Prospects of Urban Regeneration in Motijheel Commercial Area of Dhaka City

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Abstract: Since the independence of Bangladesh in 1971. Motifheel Commercial Area has flourished as the main Central Business District (CBD) of Dhaka City attributable to its rapid pace of commercial development. However, the process of development in this area followed a spontaneous but unplanned manner. As a consequence, this CBD is continuously confronting two key urban problems: congestion and constriction- which are often considered as factors that necessitate urban regeneration. This paper focuses on identifying the scope of urban regeneration in Motifheel Commercial Area. The study recognizes the traffic congestion problem of Motijheel with the characteristics of high volume-capacity ratio, illegal on street parking, inefficient management of public transport system and absence of pedestrian friendly facilities. The issue of constriction is addressed as lack of opportunity for horizontal expansion of the CBD due to its densely developed surrounding area. Similar issues were experienced previously by city centers like- Wokingham, Fort McMurray, Armagh, Liverpool etc and were tackled successfully by applying various techniques and strategies. Comparing those case studies with the present scenario of Motijheel, this paper also discusses some strategies to revitalize the CBD that will help to make it functionally more efficient.

1. Introduction

The concept of the Central Business District (CBD), an urban model, is nothing new in the field of city planning. As an essential outcome of rapid urbanization and flourish of the major cities, this concept emerged in the 19th century capitalist United States and gradually diffused to the other western countries [1].

According to the encyclopedia of World Geography, CBD is- "... the nucleus of an urban area that contains the main concentration of commercial land use" [2]. Being the focus of financial, economic and administrative activities of the cities, the importance of CBD sometimes

exceeds the regional boundary and become a hub of national or global significance [3]. Although flourished in the western world initially, it did not take long to realize the need of CBD by the developing countries.

The growth of such commercial hub in Dhaka City, the capital of Bangladesh, does not follow any systematic process. Rather, its development is more spontaneous. The commercial activities that had been emerged on the bank of the river Buriganga during the Mughal period eventually expanded and became one of the most important commercial hubs of the city [4]. Despite not being at the center of the city, the commercial significance of this area necessitated to declare and develop it as a planned commercial area for meeting up the demand of the ever increasing commercial and administrative activities back in the 1950s [5]. In this way, "Motijheel"- the most important commercial hub was developed on a swampy marshy land in a desolated fringe area in 1954 [4]. In the 1959 Master Plan of Dhaka City, Motijheel was demarcated as a commercial area but not a CBD [6]. And to support this commercial hub, "Tikatuli", located at the south, "Shantinagar" located at the north and "Kamalapur" located at the east of Motijheel were developed as residential settlements during 1950s 4. After the independence of Bangladesh in 1971, Motijheel grew as a dynamic administrative and commercial area and served the purpose of CBD for the capital [4].

Since the independence, Dhaka city experienced a rapid rate of urbanization largely attributable to the rural to urban migration [7].



Figure 1.1: Trend of level of urbanization in Bangladesh

(Source: Rouf and Jahan, 2007

Figure 1.1 shows the trend of urbanization in Bangladesh from 1891 to 1991 [8]. The rapid growth after 1971 is evident from the figure. Even after 44 years of independence, this trend is still unchanged. According to the latest census report, approximately 14.5 million people live here in Dhaka City in just 1,325 square kilometers with a density of 10,943 persons per square kilometer and an annual growth rate of 4.34% [9]. As a result, the need of more CBDs also appeared and resulted in the development of some other areas with the characteristics of CBD- like Gulshan and Karwan Bazar in Dhaka. But this never reduced the pressure on Motijheel as it kept growing in terms of activities and employment. This can be better comprehended from the change in land prices of Motijheel. A study showed that land prices in Motijheel increased by an astounding 2,400 percent after the independence which is the highest among all other regions of the city [10]. Around 64% of the total lands in Motijheel are used solely for commercial activities, whereas 13.78% are designated as of mixed land use, which also includes commercial activities along with other activities like institutional or residential activities [11]. Over time, many CBDs in the world have undergone such growth and continued to thrive. But simultaneously they had confronted some key problems like high population densities, traffic congestion, unplanned development, environmental degradation and so on [12]. One of the oldest CBDs of Bangladesh, Motijheel, is not an exception to this fact. The CBD is now encountering many problems, including severe traffic congestion during morning and evening peak hour, unplanned construction of high rise buildings, inadequate parking spaces and hence reduction in effective road width by on-street car parking; concentrated development surrounding the CBD allowing no room for horizontal expansion; underutilization of vacant lands and so on. Given the rapid rate of growth, the situation will only deteriorate further in future unless some preventive measures are not taken immediately. Under this circumstance, for the proper functioning of the CBD, Regeneration or Revitalization of Motijheel has become a must. "Urban Regeneration" is a technique of urban planning that ensures a balance between people, activities and place [13]. By ensuring a balance among these three elements, achieving proper functionality of Motifheel in terms of uninterrupted and convenient activities should be the major concern of all.

"Urban Regeneration" or "Urban Renewal" is the process to improve the physical, environmental, economic and social condition of an area. Roberts and Sykes defined Urban Regeneration as:

"... Comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change" [14].

The need of Urban Regeneration may arise from severe traffic congestion, structural obsolescence or constriction of the city center or the city as a whole by the surrounding land uses [15]. Although most of the structures of Motijheel are not obsolete vet (Field survey, 2013), the other two factorscongestion and constriction- are very much applicable in the context of Motijheel. This helps to understand the need of regeneration in Motijheel. Throughout the world, many cities have successfully applied this technique of urban planning. The city centers of Wokingham, Fort McMurray, Armagh, Liverpool - all are the examples of successful implementation of Urban Regeneration technique [16-19]. The problems- for which regeneration was necessary in these citiesresemble to the existing problems of Motijheel to a large extent.

In the light of these case studies, this study aims at finding the potentiality and scope of urban regeneration in Motijheel to ensure a fully functional CBD. The objectives of the study include- 1) justification of urban regeneration in Motijheel Commercial Area (Motijheel C/A), with respect to the factors of urban regeneration discussed previously, and 2) coming up with some potential solutions that will enhance the existing scenario. It involves a thorough study of the strategies taken by the cities under similar context and finally it identifies the extent to which these strategies are applicable in Motijheel Commercial Area and provides some general recommendations for the policy makers.

2. Materials and Methods

This study is based on both primary and secondary data. To fulfill the objectives, at first the study looked into the existing scenario of Motijheel Commercial Area with respect to the factors that necessitates urban regeneration i.e. traffic congestion, constriction problem. For this reason, a reconnaissance survey was carried out to gather knowledge on the existing situation of the study area. Information on building uses, building height and location of bus stoppages were collected through the field survey.

Secondary resources like GIS (Geographic Information Systems) maps were collected from Rajdhani Unnayan Kartipakkha (RAJUK), the improvement authority of Dhaka City. These maps were further used to extract the information on land uses of Motijheel and its surrounding area and the

road networks within the area. To highlight the congestion scenario of Motijheel, traffic volume data of the major links of the area were collected from secondary sources. On-street and off-street parking demand and supply data were also collected from secondary sources for this purpose. As far as the constriction problem is concerned, the study analyzed the existing land use pattern of Motijheel area and its surrounding areas. Based on these analyses, the study justified the necessity of urban regeneration in Motijheel Commercial Area. Once objective one was accomplished, an extensive literature review was conducted to see what responsive measures were taken under similar situation in different countries of the world. For this, a number of case studies on urban regeneration were thoroughly studied to find similarities with the context of Motijheel. The study looked into the fact that- under which circumstance urban regeneration scheme was taken in those areas as well as the response strategies taken under the scheme. It also attempts to identify the applicability of those strategies for Motijheel. Based on the findings and understandings of this literature review, the study finally provides some recommendations and strategies for the policy makers to enhance the existing situation of Motijheel C/A.

3. Justification of Regeneration in Motijheel

In this study, the scope of regeneration in Motijheel C/A has been discussed from two perspectives: Transport (traffic congestion, parking, multimodal transport system, non-integration of motorized and non-motorized vehicles) and land use. The characteristics of these two aspects have been considered as indicators of congestion and constriction problem to justify whether regeneration is necessary and applicable to this CBD.

3.1. Traffic Congestion Problem

A well-functioning transportation system which includes mass transit, congestion free traffic, energy efficiency, pedestrian priority and

structured parking facilities, is an important physical component of a vibrant city center [20]. Therefore, to understand the functionality of the existing transportation system of Motijheel C/A, it is necessary to identify whether the entire system is pedestrian friendly and existing roads and parking facilities are sufficiently capable to meet the current and future traffic demands.

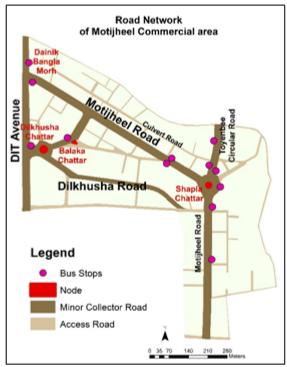


Figure 3.1: Road network of Motijheel Commercial Area

Source: DAP, 2010

In the study, the design VCR (Volume Capacity Ratio) and existing VCR have been compared to investigate whether the roadways in the study area are sufficient to fulfill the present and future traffic demands. The entire Motijheel C/A is served by three minor collector roads and some access roads. The minor collector roads are named by Motijheel Road, Dilkhusha Road and DIT Avenue (Figure 3.1). The average width of the carriageway of these minor collector roads is approximately12meters

| Link Name | Traffic Volume of 2007 in Peak Period (PCU/ Hour) | VCR in 2007 | Traffic Volume of 2012 in peak Period (PCU/ Hour) | VCR in 2012 | Projected Traffic Volume of 2017 in Peak Period (PCU/Hour) | Projected VCR in 2017 |
|--|---|-------------|---|-------------|--|--------------------------|
| Shapla Chattar to Dainik Bangla Morh | 2277 | 1.08 | 2546 | 1.21 | 2815 | 1.34 |
| Dainik Bangla Morh to Shapla Chattar | 2698 | 1.28 | 2714 | 1.29 | 2730 | 1.3 |

(DAP, 2010). According to the "Geometric Design Standards (version – 4)" prepared in 2000 by "Roads and Railway Department" of Bangladesh, the maximum capacity of these roads is 2100 PCU/hour [21]. Researches show that this capacity has already been crossed within 2007 which has further increased up to 2012 due to the massive amount of land use change and land development projects [22]. Table 3.1 is given above showing the current and projected VCR of two important links of Motijheel C/A.

VCR greater than one indicates the presence of larger volume of traffic than the capacity of the associated roadways which might result in severe traffic congestion [23]. Hence, from table 3.1 it is evident that traffic congestion is a severe transportation problem in Motijheel C/A. The projected VCR of 2017 also depicts that the congestion situation of Motijheel will worsen in the near future.

The quality of mass transit is another important indicator of an efficient transportation system. In case of Motijheel C/A, only some bus service facilities are available as public transport. These bus services can be characterized by lack of integration and are operated in a haphazard way. There are three nodes in Motijheel C/A - Shapla Chattar, Balaka Chattar and Dilkhusha Chattar (Figure 3.1). Traffic congestion mostly occurs surrounding these nodes. The congestion is aggravated by the presence of multiple and very frequent bus stoppages with very close proximity to the nodes. Location of bus stoppages are illustrated in figure 3.1. Most of the stoppages are illegal with a temporary set up and without any supporting infrastructure like a planned bus stop (Figure 3.2).



Figure 3.2: Bus stoppages located surrounding Shapla Chattar

Source: Field Survey, 2013

As a result, buses stop frequently at these stoppages by hindering the normal flow of traffic.

Another important factor which reduces the efficiency the transportation system of Motijheel

C/A is the presence of non-motorized traffic along the same road with motorized traffic. There is no segregation between the motorized and non-motorized traffic in this area. Non-motorized transports thus impede vehicular flow of motorized traffic by reducing its average speed. In addition, this type mixed modal system increases people's tendency of overtaking which might result in fatal accidents [24].



Figure 3.3: Illegal on-street parking along minor collector roads

Source: Field Survey, 2013

The existing parking system is another reason of inefficiency of transportation system in the Motifheel C/A. According to Bangladesh National Building Code 25, commercial buildings that are six storied or higher, must have one parking space for each 200 square meter floor area. However, many commercial buildings of the area do not follow this regulatory law. A study shows that most of the commercial buildings, besides Shapla Chattar-Dainik Bangla Morh Link Road, provide on-street parking spaces to meet the parking demands26. According to the study, the available capacity of the designated parking areas in this area However, the average parking accumulation is 468 (designated and on street parking) resulting in a substantial amount of parking spillover. In addition, within office period, usually a single row of cars remains parked along the both sides of the minor collector roads (Figure 3.3). The standard width of a car is approximately 1.8 meters. Hence, a single row of on-street parking on both sides of a 12 meters minor collector road causes almost 30 percent reduction of effective road width and contributes to congestion.

Last but not least, a city center should ensure convenient movement among different types of uses like retail shops, banks, offices etc. Therefore, a city center should be pedestrian friendly in terms of safety, connectivity and comfort. It should consist of broad sidewalks and attractive pedestrian precincts 20. However, in case of Motijheel C/A,

footpaths cannot be used by pedestrians as they are often clogged by street hawkers. It lessens the safety and comfort of the pedestrians and also enhances the congestion problem of the area.

3.2. Constriction Problem

Constriction problem is often faced by those oldest parts of the city which have not grown in proportion with the outward growth of the city and at present, which require space to expand to serve the greatly increased population of the city, but they can seldom do so without extensive changes in the existing pattern. Motifheel C/A is also one of the oldest parts of Dhaka city. The increased commercial and economic development of this CBD is naturally generating more activities and opportunities along with more infrastructure development which will eventually require the expansion of the physical boundary of CBD. Now the question is whether Motijheel area is also encountering this constriction problem being incapable of horizontal expansion and whether there is any scope for vertical expansion to accommodate its future commercial growth.

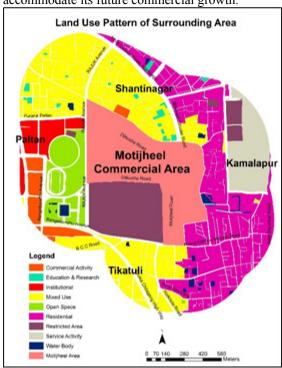


Figure 3.4: Land use pattern of surrounding Area Source: DAP, 2010



Figure 3.5: Land use pattern of Motijheel area Source: DAP, 2010

To understand the scope of horizontal expansion of Motijheel C/A, the existing land use pattern of Motijheel and its surrounding area has been analyzed. A buffer area with a linear distance of 500 meters from the boundary of the study area has been developed to identify and estimate different types of land uses. As shown in Figure 3.4 and 3.5 Motijheel area is encompassed with intense land uses from every side. About 58 percent of Paltan and Tikatuli area located on the western and southern side of Motijheel are developed as mixed land uses. About 70 percent of Shantinagar and Kamalapur area which are located in the northern and eastern side of Motijheel are concentrated with residential land uses [11].

| Table 3.2:Land Uses of Surrounding Area | | | | | |
|---|---------------------------------|----------------|--|--|--|
| Types of Land Use | Total Area (In sq meters) | Percentage (%) | | | |
| Mixed use | 246256 | 35.16 | | | |
| Commercial Activity | 100036 | 14.28 | | | |
| Residential | 192449 | 27.48 | | | |
| Open space | 41902 | 5.98 | | | |
| Water Body | 40943 | 5.85 | | | |
| Transport and Communication | 29726 | 4.24 | | | |
| Education and Research | 22090 | 3.15 | | | |
| Restricted Area | 14002 | 2.00 | | | |

| | 1 | | | | | |
|---|---------------------------------|----------------|--|--|--|--|
| Institutional | 12899 | 1.84 | | | | |
| Table 3.3:Land Uses of Motijheel Commercial | | | | | | |
| Area | | | | | | |
| Land Use | Total Area (In sq meters) | Percentage (%) | | | | |
| Commercial Activity | 91584 | 64.00 | | | | |
| Mixed use | 19717 | 13.78 | | | | |
| Vacant Land | 11416 | 7.98 | | | | |
| Water Body | 9602 | 6.71 | | | | |
| Transport and Communication | 6571 | 4.59 | | | | |
| Restricted Area | 3418 | 2.39 | | | | |
| Education and Research | 792 | 0.55 | | | | |

Data Source: DAP, 2010

Table 3.2 represents the percentages of different types of land uses of the surrounding area within 500 meters buffer from Motijheel C/A. The table shows that about 74 percent of the surrounding area is being used for residential and mixed purposes. Around 19 percent of the land has also been developed for other types of land uses. The remaining lands designated as open spaces are mostly within the boundary of Bangabandhu Stadium, but no further development can take place inside the stadium. Hence, the surrounding areas are already developed; Motijheel C/A has no further opportunity to expand its physical boundary. In other words, this renowned commercial hub of Dhaka city is severely experiencing the problem of being constricted due to its intensive surrounding land uses.

Table 3.3 shows the percentages of land occupied by different types of land uses in Motijheel C/A. Here, it is noteworthy that around 8 percent of lands still exist as vacant or unconstructed in this area. This situation is very undesirable in such a pivotal commercial area like Motijheel where land value is increasing at an alarming rate. In 1975, the land price of Motijheel was 50 thousand BDT (642.67 USD) per Katha (1 Katha = 66.92 square meters) which has further increased to 1.2 million BDT (15.42 thousand USD) per Katha in 1990 and then to 3.5 million BDT (44.99 thousand USD) per case in 2000. Finally, per Katha land price of Motijheel has augmented to 20 million BDT (257.07 thousand USD) in 2010 [26]. Besides, the built up lands of Motijheel area are also being underutilized. 56.2 percent of the buildings constructed in this area are below six stories, 30 percent are within 7 to 10 stories and only 13.8 percent are above 10 stories (field survey, 2013). This signifies that Motijheel C/A has a greater

scope for vertical expansion which will make a proper utilization of this highly valued land.

From the discussions mentioned above, it can be said that Motijheel C/A is encountering congestion and constriction problem to a large extent. As stated before, these types of problems necessitate regeneration of a CBD. The existing problems prevailing in the Motijheel C/A resemble to some common problems of many city centers in all over the world. Those city centers have successfully overcome these problems through effective implementation of regeneration technique. Hence it can be justified that regeneration can be a probable apt method to revive this commercial hub by settling all its problems.

4. Strategies Adopted by Different Countries to Regenerate CBD

A regeneration process generally adopts two types of response strategies. One involves major infrastructural development and other is changes in the existing policy. Since the first one would be costly to initiate for a developing nation like Bangladesh, it would not be a feasible regeneration plan. So this paper will only be discussing strategies concerning changes in the existing policy and behavioral patterns.

4.1. Response Strategies for Traffic Congestion Problem

Congestion is the most common problem occurring in city centers all over the world. For example, city centers of Wokingham, Fort McMurray, Armagh, Liverpool etc faced problems regarding traffic congestion and parking provision, and were successful to resolve the problem in their respective territories. Among them, Wokingham of UK and Armagh City center of Northern Ireland had similar type of problems. Both these city centers were affected by huge traffic volume, which was difficult to handle with the current capacity of the roads [16, 18]. As a result, they took some measures to regulate the traffic movement and to improve the overall environmental quality.

- The planning authority of both these city centers identified that increase in number of private cars is one of the principal reasons for such traffic congestion. For this reason, main focus was given on the reduction of car dependency and greater priority was given to the public transport sector.
- The use of non-motorized traffic was encouraged in both these city centers. The overall integration between different transport modes such as- cycling, private car, and bus was improved.

■ It should be mentioned that in the Armagh City Center, new link roads were constructed for better functionality of the public transports. Also in case of the Wokingham City Center, special importance was given to the rail routes adjacent to the city center [16, 18].

The reason behind the traffic congestion problem in the Fort McMurray was different from both Wokingham and Armagh City Center. It was due to the greater concentration of trucks, oversized loads and hazardous goods along the roads of the city center. As a result, very little protection was provided to non-motorized traffic and public transports. To solve the situation, separate lanes were created for the movement of non-motorized traffics such as- bicycles to and from all the directions of the city center. Also public transit services were improved by creating public transport services through various connecting streets from the city centers. The transit stations were relocated in the nodes of the civic and employment centers. Lastly the movement of trucks and oversized vehicles was prohibited during the peak hours [17].

The traffic congestion of a city center is directly related to the amount of parking provisions in the area. The design of the parking facilities directly influences the pedestrian movement of the city center [16-17]. Among the city centers mentioned above, Wokingham and Fort McMurray city center had similar parking strategy to meet the increasing parking demand. The planning authority of both these city centers was against to allow long term parking provisions at the core of the city center [16-17]. In case of the Wokingham City Center, several short term parking provisions were provided around the core of the city center, enabling only five minutes walking distance from the core [16]. The parking provisions were provided with respect to the pedestrian network of the city center. It was understood that for managing the parking demand and reduce peak hour congestion, long term on street parking must be prohibited. This was achieved through reduction in car dependency and provision of more off street parking provisions. The strategy for reducing car dependency is already discussed previously. New multi-storied and underground parking provisions were created in the employment centers, civic centers and shopping malls [17].

The case of Liverpool City Center is a bit different from the others. Here the parking problem generated from the inadequacy of car parking facilities in the residential buildings of the city center and limited car parking spaces in the shopping malls and civic centers. This was solved by the enforcement of Decriminalized Parking Control Law. It stated that any residential

development without appropriate parking facility would be illegal. Also the off street parking facilities of the shopping mall and civic centers were expanded [19]. Just like Wokingham and Fort McMurray City Centers, short term parking facilities were given greater priority.

The parking strategy of the Armagh City Center was the most organized. It acknowledged four types of car parking within the city centercommuter car parking, tourist car parking, long stay and short stay car parking. Commuter car parking was located at the junctions of arterial roads and link roads to maintain accessibility. These parking provisions were provided for the commuters who would be facilitated by park and ride or park and share facilities. Long stay parking facilities were provided along the arterial streets. The numbers of parking provisions were on the basis of existing employment and potential future employment opportunities. Short stay parking provisions were provided in the core of the city centers. Parking charges were involved in the case of short stay parking. Lastly, tourist car parking provisions were designed to be located at the key locations in the city center to facilitate the movement of the tourists and to encourage walking [18].

4.2. Response Strategy for Constriction **Problem**

The surrounding area of the Motifheel City Center is already built up. This creates a problem regarding the expansion of the city center. A similar kind of situation arose in the Armagh City Center. It was difficult for the city center to expand because areas of greater sensitivity with respect to flood plains, archeology and topography were surrounding the city center. Encroachment of those lands for development activities was inappropriate. So during the development of these areas, potential environmental and socio-economic impact on the city center was kept in mind. In the regeneration master plan of the city center, the development of these brown fields was highly prioritized in comparison with the Greenfield development [18]. The situation of the Motijheel City Center is a bit more complicated compared to Armagh City Center since the surrounding is already built up. But there is no doubt that case study such as these might provide a way out of this problem.

5. Probable Proposals for Regeneration of Motijheel Commercial Area

Considering the existing congestion and constriction problem of Motijheel and the techniques adopted in different countries to resolve these problems, some probable regeneration

strategies for Motijheel C/A have been proposed in this section.

As previously mentioned, traffic congestion in Motijheel C/A mainly occurs due to- location of the bus stops near the intersections, inadequate parking provisions and lastly no segregation between motorized and non-motorized traffics. So the proposals for the solution of traffic problems will focus on these issues. Firstly, the bus stops should be relocated from the intersections to the links of the main roads. As the location of bus stoppages near the intersections disrupts the mobility of the vehicles, relocation of the bus stoppages might result in increased mobility and reduced congestion. They can be relocated on the three major roads of the Motijheel C/A, within a distance of 300-400 meters, in accordance with the standards maintained by various countries [27]. Also since buses of various routes and companies operate in the area, the stoppages should be located in a cluster where each cluster will consist of tickets of all possible routes. Absence of segregation between motorized and non-motorized vehicles and excessive traffic congestion resulting from it is common in Dhaka City. Even though almost 84 percent of the trips are made by pedestrians and non-motorized traffics, they often remain neglected during the planning process [28]. As a result, non-motorized vehicles likerickshaws, which are comparatively affordable and environment friendly, get banned from most of the major roads. Such banning deteriorates the overall situation as the non-motorized vehicles get replaced by an increasing number of motorized vehicles, resulting in more traffic and pollution [29]. This situation can be avoided by providing separate lanes for non-motorized vehicles, pedestrians, public buses and private cars. Provision of such separate lanes will acknowledge the importance of all types of transports. Also this might prove to be a much efficient solution rather than building more roads, widening roads, construction new flyovers and expressways [29]. The street hawkers who greatly disrupt the free movement of pedestrians should not be evicted from their current location only to improve the congestion situation of the CBD. Rather, they can be relocated to a separate place as they play an important role in the informal economy of Dhaka City [30]. Provisions should be made along with the pedestrian precincts to accommodate these informal commercial activities. Such provisions will aid to flourish the informal economy as well as lead to the development of a vibrant CBD.

On-street parking problem in Motijheel C/A can be solved in two steps. The first step involves the enforcement of full restriction on on-street parking, just like Fort McMurray and Liverpool City Center [17, 19]. The second step is to provide adequate

number of parking spaces that will serve the demand. Many commercial buildings in Motijheel C/A provide adequate amount of off-street parking spaces (Field Survey, 2013). These spaces should be fully utilized. Low-storied buildings should be replaced by high-storied buildings that will provide an increasing amount of parking spaces. Proper utilization of these spaces could ensure the solution of the on-street parking problems.



Figure 5.1: Underutilized building clusters in Motijheel

Source: Field Survey, 2013

The present constriction problem of Motijheel C/A can be solved by proper intensification of land uses. There are some underutilized lands in Motijheel where low storied buildings (less than 6 storied) are located in a clustered manner. Some of these underutilized building clusters have been identified from the field survey which is shown in Figure 5.1. These buildings should be demolished and reconstructed with a minimum height of 10 stories. Adaptation of this strategy will ensure optimum utilization of land as well as facilitate vertical expansion of Motijheel by providing more space for future commercial and economic development.

6. Conclusions

Motijheel C/A is one of the oldest CBDs of Dhaka City. Being the center of commercial and administrative activities, this CBD is attracting more people and activities every year. So it is inevitable that the CBD will gradually lose its functional efficiency unless appropriate measures

are taken. Now decentralization of activities from Motijheel could be a good option in this regard. But given the socio-economic condition of the country, it is not feasible to discard Motijheel as the CBD and develop a new CBD. This necessitates the revitalization of Motijheel C/A to make it more effective and functionally efficient. This paper focused on the existing problems of Motifheel C/A and made an attempt to justify the necessity of urban regeneration in the area. It identified that the existing transportation system in Motijheel is facing several problems, includingsevere traffic congestion, inefficient public transport system, inadequate parking space and lack of pedestrian friendly facilities, etc. Many CBDs throughout the world have also faced similar problems and have come up with different ideas and techniques to solve them. This study illustrated a few of those techniques that could be successfully adopted in Motijheel to resolve the existing transportation issues. It further revealed that there is hardly any scope of horizontal development in Motifheel C/A. Given the high land price in the area, more focus should be given on the vertical development of the CBD and on making efficient use of underutilized lands.

The findings of this study will help the policy makers to address the need of urban regeneration in Motijheel C/A. The proposals suggested here will also be a good help in revitalizing the CBD and making it functionally more efficient.

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Glossary:

DAP: Detailed Area Plan

Katha: Local unit of land measurement. (1 Katha= 66.92

square meters)

BDT: Bangladesh Taka. 1USD =77. 80 BDT (Source:

Bangladesh Bank, accessed on 12/10/2015)