**Measuring Ownership Housing Affordability of Middle Income People in Dhaka City**

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**Introduction**

Housing is considered as one of the most important urban issues in both developed and developing countries. Housing problems, visible or not, are largely centered on affordability. This problem is severe in the metropolitan areas, especially in the capital city of Dhaka. Housing affordability means the ability to afford housing. Every household should be able to afford a decent home without impairing their ability to spend on other basic necessities. Though middle income groups of Dhaka have performed the core economic activities of the country; yet, surprisingly, they are the most neglected sector of the community. They suffer from inadequate, unaffordable housing and community facilities, among other problems. The housing affordability problems of that group did not get proper attention either in academic research or in policy formulation. There is however little research focusing on the middle income group and different housing provisions based on their real affordability. Housing affordability of middle-income group is decreasing day-by-day. Enabling the moderate income groups to afford an acceptable housing standard is a major concern (Chowdhury, 2013). Affordable housing is very necessary for the planned growth of a city. But without knowing correct affordability scenario, further steps to reduce affordability problems cannot be taken. So, measuring housing affordability is important for a sustainable city.

**Objective of the Study**

This study has been aimed at achieving the following objectives:

* To measure the ownership affordability of middle income groups in public and private residential housing in Dhaka.
* To develop some recommendation to enhance ownership affordability of middle income group in Dhaka city.

**Methodology**

This research followed qualitative method. In this research target population is middle income group. To measure ownership affordability both the ratio approach and residual income based approach are used. Both primary and secondary data are used to conduct this study. Questionnaire is designed to collect information about housing price, income, expenditure etc. information of selected household. In this study, a household is chosen as a sampling unit. Sample of 80 households in public housing projects are taken from Mohammadpur residential area and and Sample of 90 households in private housing are taken from Dhanmondi, Kallyanpur, Mirpur residential area and each area contains 30 household, for collecting primary data. The sample area for the study has been selected on the basis of middle income housing. In this study, the purposive sampling technique is used. Although the sample is quite small but it is itself a representative.

**Measuring Ownership Affordability**

There is no universal approach to defining housing affordability; however, in all the approaches, ‘household income’ is the central base on which affordability is defined. The income group defined for this study as marginal (if less than 5000), Low income (5,000–13,199), Lower-middle income (13,200–24,999), Lower-middle income (13,200–24,999), Middle-middle income (25,000–49,999), Upper-middle income (50,000–99,999) and High Income (100,000+). Housing affordability can be measured by using the housing cost approach and the non-housing cost approach. Housing cost approach is also called ratio approach and non-housing cost approach is called residual-income based approach. The house-price-to-income ratio is the indicator used to measure homeownership affordability when adopting the ratio approach. There is no universal standard for that indicator; however, the international standards as portrayed in Table are used as references to measure homeownership affordability in Dhaka. A household can be considered able to afford to buy a home if it costs

|  |  |
| --- | --- |
| **Level of affordability** | **Accepted value of house price to income ratio** |
| Affordable | 3.0 or less |
| Moderately unaffordable | 3.1 - 5.0 |
| Severely unaffordable | 5.1 and above |

Table: House price to income ratio for different income groups in Dhaka

Source: Chowdhury, 2013

But in case of residual income based approach, there are no specific accepted value. However from the analysis of the survey and interview data reveals that the amount required to afford a minimum standard of living (the monetary level of a minimum standard of adequacy for non-housing necessities) is BDT 20,000.

**Ownership affordability in Public Housing**

Mohammadpur residential area is selected for measuring housing affordability in public housing. From the survey of 80 middle income households about 11% lower income group, 74.1% middle-middle income group and 14.9% upper middle income group are found.

**Using the ratio approach: House-price-to-income ratio**

Apartment prices in Dhaka continue to remain high. The median house price is found to be BDT 4,500 per square foot and the median apartment size is 1,000 square feet. whereas the median monthly household income is BDT 44,330 and consequently the price to income ratio has reached as high as 10.

Table: Housing price to income ratio and level of affordability

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Income Group** | **Income** | **Housing Price per sq.ft** | **Housing price to income ratio** | **Level of affordability**  |
| Lower middle | 21,000 | 4,500 | 21.4 | Severely unaffordable |
| Middle-middle | 37,000 | 4,500 | 12.1 | Severely unaffordable |
| Upper middle | 75,000 | 4,500 | 6 | Severely unaffordable |

Source: Field Survey, 2018

The survey conducted for this research reveals that the ratio for all sub-category of middle income group is surprisingly high that of even the extreme un-affordability ratio (5.0) referred in the study. From the Table it is seen that in Dhaka the house-price-to-income ratio is much higher for the middle-middle and lower-middle income groups than for the higher-middle income groups. Though the upper middle income group are moderately unaffordable. The market is more inclined to focus on the more affordable higher-middle income groups, higher income groups than on other income groups.

**Using the residual-income based approach**

The residual-income based approach of housing affordability implies that a household has a housing affordability problem if it cannot meet its non-housing expenses after paying for housing. It is argued that in some ways this approach gives a more accurate picture of affordability than price-income ratios. The higher the residual income, the more affordable the housing, in the sense of having some income left over to buy other items. From the table it is seen that for lower middle income group the residual income is too limited to meet the amount required to afford a minimum standard of life. Middle-middle income group are better than lower middle group as their residual income is positive but not so positive to own a house. They also suffer severe affordability problem to own a house. Residual income of upper middle income group is high than other two groups but not so high to own a house. To own a house they also have to face problem.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Income****group** | **Monthly income in BDT (Mode)** | **Housing expenditure****(as percentage of monthly income)** | **Residual income (Mode)** | **The amount required to afford a minimum standard of life (including non-housing cost)** |
| Lower middle | 21,000 | 12,500 | 8,500 |  20,000 |
| Middle-middle | 37,000 | 14,140 | 22,860 |
| Upper middle | 75,000 | 40,000 | 35,000 |

Table: Housing affordability using residual-income-based approach

Source: Field Survey, 2018

Above table reveals that the total monthly income of the middle income group is not adequate to maintain a minimum standard of living in the prevailing social and economic context of Dhaka. The difference between the residual income of that group and the amount required for a minimum standard of living is therefore insignificant and in no way undermines the housing affordability problems of this group.

**Ownership affordability in Private Housing**

Dhanmondi, Kallyanpur and Mirpur residential area is selected as case study of this research. In each area about 30 households are surveyed. House price to income ratio and residual income based approach is used in this study to measure housing affordability.

**Using the ratio approach: House-price-to-income ratio**

The below table shows the housing price to income ratio and level of affordability of middle income groups in private housing.

Table: Housing price to income ratio and level of affordability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project** | **Income Group** | **Income (Mode)** | **Housing Price per sq.ft (Mode)** | **Housing price to income ratio** | **Level of affordability** |
| Dhanmondi | Lower middle | 23,000 | 4,000 | 17 | Severely unaffordable |
| Middle-middle | 48,000 | 9 | Severely unaffordable |
| Upper middle | 95,000 | 4.2 | Moderately unffordable |
| Kallyanpur | Lower middle | 24,000 | 4,500 | 18 | Severely unaffordable |
| Middle-middle | 41,500 | 11 | Severely unaffordable |
| Upper middle | 90,000 | 5 | Moderately unffordable |
| Mirpur | Lower middle | 23,500 | 4,500 | 19 | Severely unaffordable |
| Middle-middle | 45,000 | 10 | Severely unaffordable |
| Upper middle | 85,000 | 5 | Moderately unffordable |

Source: Field Survey, 2018

From the table it is seen that in Dhanmondi, kallyanpur, Mirpur residential areas lower middle and middle-middle household are severely unaffordable and upper middle income group are moderately unaffordable to own a house. In private housing projects lower middle, middle-middle income households are severely unaffordable to buy a house and upper middle income group are moderately unaffordable in case of ownership affordability.

Table: Housing price to income ratio and level of affordability

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Income Group** | **Income** | **Housing Price per sq.ft** | **Housing price to income ratio** | **Level of affordability** |
| Lower middle | 23,000 | 4,330 | 18.8 | Severely unaffordable |
| Middle-middle | 44,830 | 4,330 | 9.6 | Severely unaffordable |
| Upper middle | 90,000 | 4,330 | 4.8 | Moderately unffordable |

Source: Field Survey, 2018

**Using the residual-income based approach**

The below table shows the income expenditure pattern of the middle income households and their residual income to afford a minimum standard of life.

Table: Income expenditure pattern of surveyed respondent

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| --- | --- | --- | --- | --- | --- |
| **Project** | **Income****group** | **Monthly income in BDT (Mode)** | **Housing expenditure** | **Residual income (Mode)** | **The amount required to afford a minimum standard of life (including non-housing cost)** |
| Dhanmondi | Lower middle | 23,000 | 19,500 | 3,500 | 20,000 |
| Middle-middle | 48,000 | 23,000 | 25,000 |
| Upper middle | 95,000 | 40,000 | 55,000 |
| Kallyanpur | Lower middle | 24,000 | 20,500 | 3,500 | 20,000 |
| Middle-middle | 41,500 | 22,333 | 19,167 |
| Upper middle | 90,000 | 35,000 | 45,000 |
| Mirpur  | Lower middle | 23,500 | 20,000 | 3,500 | 20,000 |
| Middle-middle | 45,000 | 22,000 | 23,000 |
| Upper middle | 85,000 | 35,000 | 50,000 |

 Source: Field survey, 2018

From the table it can be seen that in Dhanmondi, Kallyanpur and Mirpur residential area upper middle income has relatively high residual income than the lower and middle income households. That means the upper income group face less affordability problem to own a house than the other groups.

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| --- | --- | --- | --- | --- |
| **Income** | **Monthly Income in BDT (Mode)** | **Housing expenditure** | **Residual Income (Mode)** | **The amount required to afford a minimum standard of life (including non-housing cost)** |
| Lower middle | 23,500 | 20,000 | 3,500 | 20,000 |
| Middle-middle | 42,900 | 23,595 | 19,233 | 20,000 |
| Upper middle | 90,000 | 36,660 | 53,340 | 20,000 |

Table: Housing affordability using residual-income-based approach

Source: Field Survey, 2018

From the survey it is found that the amount required to afford a minimum standard of lifeis 20,000. But it is clearly seen that the difference between the residual income of lower middle and middle-middle income group and the amount required for a minimum standard of living is therefore insignificant and in no way undermines the housing affordability problems of these group. In case of upper middle households residual income is higher thanamount required to afford a minimum standard of life.

**Major Findings**

In public housing located at Mohammadpur, all sub-group of middle income households are found severely unaffordable in case of both ratio approach and residual income based approach. In private housing projects located at Dhanmondi, Kallyanpur, Mirpur lower middle, middle-middle income group are severely unaffordable and upper middle income group are found moderately unaffordable.

**Recommendation of the Study**

To enhance ownership affordability of middle income groups, affordable housing problems in Dhaka city need to be solved. Following are the major recommendation to enhance housing affordability of middle income people:

**Increase construction of low rent high rise apartment housing**

High rise apartments with low rent is an ultimate solution to reduce the housing affordability problems of middle income peoples in Dhaka. Low rent will enhance the housing affordability and high rise building will reduce the cost and land requirements by accommodating a good number of people in one piece of land.

**Reduce corruption in plot distributions**

Corruption is common in plot distribution of public housing projects. Appropriate mechanism has to be developed to ensure that housing units going to the target group and allottees are able to afford the housing units.

**Reduce the booking amount**

Present booking amount and down payment of the private and public housing is beyond the affordable limit of middle income groups. The real estate companies should take maximum 20,000 taka as booking money. Reducing the amount of booking money and amount of down payment can lessen the financial stress on the middle income group.

**Reduce barriers to affordable housing development**

Demand for middle income housing is rising, but they are still in dilemma in providing such apartments. Unavailability of housing mortgage with low interest rate, absence of resale market, property tax and transfer fee etc. problems need to be reduced through provision of apartments on cheap land with low construction costs, long-term housing finance for middle-income households, introducing resale market etc.

**Effective public private partnership**

In 2010, Public Private Partnership authority developed with the aim to reduce housing affordability problems. But this authority introduced only two projects in Dhaka which is not implemented till now. Tendering is a long time required and complex process which hinders the projects implementation. The both authority only seeks their own interest. These problems are needed to be vanished to reduced affordability problems.

**Conclusion**

Affordable housing is very important for a planned growth of a city. Housing the middle income people is always a challenge. People from all socio-economic background in Dhaka are facing housing problem where middle income group are the worst sufferers. By analyzing the factors, the study revealed that existing housing provisions by both public and private sectors are unaffordable for middle income households in case of ownership affordability. In public housing all middle income group households are found severely unaffordable and in private housing lower middle and middle-middle are severely unaffordable and only upper middle income group are found moderately unaffordable to own a house. So, to enhance the housing affordability particularly for middle income people, the government needs to take the major initiatives to arrange special projects for government employees and for middle income groups, easy loan system. But government alone can’t meet the huge housing requirement. As the real estate sector is playing a vital role in housing provisions, they need to be motivated to meet the housing demand of the middle income group. The cooperation and coordination between public and private sector is required to ensure progress in providing affordable housing for middle income people in Dhaka city.

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