sites. However, none of them are restricted or prohibited to any racial, gender related or minor communities. In most cases, the oldest or earliest vendors started their businesses on or beholding the node which spread along with the primary or secondary roads. Most of the stalls are identified as semi portable and portable (more than 70%) except in the case of Khulna University Hall Road. This is due to the amenity of a permanent consumer base and the availability of permanent shops. The growing number of mixed-use buildings alongside the street has encouraged the fact that it is different from the other sites which ensures mobility and a sense of belongingness.

"We leave our stalls locked and cleaned every night at the same place unless the police or authorities trouble us. And if anyone takes their cart for repair or restoration, we try to leave his place vacant and start our day at the same place we did yesterday, the day before yesterday and so on. We know we have to keep our places clean because we have to start the next fresh day at the same place we are leaving today. The authority (KDA) has arranged waste bins for every stall and we ourselves pay a cleaner weekly to keep the plaza clean."

A food vendor at KDA New market

Using the same spot everyday inspires them to keep their work space clean and hygienic as these attributes increase the number of customers. This practice of cycling their routine at the same place has created an identity with the variety of items and services one can get at the same place.

"I was the first vendor at this place selling juice holding a temporary cart. After some years I placed my cart in a single place and managed a temporary seating arrangement for people to sit and enjoy. Within three years there were six temporary and semi temporary sellers and I was selling my products in a permanent shop. As the days went by, I needed to employ my younger brother as well. Now people know this place by my name and I have four employees who work as waiters in my permanent shop". –

A juice vendor in Khulna University Hall road

This statement is representative of many stories from a number of vendors in all the sites. Creating job opportunities and capacity building was identified as one of the attributes which not only kept the businesses running but also encouraged a positive growth of the stalls offering diverse services. A good portion of shop owners are female (more than 20%) at all the sites except KDA New market as a result of the fewer permanent shops. Both male and female shop owners contribute in their decision making process when the opportunities are offered. Most of them elect a representative unofficially who has a good hold over the municipality authority and present their complaints, comments and decisions.

"In any problems or difficulties we go to Kamrul vai (elected person) and he solves everything both on and off the record. In case of emergency or safety problems he solved even complaints to local police"-

A tea vendor at Ghat no 7

Often, multiple vendors use the same spot to conduct their businesses in a temporal arrangement depending on their product availability and the time segment. In the Nirala residential zone, it is noticed that there is a temporary use of space at a high percentage. A huge portion is identified as temporary carts and in a portable manner who strictly maintain their time frame, provide their services and leave the place cleaned for the next one.

"Every day after sunrise, I travel from my home and bring my goods here to sell, mostly vegetables. Fishes, crabs, eggs, hen, ducks, pigeons and many more items are brought every morning by different sellers. We sit here until it's noon and then collect our belongings and return home. In the afternoon, shoyeb (another vendor) comes here with his cart, mostly to sell jhal muri (traditional food), beans and pickles. We both have an agreement between us to clean the spot before we leave " –

A vegetable vendor in Nirala Residential Area.

Most of the vendors have identified their work spaces as safe (more than 50%) regardless of gender, race or time, marking it as being satisfactory in their questionnaire except the Hadis Park and ghat no 7 area (below 30%) as the position of vending often occurs on the narrow pedestrians, creating chaos among the people walking. Overall, the presence of these vendors in all the places satisfy the social sustainability criteria. Accessibility, participation and interaction, belongingness, safety and security, and social cohesion in those spaces are sometimes laterally provided or enhanced by them.

Conclusion

Street vendors are in many ways crucial to make a place vibrant and thus improve social cohesion as they initiate activities and services to the visitors. Though they usually carry small scale businesses, their contribution in the informal economy and the overall revenue generation of the locality is beyond question. They can easily get fixed into any different spatial arrangement because of their flexible nature, thus offering diversified enclosures in the public places. Sometimes, they are convicted of augmenting traffic congestions and encroaching footpaths thus disrupting overall public mobility. Yet, they undergo the threat of eviction, and become uprooted from those neighborhoods because of different political and social monopoly.

The five different cases of the Khulna city portray how they unknowingly make a significant impact on social sustainability indicators in a diversified way in accordance with the needs of the particular contexts. In some of the places, it is working as a medium that ensures accessibility while in other places, they enhance belongingness and social cohesion among the place and users of different age groups by prolonging their time of staying at the place, creating memories etc. In each of the cases, it is evident that they ensure safety and security in and around the places as they promote active engagement of people from different social classes.

In short, street vendors are readily enhancing the overall social sustainability of the public places by gluing up people and spaces. Moreover, it adds new dimensions to the streets and the otherwise barren spaces while extending the boundaries of the public places. However, this article focused only on the on-site indicators of those places and did not investigate other sustainability indicators like equity and governance. Moreover, this study is conducted from the perspective of street vendors and their consumers but finding a more real scenario may require participation of the advocacy groups, respective authorities and their associations. The impact of street vending on the external morphology of the city should be considered as a scope to investigate in the future to produce a more rationalized analysis that portrays a better scenario of the condition of the vendors.

This paper encourages the policymakers to find out the gaps and the scope for developing the present state of the places and vendors under the framework of social sustainability.

References

- Alase, A. (2017) The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education and Literacy Studies*, 5 (2), pp. 9-19
- Alipour, S. M. Hossein & Galal Ahmed, K. (2021) Assessing the effect of urban form on social sustainability: a proposed 'Integrated Measuring Tools Method' for urban neighborhoods in Dubai. *City, Territory & Architecture*.8.10.1186/s40410-020-00129-4.
- Bacon, C. M. C., Getz, S., Kraus, M., Montenegro, and Holland, K. (2012) The social dimensions of sustainability and change in diversified farming systems. *Ecology and Society* 17 (4) pp. 41. <http://dx.doi.org/10.5751/ES-05226-170441>
- Bangladesh Bureau of Statistics. (2022, October 10). Bangladesh Bureau of Statistics. Retrieved December 1, 2021, from <http://www.bbs.gov.bd/site/page/47856ad0-7e1c-4aab-bd78-892733bc06eb/Population-and-Housing-Census>
- Bhowmik. K. S. (2001) Hawkers and the urban informal sector: a study of street vending in seven cities National Alliance of Street Vendors of India (NASVI).
- Braun, V. & Clarke, V. (2012) Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds), *APA handbook of research methods in psychology*, Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological pp. 57-71. Washington, DC: American Psychological Association
- Bromley, R. (2000) Street Vending and Public Policy: A Global Review. *International Journal of Sociology and Social Policy*, 20, pp. 1-28. doi:10.1108/01443330010789052
- Bullen, P. and Love, P. (2011) Adaptive reuse of heritage buildings. *Structural Survey*, 29 (5), pp.411-421.
- Calthorpe, P. (1993) *The Next American Metropolis: Ecology, Community, and the American Dream*: New York: Princeton Architectural Press
- Chen, J., & Chou, J. (2017) The impact of street vendors on social sustainability in public spaces: A case study of Taipei. *Sustainable Cities and Society*, 28, 177-186.
- Chiu, Rebecca, L. H. (2003) "Sustainable Development: A New Perspective For Housing Development". Hong Kong: The University of Hong Kong.
- Choy, L. (2014) The Strengths and Weaknesses of Research Methodology: Comparison and Complimentary between Qualitative and Quantitative Approaches. *IOSR Journal of Humanities and Social Science*, 19 (4), pp. 99-104.
- Chris Landorf (2011) Evaluating social sustainability in historic urban environments, *International Journal of Heritage Studies*, 17:5, pp. 463-477, DOI: 10.1080/13527258.2011.563788
- Braun, V., Clarke, V. (2013) *Successful Qualitative Research: A Practical Guide for Beginners*. United Kingdom: SAGE Publications.
- Colantonio, A (2010) Urban social sustainability themes and assessment methods. *Proceedings of the Institution of Civil Engineers: Urban Design and Planning*, 163. Pp. 79-88. doi:10.1680/udap.2010.163.2.79
- Colantonio, A. & Dixon, T. (2011) *Urban Regeneration & Social Sustainability: Best Practice from European Cities*. 10.1002/9781444329445.ch2.
- Cresswell, T. (1996) *In place-out of place*. Minneapolis: University of Minnesota Press.
- Cross, J. (2000) Street Vendors, and Postmodernity: Conflict and Compromise in the Global Economy. *International Journal of Sociology and Social Policy*, 20, pp. 29-51. doi:10.1108/01443330010789061
- Deore, P. & Lathia, S. (2019). Streets as Public Spaces: Lessons from Street Vending in Ahmedabad, India. *Urban Planning*, 4(2), pp. 138–153. <https://doi.org/10.17645/UP.V4I2.2058>
- Dempsey, N., Bramley, G., Power, S., & Brown, C. (2011) The Social Dimension of Sustainable Development: Defining Urban Social Sustainability. *Sustainable Development*, 19, pp. 289-300. doi:10.1002/sd.417

- Edwin Chan & Grace Lee, (2008) "Critical factors for improving social sustainability of urban renewal projects," *Social Indicators Research: An International and Interdisciplinary Journal for Quality-of-Life Measurement*, Springer, Vol. 85 (2), pp. 243-256.
- Effendi, N. (1999) *Minangkabau markets: a picture of an indigenous economic system*. (Working Paper / Universität Bielefeld), <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-422613>
- Flores, R., & Alcántara, L. (2018) The role of street vendors in the social sustainability of public spaces in Mexico City. *Sustainability*, 10 (4), 1184.
- Fugard, Andy & Potts, H. (2015) Supporting thinking on sample sizes for thematic analyses: a quantitative tool. *International Journal of Social Research Methodology*. 18. 10.1080/13645579.2015.1005453.
- Gehl, J. (2013) *Cities for People*. United Kingdom: Island Press.
- Ghahramanpouri, A., Abdullah, A., Sedaghatnia, S. and Lamit, H. (2015) Urban Social Sustainability Contributing Factors in Kuala Lumpur Streets. *Procedia - Social and Behavioral Sciences*, 201, pp. 368-376.
- Gilbert, K. R. (2001) *The emotional nature of qualitative research*. CRC Press/Routledge/Taylor & Francis Group.
- Guest, Greg & Bunce, Arwen & Johnson, Laura. (2006) How Many Interviews Are Enough? *Field Methods - field method*. 18. 59-82. 10.1177/1525822X05279903.
- Hemani, Shruti., Das, A.K. & Chowdhury, A. (2017) Influence of urban forms on social sustainability: A case of Guwahati, Assam. *Urban Design International*. 22. pp. 168-194. 10.1057/s41289-016-0012.
- Hough, M. (1990) *Out of Place: Restoring Identity to the Regional Landscape*. New Haven: Yale University Press.
- Humble, Niklas & Mozelius, Peter. (2022) Content analysis or thematic analysis - Similarities, differences and applications in qualitative research, *ECRM 2022 21st European Conference on Research Methods in Business and Management*, Academic Conferences and Publishing Limited. pp. 76-81.
- Jacobs J. (2011) *The Death and Life of Great American Cities* (50th anniversary ed. 2011 Modern Library). Modern Library.
- Karim, K. M. R. and Roy, T. K., (2012), "Environment of the Parks in Metropolitan Area: A Case of Khulna City" *The Journal of Social Studies*, Centre for Social Studies (CSS), Dhaka, Bangladesh, Vol. No. 135, pp. 54-71
- Karuppanan, Sadasivam & Sivam, Alpana. (2011) Social sustainability and neighbourhood design: An investigation of residents' satisfaction in Delhi. *Local Environment*. 16. pp. 849-870. 10.1080/13549839.2011.607159.
- KCC. (2018) *Basic Statistics*, Khulna City Corporation (KCC). Retrieved from 662 http://www.khulnacity.org/Content/index.php?page=About_KCC&aGo&pid=30
- KDA. (2002) *Structure Plan, Master Plan and Detailed Area Plan for Khulna City* (Volume 664 III). Khulna: Khulna Development Authority.
- Kda.gov.bd. (2022) *খুলনা উন্নয়ন কর্তৃপক্ষ*. [online] Available at: <<http://www.kda.gov.bd/>> [Accessed 12 October 2022].
- Khaza, M. K. B, Rahman, M. M., Harun, F., & Roy T. K. (2020). Accessibility and Service Quality of Public Parks in Khulna City. *J. Urban Plann. Dev., American Society of Civil Engineers*. 146 (3): 04020024. DOI: 10.1061/(ASCE)UP.1943-5444.0000589
- Larimian, T. & Sadeghi, A. (2021) Measuring urban social sustainability: Scale development and validation. *Environment and Planning B: Urban Analytics and City Science*, 48(4), pp. 621–637. <https://doi.org/10.1177/2399808319882950>
- Lois, Ruth, Harris., Gavin, T., L., Brown. (2010) Mixing interview and questionnaire methods: Practical problems in aligning data. *Practical Assessment, Research and Evaluation*, 15 (1), pp. 1-19. Available from: 10.7275/959J-KY83
- Lotfata, A. & Ataöv, A. (2019) Urban streets and urban social sustainability: a case study on Bagdat street in Kadikoy, Istanbul. *European Planning Studies*. 28. pp. 1-21. 10.1080/09654313.2019.1656169.

- Maneepong, C. & Walsh, J. (2013) A new generation of Bangkok Street vendors: Economic crisis as opportunity and threat. *Cities*, 34, pp. 37-43. doi:10.1016/j.cities.2012.11.002
- Marie, S. & Walter, A. (2019) The role of social sustainability in building assessment, *Building Research & Information*, 47:5, pp. 598-610, DOI: 10.1080/09613218.2018.1468057
- Marton, F., & Pong, W. Y. (2005) On the unit of description in phenomenography. *Higher Education Research and Development*, 24 (4), pp. 335-348.
- Dillard, J., Dujon, V., & King, M.C. (2008) *Understanding the Social Dimension of Sustainability*. Routledge. <https://doi.org/10.4324/9780203892978>.
- McGee, T. and Yeung, Y. (1977) *Hawkers in Southeast Asian cities*. Ottawa: International Development Research Centre.
- Mckenzie. (2004) *Social sustainability: towards some definitions*. (1st ed.). Hawke Research Institute, University of South Australia.
- Mehta, V. (2014). Evaluating Public Space. *Journal of Urban Design*, 19 (1), pp. 53-88. doi:10.1080/13574809.2013.854698
- Michelle E. K. & Varpio, L. (2020) Thematic analysis of qualitative data: AMEE Guide No. 131, *Medical Teacher*, 42:8, pp. 846-854, DOI: 10.1080/0142159X.2020.1755030
- Moulay, Amine & Ujang, Norsidah & Said, Ismail. (2016) Legibility of neighborhood parks as a predictor for enhanced social interaction towards social sustainability. *Cities*. 61. pp. 58-64. 10.1016/j.cities.2016.11.007.
- Musoni, F. (2010) Operation Murambatsvina and the Politics of Street Vendors in Zimbabwe. *Journal of Southern African Studies*, 36 (2), pp. 301-317. doi:10.1080/03057070.2010.485786
- Namin, E. R., Najafpour, H., & Lamit, H. B. (2013) Public Places and Spaces and Social Urban Interaction (A Case Study of Johor Bahru, Malaysia).
- Otero, I., & Fischer, H. W. (2016). Street vending and the social sustainability of urban public spaces in Ghana. *Journal of Cleaner Production*, 134, pp. 52-62.
- Pajares, M. F. (1992) Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of educational research*, 62 (3), pp. 307-332,
- Peña, S. (2000) Regulating informal markets: informal commerce in Mexico City. *International Journal of Sociology and Social Policy*, 20, pp. 37-67. doi:10.1108/01443330010789223
- Pitarch-Garrido, Maria-Dolores, (2018) Social Sustainability in Metropolitan Areas: Accessibility and Equity in the Case of the Metropolitan Area of Valencia (Spain), *Sustainability*, 10, issue 2, pp. 1-16
- Reshmi, P. & Shanthi Priya, R. (2021) Paradigms of street food vending in sustainable development – a way forward in Indian context, *Cities & Health*, 5:3, pp. 234-239, DOI: 10.1080/23748834.2020.1812333
- Roever, S. & Skinner, C. (2016). Street vendors and cities. *Environment and Urbanization*, 28(2), pp. 359–374. <https://doi.org/10.1177/0956247816653898>
- Roy, T. K. (2012) “Urban Open Space and Green Proposals of Khulna City Master Plan and Their Implementation”, *Proceedings of the 2nd International Conference in Environmental Technology and Construction Engineering for Sustainable Development (ICETCESD-2012)*, SUST, Sylhet, Bangladesh. ISBN:978-984-33-4624-7.
- Sarah Ancell & Thompson-Fawcett, M. (2008) The Social Sustainability of Medium Density Housing: A Conceptual Model and Christchurch Case Study, *Housing Studies*, 23:3, pp. 423-442, DOI: 10.1080/02673030802029990
- Serajul Hakim, S. & Biswas, A. (2018) The publicness of public-servant spaces in Khulna.
- Shirazi, M. R., and Ramin, K. (2021) "Social Sustainability of Compact Neighbourhoods Evidence from London and Berlin" *Sustainability* 13, no. 4: pp. 23-40. <https://doi.org/10.3390/su13042340>
- Shirvani, H. (1985) *The Urban Design Process.*: New York: Van Nostrand Reinhold Company.
- Soltani, S., Gu, N., Ochoa, J. and Sivam, A., (2022) The role of spatial configuration in moderating the relationship between social sustainability and urban density. *Cities*, 121, pp.103519.

- Stainback, S. and Stainback, W. (1984) Methodological Considerations in Qualitative Research. *Journal of the Association for Persons with Severe Handicaps*, 9 (4), pp.296-303.
- Swedberg, R. (2020) Exploratory research. In: Elman C, et al. (eds) *The Production of Knowledge*. Cambridge: Cambridge University Press, pp.17–41.
- Taylor, S. and Bogdan, R. (1984) *Introduction to qualitative research methods*. New York: Wiley.
- UN-Habitat. (2020). *The New Urban Agenda Illustrated (Vol. 01)*. United Nations Human Settlements Programme.
- Thomas, David. (2006) A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation*. 27. pp. 237-246. 10.1177/1098214005283748.
- Ugochukwu, S. C. & Emenike, C. P. (2020). Street vending and social sustainability of public places in Nigeria: A study of Enugu metropolis. *Journal of Public Affairs*, e2219.
- Upton, G. and Cook, I. (2014) *A dictionary of statistics*. 3rd ed. Oxford University Press.
- Whyte, William H. (1980). *The social life of small urban spaces*. Washington, D.C.: Conservation Foundation,
- Yasmeen, G. (2001) Stockbrokers turned sandwich vendors: The economic crisis and small-scale food retailing in Southeast Asia. *Geoforum*, 32, pp. 91-102. doi:10.1016/S0016-7185(00)00038-5
- Yatmo, Y. (2008) Street Vendors as ‘Out of Place’ Urban Elements. *Journal of Urban Design*, 13(3), pp.387-402.
- Yung, Esther & Chan, Edwin & Xu, Ying. (2014) Sustainable Development and the Rehabilitation of a Historic Urban District – Social Sustainability in the Case of Tianzifang in Shanghai. *Sustainable Development*. 22. 10.1002/sd.534.
- Yustika, A. E. (2000) *Industrialisasi pinggiran*. Yogyakarta: Pustaka Pelajar.
- Zukin, S. (1995) *The cultures of cities*. Cambridge: Blackwells.