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

Table 1: House price to income ratio for different income groups in Dhaka

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

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 2: 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.

Table 3: Housing affordability using residual-income-based approach

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	

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 4: 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 5: 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

Table 5 shows the income expenditure pattern of the middle income households and their residual income to afford a minimum standard of life.

Table 6: Income expenditure pattern of surveyed respondent

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.

Table 7: Housing affordability using residual-income-based approach

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

Source: Field Survey, 2018

From the survey it is found that the amount required to afford a minimum standard of life is 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 than amount 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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