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Negotiation with Domestic Unit by the Middle-class Households of Dhaka City

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ABSTRACT

A domestic unit means a physical area that is normally occupied by one family. Which can be alternatively termed as a house. A domestic unit contains some distinguished spatial facilities. These facilities and the overall domestic unit or house vary according to the economic status of the inhabitants. The middle-class is a kind of economic class of people who simply represent a range along the income continuum (a group that lies between the poor and the rich) and social class. In an overcrowded metropolitan like Dhaka, middle-class households have to negotiate their requirements with the physical facilities of a domestic unit. This article is a multidisciplinary thought piece that seeks to establish the concept of the domestic unit and its relationship to affordability for middle-class people in the context of intensive urbanization. This study is based on both primary and secondary data. Primary data has been collected through case study surveys and interviews. Secondary data has been used to get an overview of the middle-class people and the domestic units. Finally, observations on their living and recommendations have been presented. Middle-class households expense almost one-third of their total income for housing. The size of the domestic unit is primarily dependent on income rather than the family size and housing demand. Middle-class households always have to negotiate six domestic components with their functional requirements, family size, and income.

1. Introduction

Housing is characterized as the overall residential area or micro-district, which includes the physical structure, as well as all appropriate amenities, facilities, and infrastructure for an individual's or family's total health and social well-being (Schoenauer, 1981). It is seen as the physical environment in which the family and society's basic units develop and sustain (Rashid, 2019). A domestic unit is a dwelling-place used as a permanent or semi-permanent residence for an individual, family, household or several families in a tribe (Rashid and Khan, 2021). It is often a house, apartment, or other building or any other type of shelter. Homes typically provide areas and facilities for sleeping, preparing food, eating, recreation, social and hygiene for the physical and mental wellbeing of the inhabitants (Rashid, 2020a). Economically, housing represents a major portion of the family budget, yet in the

realm of private and public investment, the built environment represents a man's most tangible material asset (Rashid, 2015, 2019, 2020b).

Domesticity is considered as an area, or a mental domain, that extends beyond the house's material, concrete spatial, and bodily boundaries (Rashid, 2013). It is a multifaceted realm concerned with human beings' intimate state and their needs for security, treatment, relaxation, healing, and enjoyment (Mallett, 2004; Bachelard, 2014). The identity of the home is constantly being redefined; it expands and contracts, and increasingly depends not only on a specific physical interior but also on a network of urban places (Martella and Enia, 2020).

A household is made up of all the people who live in a given housing unit. A household is described as a 'housing unit,' which is a single, spatially delimited physical structure. The household can be seen from both a

geographical and a social standpoint. Its design takes into account ecological, demographic, and economic realities that can make it difficult for people to find suitable living arrangements (Schwimmer, 2003).

Many researchers contend that 'housing affordability is a common way of summarizing the complexities of housing issues in many countries, and often illustrates the concepts of 'housing crisis,' 'housing demands,' and 'housing issues' (Haffner and Hulse, 2021). Linneman and Megbolugbe (1992) confirm that housing research had shifted its focus towards housing affordability, homeownership and privatization in the 'middle-class households' (Linneman and Megbolugbe, 1992).

The Global Financial Crisis (GFC) ushered in a new age of housing affordability challenges across a wider spectrum of advanced economies (Haffner and Hulse, 2021). More recent literature on housing affordability has begun to reframe housing affordability as an urban issue (Wetzstein, 2017). This is taking place in the sense of a global urbanization megatrend characterized by an increase in the number of major cities and unending mobility within them. Housing affordability was mainly seen as a social policy concern in the twentieth century, with a focus on the relationships between housing, non-housing spending, and income poverty (United Nations, 2001). Regardless of the scale or extent of industrialization, almost all developed countries are undergoing rapid urbanization as scarce agricultural land and increasing agricultural communities begin to drive families from rural areas to cities and major metropolitan areas (Huth, 1989).

The middle class may simply represent a range along the income continuum (a group that lies between the poor and the rich) and social class (a group lying between the working class and the 'upper' class). To the extent that variables such as consumer spending and education vary monotonically with income, the middle class will possess higher values of these attributes than the poor (but less than the rich). According to Banerjee and Duflo (Banerjee and Duflo, 2008), middle-class people are far more likely than poor people to have salaried employment. Indeed, the most critical distinction between the poor and the middle class is getting a daily, well-paid salaried career. The middle class is, therefore, more likely to migrate to their current place of work and home, to have a smaller family size, to take their children to school (especially private schools), and to seek more costly medical services while they are sick. Another trait of the middle class is geographic concentration. In most nations, the middle class is overwhelmingly metropolitan, as one would assume.

The confusion about the definition of the middle class is not only limited among the common people. Economists and social scientists also struggle to find a common ground when it comes to defining this class. In Bangladesh, the typical middle-class category is a social

and cultural construct, but economic features are gradually becoming important in describing the middle-class. People earning under 2 USD per day are considered poor. So, some leading researchers, including Nobel laureates Abhijit Banerjee and Esther Duflo, have used definitions like earning 2 USD - 6 USD per day to be categorized as the lower middle class or 6 USD – 10 USD per day as the upper-middle-class (Banerjee and Duflo, 2008). According to another simple description by Mujeri (2021), people who receive between 2 USD and 20 USD a day are considered middle-class (Mujeri, 2021).

Dhaka, the capital of Bangladesh, is the most crowded city in the world. More than 19.5 million people live in Dhaka. It is the most densely populated city in the country spanning More than 23,234 people per square kilometre, just over half a square mile. It is reported that 2,000 people move to Dhaka every day (Lansat, 2018). At present, 20 per cent of the population belongs to the middle-income category (Khan, 2019).

2. Methodology

The objective of this study is to identify the way by which the middle-class residents of Dhaka city is negotiating their household with their domestic units. The study has been designed in two parts: a theoretical part based on the literature review of the existing theories, background and analysis, and an empirical part based on field survey and interviews in the local context. This study is based on both primary and secondary data. Primary data has been collected through case study surveys and Key Informant Interviews (KII). The survey data have been interpreted into an analysis of houses with plans, photographs and description. Interviews were collected from the dwellers. The secondary data source includes research papers and articles, dissertations, newspaper articles, government census reports. The methodology can be explained into following steps:

1.   Literature review: to get an overview about the middle-class people and the domestic units through secondary sources e.g., published literature, scholarly articles, newspaper, published statistics etc.

2.   Case studies: a total of 25 households owned by middle-class family are selected on a random basis with some basic criteria. One of the basic criteria was the household comprised of a nuclear family. Another criterion was the family do not share the household with another family.

3.   Key Informant Interviews (KII): Interview was done among the representatives of the case study households, most of the cases are the family heads. A total of 25 KII were taken place to receive the demographic and economic data.

The interviews were taken through an informal

pattern of questions. The informal pattern of the questions allowed the respondents to discuss their living patterns, employment, and income generation freely and with less inhibition. The conversations were all noted down and, in some cases, taped for saving time. Finally, observations on their living and recommendations have been presented. This study is an outcome of an undergraduate study of thirteen students of the Architecture Department of the Southeast University of Dhaka, Bangladesh took place in the year 2020. The study conducted as a part of the Design Studio under the supervision and leadership of the author.

3. Development of Domestic Spaces in Housing

In the second half of the nineteenth century, amid the urban environments that resulted from the industrial revolution, housing attracted the interest of social investigators and scientists (Dodson, 2012). For the past three centuries, houses have evolved dramatically. A variety of influences have influenced the evolution of our homes, including the availability of building materials, the invention of indoor plumbing systems, innovations in engineering, regulatory subsidies, technology, family size, and a general increase in living standards. As a result of these developments, family and social relationships have evolved and transformed. More personal space and privacy are now a possibility (Lawrence, 1982). Small houses were built in large numbers in cities during the first half of the nineteenth century. Different activities of the house were compartmentalized into separate areas throughout the nineteenth century. The public and private areas were separated. The bedroom, like most other rooms, was mainly invented in the late 18th and early 19th centuries. Until that time, all but the wealthiest colonists lived in one or two houses, with beds strewn around their homes while they were not in use (Mason, 2021). There was no need to provide storage spaces for products in the twentieth century when urban people are no longer manufacturers, but consumers. Homes are split into a number of private areas for individual use and shared fewer experiences as a family.

Before the digital and gender revolutions of the modern age, the home was largely regarded as a self-contained microcosm, with the city serving as its receptacle. Recent socioeconomic, economic, political, technical, and cultural shifts have ushered in new ways of life that are quickly changing both domestic and urban life. (Martella and Enia, 2020). The uniqueness in domestic spaces of housing in recent decades has been the constant evolution of how people use space in their homes. And when people change these spaces, so do the people who live there. Demographic, fiscal, lifestyle, environmental, and technological developments and stresses have all contributed to these transitions. New spaces such as home offices and media rooms have emerged, while old spaces such as dining rooms are being repurposed as television or computing rooms. Video games, smartphones, and the Internet serve to divide and claim more personal space, dividing residents from others with whom they share their homes (Wright, 1983).

With its own tv, toilet, and telephone, the middle-class bedroom has become increasingly intimate. Many middle-class parents have built an enormous barrier between themselves and their children. Similarly, the children have followed suit and now have their own personal bedrooms. The number of larger households has grown since the 1960s, although the total number of household inhabitants has decreased sharply (Mitlin, 2012). As a result, most children have their own bedroom. Most people consider this fact to be a right, not a luxury. Radios, televisions, laptops, and telephones are often seen in the halls, which have a dedicated space for schoolwork.

4. Discussion

Surveyed 25 households are situated in different locations of Dhaka city. 20 out of this 25 are occupied a rental house. They are of different size in different locality.

4.1. Family size

The term "family size" refers to the total number of individuals that make up a family unit. Person development and social relationships in diverse cohorts are affected by family size, which is a cultural feature indicator that can alter with time (Thomson, 2015). In the present discussion, family size is defined in terms of the total number of children and adults in the household. Among the survey households, the average family size is 4.9 person where the minimum number is found 3 and maximum is 8 persons in a family which comprises both children and adults.

4.2. Household income and expenditure

The overall amount of money received by each member of a single household is referred to as household income. Wages, pensions, pension gains, savings plans, and welfare benefits are all sources of family revenue. (Bureau, 2016). The average household income found by the case study households is 75,088 BDT (86 BDT =1 USD) per month. Where the minimum amount is 25,000 BDT and the maximum amount is 1,30,000 BDT. The average earning member for each household is 1.9 persons. The monthly household income may be calculated per person per day basis; which is 513 BDT on an average (6 USD approx.) and a minimum of 208 BDT and a maximum of 1000 BDT (2.4 USD to 11.7 USD approx.) (Figure 1)

Table 1: Primary datasheet of case study households.

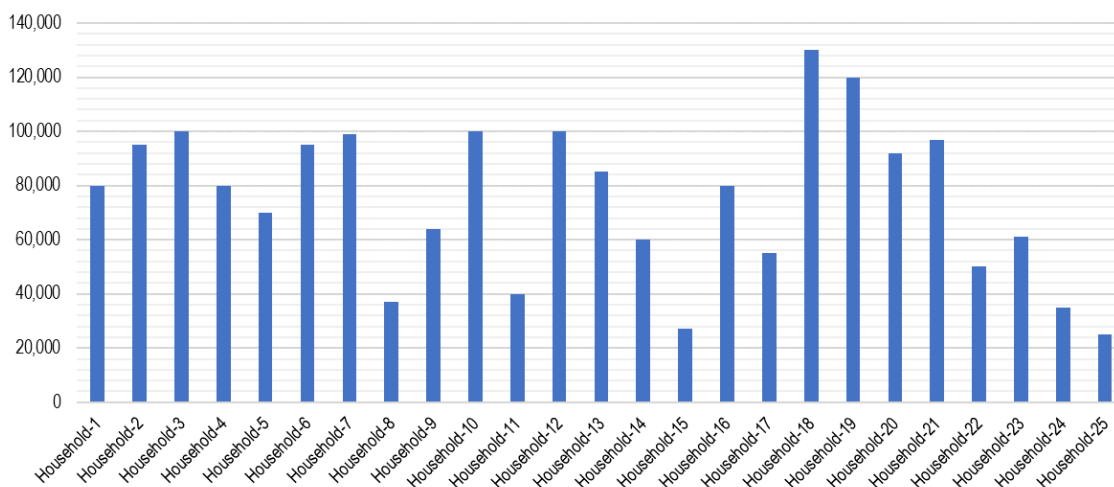| Cases	Ownership	Family size	House area (SFT)	Area per person (SFT)	Earning member	Monthly Household Income (BDT)	Income/person/day (BDT)	Housing Expense	Education Expense	Livelihood Expense	Medical Expense	Monthly Expenditure	Savings
Household-1	Rental	6	756	126.0	4	80,000	444	25,000	15,000	22,000	5,000	67,000	13,000
Household-2	Rental	6	720	120.0	3	95,000	528	24,500	30,000	20,000	20,000	94,500	500
Household-3	Rental	5	1000	200.0	2	100,000	667	28,000	30,000	30,000	5,000	93,000	7,000
Household-4	Owner	5	620	124.0	2	80,000	533	12,000	20,000	40,000	3,000	75,000	5,000
Household-5	Rental	4	1050	262.5	1	70,000	583	19,000	18,000	27,000	2,000	66,000	4,000
Household-6	Rental	4	1100	275.0	2	95,000	792	21,000	13,000	57,000	3,000	94,000	1,000
Household-7	Owner	5	1400	280.0	3	99,000	660	6,800	35,000	34,000	18,000	93,800	5,200
Household-8	Rental	3	410	136.7	1	37,200	413	12,400	5,000	11,000	5,000	33,400	3,800
Household-9	Owner	8	1440	180.0	3	64,000	267	7,000	15,000	28,700	6,200	56,900	7,100
Household-10	Rental	5	1250	250.0	2	100,000	667	16,200	20,000	30,800	1,200	68,200	31,800
Household-11	Rental	3	620	206.7	1	40,000	444	9,000	8,000	16,000	2,000	35,000	5,000
Household-12	Rental	6	1500	250.0	2	100,000	556	27,000	20,000	20,000	10,000	77,000	23,000
Household-13	Rental	6	880	146.7	3	85,000	472	25,000	9,000	24,000	8,000	66,000	19,000
Household-14	Owner	4	1330	332.5	2	60,000	500	12,300	7,000	20,000	10,000	49,300	10,700
Household-15	Rental	4	600	150.0	2	27,000	225	8,000	5,000	9,000	5,000	27,000	0
Household-16	Owner	5	1480	296.0	3	80,000	533	6,500	25,000	20,000	10,000	61,500	18,500
Household-17	Rental	4	1020	255.0	2	55,000	458	13,500	15,000	20,000	2,000	50,500	4,500
Household-18	Rental	6	1350	225.0	1	130,000	722	22,500	30,000	60,000	10,000	122,500	7,500
Household-19	Rental	4	1050	262.5	1	120,000	1,000	19,000	25,000	42,000	5,000	91,000	29,000
Household-20	Rental	7	1460	208.6	1	92,000	438	22,000	10,000	30,000	10,000	72,000	20,000
Household-21	Rental	5	875	175.0	1	97,000	647	15,000	25,000	15,000	30,000	85,000	12,000
Household-22	Rental	4	586	146.5	1	50,000	417	16,500	10,000	15,000	5,500	47,000	3,000
Household-23	Rental	5	1040	208.0	2	61,000	407	17,500	19,500	14,000	9,500	60,500	500
Household-24	Rental	4	595	148.8	1	35,000	292	13,500	3,500	11,500	2,500	31,000	4,000
Household-25	Rental	4	690	172.5	1	25,000	208	9,300	6,500	8,200	1,000	25,000	0
Average		**4.9**	**993**	**205.5**	**1.9**	**75,088**	**513**	**16,340**	**16,780**	**25,008**	**7,556**	**65,684**	**9,404**

Figure 1: Monthly household income (in BDT) of the case study households.

Household expenditure is the amount of final consumption expenditure made by resident households to meet their everyday needs, such as food, clothing, housing (rent), energy, transport, durable goods (notably cars),

health costs, leisure, and miscellaneous services. The monthly household expenditure is divided into four wide categories (Figure 2). They are:

i)   Housing expense (house rent, utility etc.)

ii)   Education expense (tuition fee of children,

education materials etc.)

iii)   Livelihood expense (everyday needs, food, clothing, transport, household goods etc.)

iv)   Medical expense (regular treatment, medication, health check-up etc.)
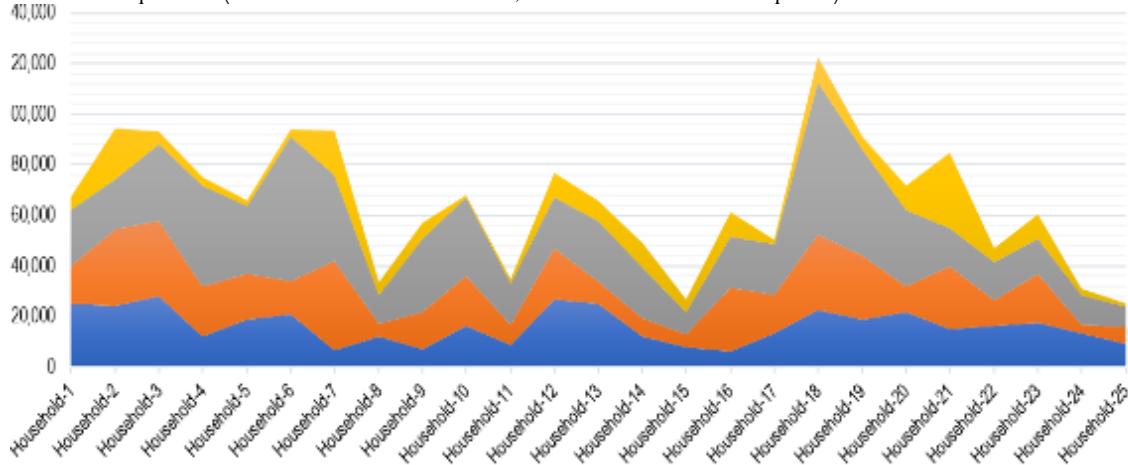

Figure 2: Monthly household expenditure (in BDT) in different categories of the case study households

The survey found that on average a household expenses 87.5% of its total household income and makes a savings of 12.5%. There are two types of house ownership founds. 20 out of 25 surveyed households are occupied a rental house. To get the actual expenditure scenario those can be analyzed.

monthly expenditure which is the largest amount right after the category of livelihood which is 37%. Next to the housing category is education which is 24.3% and the least is the medical category which is 10.9% of the total expenditure (Figure 3).

Table 2: Monthly expenditure in different categories of the rental households.

Cases	Housing Expense	Education Expense	Livelihood Expense	Medical Expense	Total Monthly Expenditure	Savings
Household-1	25,000	15,000	22,000	5,000	67,000	13,000
Household-2	24,500	30,000	20,000	20,000	94,500	500
Household-3	28,000	30,000	30,000	5,000	93,000	7,000
Household-5	19,000	18,000	27,000	2,000	66,000	4,000
Household-6	21,000	13,000	57,000	3,000	94,000	1,000
Household-8	12,400	5,000	11,000	5,000	33,400	3,800
Household-10	16,200	20,000	30,800	1,200	68,200	31,800
Household-11	9,000	8,000	16,000	2,000	35,000	5,000
Household-12	27,000	20,000	20,000	10,000	77,000	23,000
Household-13	25,000	9,000	24,000	8,000	66,000	19,000
Household-15	8,000	5,000	9,000	5,000	27,000	0
Household-17	13,500	15,000	20,000	2,000	50,500	4,500
Household-18	22,500	30,000	60,000	10,000	122,500	7,500
Household-19	19,000	25,000	42,000	5,000	91,000	29,000
Household-20	22,000	10,000	30,000	10,000	72,000	20,000
Household-21	15,000	25,000	15,000	30,000	85,000	12,000
Household-22	16,500	10,000	15,000	5,500	47,000	3,000
Household-23	17,500	19,500	14,000	9,500	60,500	500
Household-24	13,500	3,500	11,500	2,500	31,000	4,000
Household-25	9,300	6,500	8,200	1,000	25,000	0
Average	18,195	15,875	24,125	7,085	65,280	9,430
% of Monthly Exp.	27.9%	24.3%	37.0%	10.9%	87.4%	12.6%

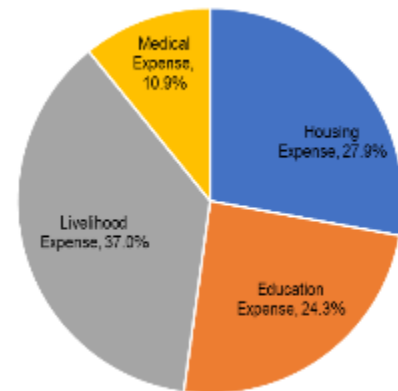An expense of 27.9% for housing purposes of its total

Figure 3: Proportion of monthly household expenditure in different categories

Among the 25 case study households, one expenses a minimum of 7% of its total expenditure. Such amount belongs to a household that has its own house and needs to pay any rent. The maximum amount found for housing expenses is 44% of a household's total expenditure (Figure 4).

4.3. Domestic unit

A domestic unit means a house, apartment or other similar residential units which is normally occupied by one

family (Lawrence, 1982; Hidayah and Shigemura, 2005). The average house area is 993 SFT (Square feet) where the minimum house area is found 410 SFT and the largest house has 1500 SFT among the case study households.

This area can be calculated on the basis of family size. The average area per person is 205.5 SFT where the minimum area per person is 120 SFT and the maximum area is 332.5 SFT (Figure 5).
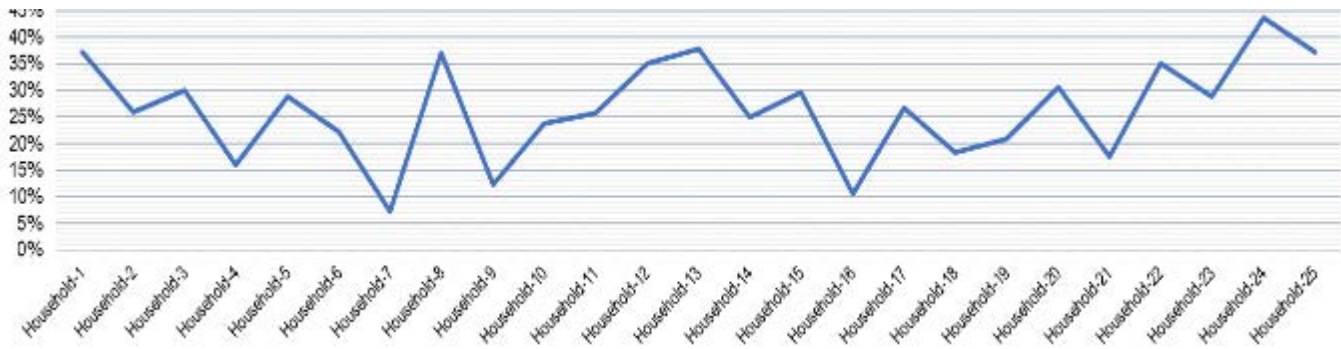

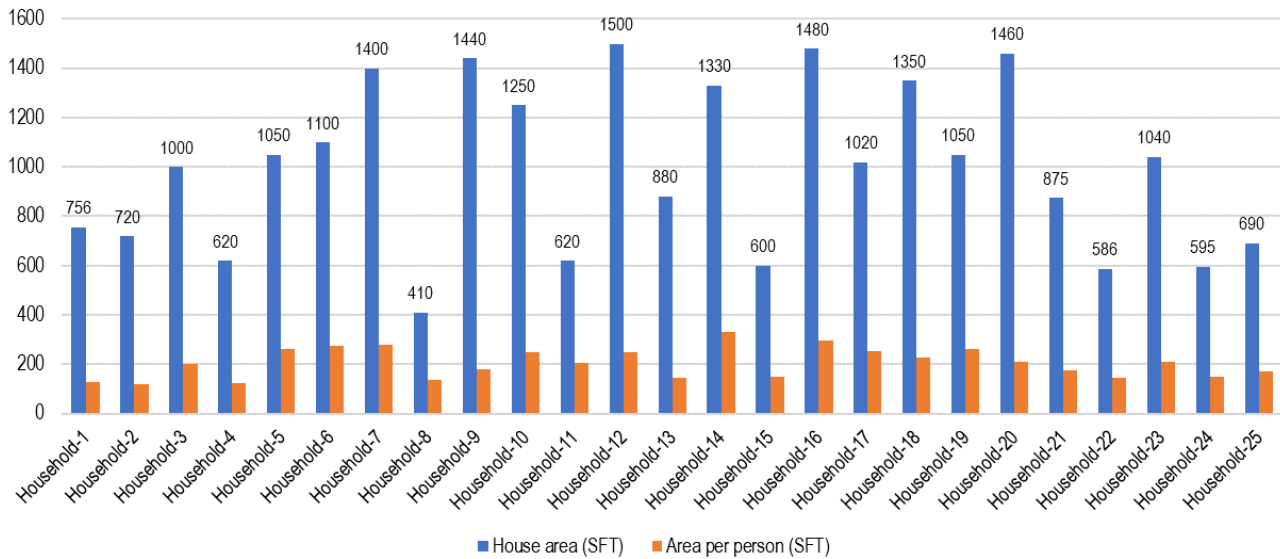**Figure 4:** Proportion of monthly household expenditure in the 'housing' category

Figure 5: Size of domestic unit and area per person of the case study households

On the basis of size, the domestic units are categorized into four types:

i)   Small units (with an area of less than 800 SFT)

ii) Medium units (with an area of 800 to 1200 SFT)

iii) Large units (with an area of 1200 to 1600 SFT)

i) Small units:
There are a total of 10 households found which have a domestic unit of less than 800 SFT. Houses with these sizes are categorized as 'Small units' (Figure 6).

ii) Medium units:
In this category, there are six cases found which has a size between 800 to 1200 SFT. Houses with this size range are categorized as 'Medium units' (Figure 7).

iii) Large units:
In this category, there are six cases found which has a size between 1200 to 1500 SFT. Houses with this size range are categorized as 'Large units' (Figure 8).

Household-1

Household-2

Household-3

Household-5

Household-4

Household-8

Household-6

Household-11

Household-13

Household-13

Household-15

Household-22

Household-17

Household-19

Household-24
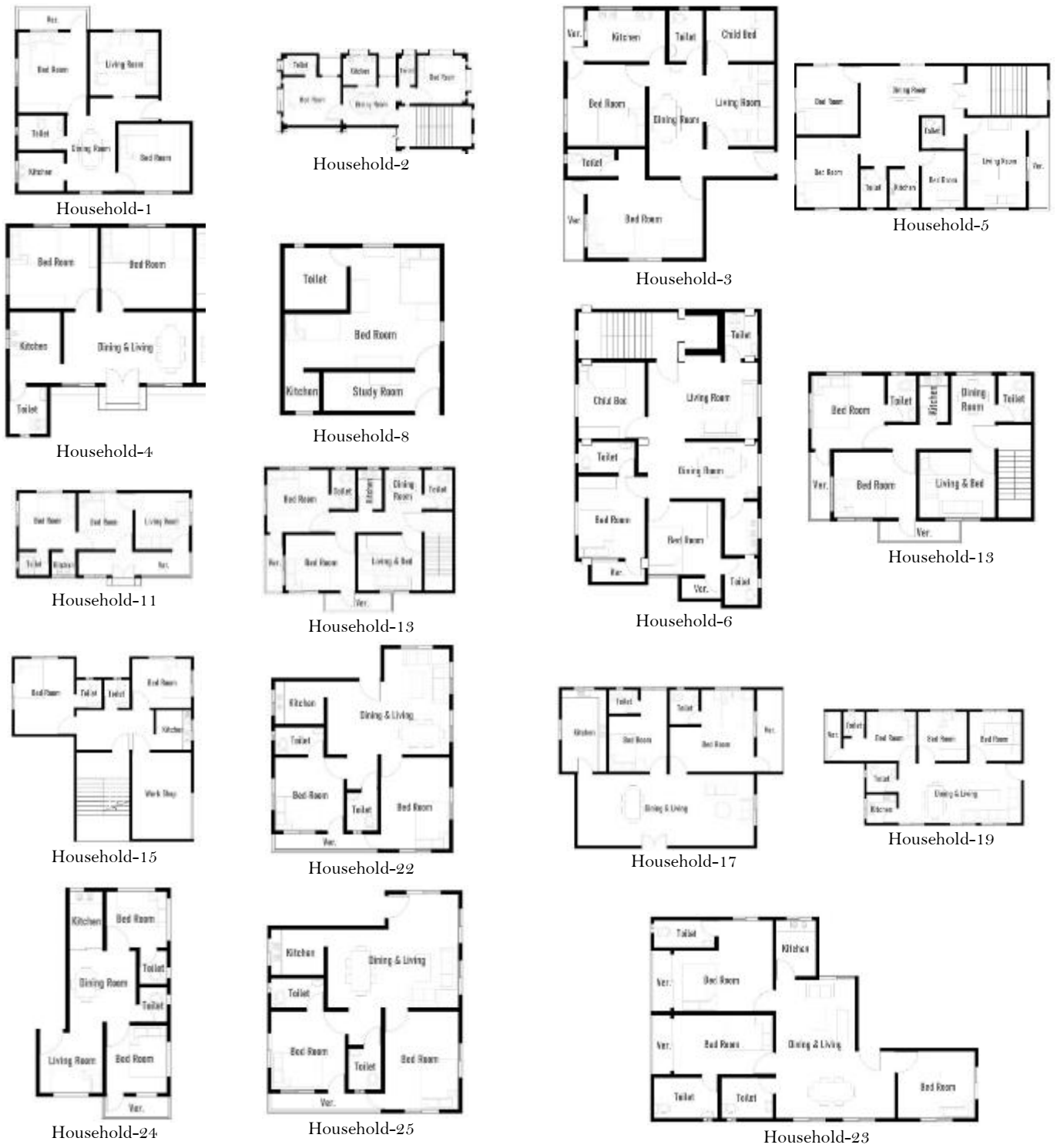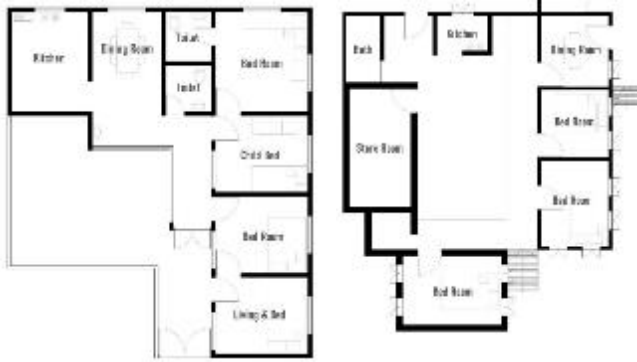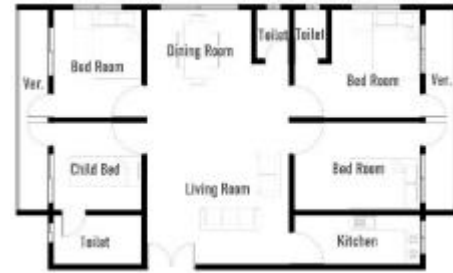
Household-25

Household-23

Figure 6: Layout of small units

Figure 7: Layout of medium units

Household-7

Household-9

Household-20

Figure 8: Layout of large units

Household-10

Household-12

Household-14

Household-16

Household-18

4.4. Space-Income Factor

There is a relationship exists between household income and the size of the domestic unit. Space-income factor represents that relationship in terms of domestic space per person and income per thousand Taka. For example, the Space-Income Factor of a household of five members which has a domestic unit of 1000 SFT and a monthly income of 100 thousand BDT, is 2.0.

The study shows that the average Space-Income Factor is 2.74 for the 25 case study households. Where the highest factor is 6.90 which indicates that the domestic area for that specific household is much bigger with the proportion of the income. But the reality is that the house area is only 690 SFT for that case, which indicates that the income is very low to afford a house of this size. On the other hand, the lowest factor is 1.26 which indicates that the house area is smaller for that specific case. There is no such standard for space-income factors established yet.

4.5. Domestic Spaces

By the study of all 25 case study households, six types of domestic spaces are found. They are

i)   Living room
ii)   Dining space
iii)   Bedrooms
iv)   Kitchen
v)   Bedrooms
vi)   Verandah

Table 3: Space-Income Factor for the case study households

Cases	House area (SFT)	Area per person (SFT)	Monthly Household Income (BDT)	Sapce-Income Factor
Household-1	756	126.0	80,000	1.58
Household-2	720	120.0	95,000	1.26
Household-3	1000	200.0	100,000	2.00
Household-4	620	124.0	80,000	1.55
Household-5	1050	262.5	70,000	3.75
Household-6	1100	275.0	95,000	2.89
Household-7	1400	280.0	99,000	2.83
Household-8	410	136.7	37,200	3.67
Household-9	1440	180.0	64,000	2.81
Household-10	1250	250.0	100,000	2.50
Household-11	620	206.7	40,000	5.17
Household-12	1500	250.0	100,000	2.50
Household-13	880	146.7	85,000	1.73
Household-14	1330	332.5	60,000	5.54
Household-15	600	150.0	27,000	5.56
Household-16	1480	296.0	80,000	3.70
Household-17	1020	255.0	55,000	4.64
Household-18	1350	225.0	130,000	1.73
Household-19	1050	262.5	120,000	2.19
Household-20	1460	208.6	92,000	2.27
Household-21	875	175.0	97,000	1.80
Household-22	586	146.5	50,000	2.93
Household-23	1040	208.0	61,000	3.41
Household-24	595	148.8	35,000	4.25
Household-25	690	172.5	25,000	6.90
Average	993	205.5	75,088	2.74

Table 4: Different types of domestic spaces in the case study households

Cases	Living room	Dining space	Bedroom	Kitchen	Bathroom	Veranda
Household-1	1	1	2	1	1	1
Household-2		1	2	1	2	2
Household-3	1	1	3	1	2	2
Household-4		1	2	1	1	
Household-5	1	1	3	1	2	1
Household-6	1	1	3	1	3	2
Household-7	1	1	3	1	2	1
Household-8		1	2	1	1	
Household-9	1	1	3	1	3	1
Household-10	1	1	2	1	2	1
Household-11	1		2	1	1	1
Household-12	1	1	2	1	2	2
Household-13	1	1	2	1	2	2
Household-14	1	1	2	1	2	1
Household-15		1	2	1	2	
Household-16	1	1	4	1	4	2
Household-17	1	1	4	1	4	2
Household-18	1	1	3	1	4	2
Household-19	1	1	3	1	2	1
Household-20	1	1	4	1	3	2
Household-21	1	1	3	1	2	
Household-22	1	1	2	1	2	1
Household-23	1	1	3	1	3	2
Household-24	1	1	2	1	2	1
Household-25	1	1	2	1	2	1

i) Living Rooms

The living room has traditionally served as a focal point for the hierarchy and identity of domestic spaces, as well as their architecture. (Martella and Enia, 2020). All of the other spaces are often connected with particular events, while the modern living room is a multifunctional space. The kitchen is where to cook, the bedroom is where to sleep, and the bathroom is where to take care of personal hygiene. On the other hand, there are no specific limitations to the tasks that can be carried out in the living room: it is just a place to work. Resting in living rooms, socialising, and performing domestic activities that symbolise family unity and reinforce relations with extended family and friends are all options.

Household-5

Household-11

Household-16

Household-18

Figure 9: Living rooms of some households

The living room can be alternatively, and sometimes simultaneously, the private resting space of the inhabitants, and also where they relate to the outside, by receiving guests or turning on devices such as a TV with a cable connection that let the world in. Because of its nature and openness towards the outside, the living room is a space more directly influenced by the ongoing social changes. It is no coincidence that it is the first and, for a long time, the only room in the house turned into an interactive multimedia centre incorporating the latest technological advances. Survey founds that 21 households out of 25 have a living room for them, though due to shortage of space some of them are simultaneously used as sleeping purpose also (Figure 9).

ii) Dining Space

A dining space is an area in a house that is used mainly for preparing meals (breakfast, lunch, or dinner), but it can also be used for other household tasks outside of mealtimes. Since most people like to eat when sitting, the dining room has furniture such as dining tables and chairs. It's normally next to the kitchen to make serving easier. The dining room is usually next to the living room, and it is increasingly used for formal dining with visitors or special occasions. According to the survey, the dining room is available in 24 of the 25 households (Figure 10). They're next to the dining room and serve as a supporting lobby for all of the other rooms.

Household-3	Household-12
Household-18	Household-23

Figure 10: Dining spaces of some households

iii) Bedrooms

A bedroom is a private space where people sleep at night or relax during the day. The bedroom is linked to a generalized conception of the home as the focus of personal leisure. Houses have at least two bedrooms, usually a master bedroom and one or more bedrooms for either the children or guests. In a bedroom, a closet is most commonly used for clothes and other small personal items that one may have. Sometimes, a master bedroom is

connected to a dedicated bathroom.

It is found that bedrooms have multiple-use other than sleeping or leisure. Many bedrooms have a TV or computer station inside it. Students have their reading desk and personal library beside their bed. A portion of the bedroom or beneath the bed is also used as a storage of the household. In the surveyed domestic units, the number of bedrooms varies widely. While 52% of households have two, 37% have three and 12% have four specific rooms dedicated for use as a bedroom (Figure 11). The average number of bedrooms is 2.6 per household.

Household-16	Household-20
Household-11	Household-21

Figure 11: Bedrooms of some households

iv) Kitchens

In modern times, the kitchen has been a focal point for domestic dynamics, serving as an operational base for the housewife in her efforts to resurrect the household's productive capacities (Martella and Enia, 2020). The kitchen is the most significant and often used functional area in the household. It's not only a place where food is prepared and consumed; it's also a place where family members can share time together, strengthen relationships, and form social ties. Several housework projects are not related to the kitchen. The kitchen is a multifunctional space regardless of its scale, functional form, or configuration. Kitchens are no longer the exclusive realm of housewives. The kitchen is a potentially unsafe environment due to the labour nature of kitchen jobs, appliances, and consumers of various ages and physical health levels. It is easy to be involved in an accident (Charytonowicz and Latala, 2011). The survey shows that most of the kitchens are compact in nature (Figure 12).

Household-15   Household-6

Household-24   Household-18

Figure 12: Kitchen of some households

v) Bathroom

A bathroom or washroom is a room, that contains a shower and a toilet is typically included in the bathroom. The inclusion of a washbasin is common. Due to space constrain a bathtub or a shower stall is not very common in households of the middle-class. In very few bathrooms, the shower zone is separated by a screen. Some bathrooms have low water closets. Bathrooms are multifunctional. They are used for personal hygiene as well as for cloth washing of the household. There are bathrooms which are attached from inside of bedrooms, they are familiar as 'attached bathroom' or 'attached toilet' to the people. On the other hand, there are bathrooms attached to the common spaces like dining or living rooms, they are familiar as 'common bathroom' or 'common toilet'.

In the surveyed domestic units, the number of bathrooms varies widely. While 16% of households have only one bathroom, 56% have two, 16% have three and 12% have four bathrooms for their households (Figure 13). The average number of bathrooms for a household is 2.24 according to the survey.

Household-5   Household-6

Household-16   Household-3

Figure 13: Bathrooms of some households

vi) Veranda

The veranda is a roofed, open-air gallery or porch, attached to the outside of a building. A veranda is often partly enclosed by a railing and frequently extends across the front and sides of the structure. In history, the veranda was a decorative element for a house, but now a day this is the only breathing space for a space-constrained urban household. In most of the case, the veranda is a small piece of area which has one or multiple sides open to the outside of the building. In all cases of the surveyed household, the veranda has multiple uses. This place is used as a small garden, cloth drying space and a place to take fresh air for the inhabitants.

The survey found that 21 households out of 25 have veranda within their domestic units. In the surveyed domestic units, the number of verandas varies. While 44% of households have only one veranda, 40% have two and 16% of households have no veranda for their households (Figure 14). The average number of verandas for a household is 1.24 according to the survey.

Household-1

Household-5   Household-7

Figure 14: Veranda of some households

5. Conclusion

The most evident and noticeable result of urbanization in developed countries is the rapid degradation of urban housing and working standards. This is because urbanization causes explosive population growth, which is accompanied by a massive increase in the population's quantitative housing needs. Since the vast majority of the population lacks the financial means to afford affordable accommodation, housing demands are not met by effective demand.

This study has shown that the design and use of domestic space and facilities are related to economic factors. Considered independently, the classification of space or the conventions for the use of rooms, tell very little about household life. The physical content of houses is thus also an inadequate means of describing the meaning and use of domestic space and facilities. Rather, there are specific ideas and meanings associated with domestic facilities.

The middle-class is unique, simply because many household characteristics are strongly correlated with living standards, which, by construction, are higher among the middles class. Likewise, the middle-class differs from the upper class because its lower standard of living lacks the attributes strongly correlated with affluence.

Middle-class households expense almost one-third of their total income for housing. The size of the domestic unit is primarily dependent on income rather than the family size and their housing demand. They tend to have regular savings to fight against uncertain vulnerability and further growth. Their domestic units are comprised of mainly six spatial components, e.g. living room, dining space, bedrooms, kitchen, bedrooms and verandah. Due to space constrain these components also have multiple uses. Middle-class households always have to negotiate these domestic components with their functional requirements, family size and income.

References

Bachelard, G. (2014) *The Poetics of Space*. Boston: Beacon Press, Boston. Available at: https://sites.evergreen.edu/wp-content/uploads/sites/88/2015/05/Gaston-Bachelard-the-Poetics-of-Space.pdf.

Banerjee, A. V. and Duflo, E. (2008) 'What is middle class about the middle classes around the world?', *Journal of Economic Perspectives*, 22(2), pp. 3–28. doi: 10.1257/jep.22.2.3.

Bureau, U. S. C. (2016) *Household Income, Investopedia*. Available at: https://www.investopedia.com/terms/h/household_income.asp (Accessed: 20 April 2021).

Charytonowicz, J. and Latala, D. (2011) 'Evolution of domestic kitchen', in *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, pp. 348–357. doi: 10.1007/978-3-642-21666-4_38.

Dodson, J. (2012) 'Social theory and housing', in *International Encyclopedia of Housing and Home*. Elsevier, pp. 506–513. doi: 10.1016/B978-0-08-047163-1.00681-0.

Haffner, M. E. A. and Hulse, K. (2021) 'A fresh look at contemporary perspectives on urban housing affordability, *International Journal of Urban Sciences*, 25(S1), pp. 59–79. doi: 10.1080/12265934.2019.1687320.

Hidayah, R. and Shigemura, & T. (2005) 'Domestic Space Arrangement of the Private Rental Housing: A Case of Urban Village Housings of Yogyakarta', *Journal of Asian Architecture and Building Engineering*, 4(1), pp. 137–142. doi: 10.3130/jaabe.4.137.

Huth, M. J. (1989) 'Urban Housing Crisis', *International Journal of Sociology and Social Policy*, 8(6), pp. 81–91. doi: 10.1108/eb013062.

Khan, S. (2019) *Middle class and sustainable development, The Financial Express*. Available at: https://www.thefinancialexpress.com.bd/views/middle-class-and-sustainable-development-1574525322 (Accessed: 25 April 2021).

Lansat, M. (2018) *Dhaka, Bangladesh is the most crowded city in the world, Business Insider*. Available at: https://www.businessinsider.com/dhaka-bangladesh-most-crowded-city-in-the-world-2018-11 (Accessed: 25 April 2021).

Lawrence, R. J. (1982) 'Domestic Space and Society: A Cross-Cultural Study', *Comparative Studies in Society and History*, 24(1), pp. 104–130. doi: 10.1017/S0010417500009804.

Linneman, P. D. and Megbolugbe, I. F. (1992) 'Housing Affordability: Myth or Reality?', *Urban Studies*, 29(3–4), pp. 369–392. doi: 10.1080/00420989220080491.

Mallett, S. (2004) 'Understanding home: A critical review of the literature', *Sociological Review*, 52(1), pp. 62–89. doi: 10.1111/j.1467-954x.2004.00442.x.

Martella, F. and Enia, M. (2020) 'Towards an Urban Domesticity. Contemporary Architecture and the Blurring

Boundaries between the House and the City', *Housing, Theory and Society*, pp. 1–17. doi: 10.1080/14036096.2020.1789211.

Mason, M. K. (2021) *Housing: Then, Now, and Future*. Available at: http://www.moyak.com/papers/house-sizes.html (Accessed: 16 April 2021).

Mitlin, D. (2012) 'Housing policies in developing countries. Sites-and-services and aided self-help', in *International Encyclopedia of Housing and Home*. Elsevier, pp. 579–584. doi: 10.1016/B978-0-08-047163-1.00238-1.

Mujeri, M. K. (2021) 'Bangladesh's rising middle class: Myths and realities', *The Financial Expresss*. Available at: https://thefinancialexpress.com.bd/views/bangladeshs-rising-middle-class-myths-and-realities-1614610680 (Accessed: 20 April 2021).

Rashid, M. U. (2013) *The Role of Rural Home-Based Enterprises on the Housing Transformation in Sirajganj*. BUET. doi: 10.13140/RG.2.2.10841.47209.

Rashid, M. U. (2015) 'Transformation of Spatial Settings of Home-Based Enterprise (HBE) induced Rural Housing in Sirajganj', *Protibesh – Journal of the Department of Architecture, BUET*, 15(1), pp. 36–54.

Rashid, M. U. (2019) 'Transformation of Housing in Low-income Settlement: A Study of Domestic Spaces in Ershad Nagar Resettlement Camp', *Nakhara: Journal of Environmental Design and Planning*, 16, pp. 119–146. Available at: https://ph01.tci-thaijo.org/index.php/nakhara/article/view/163680.

Rashid, M. U. (2020a) 'Approaches for Solutions of Housing Crisis for the Mohammadpur Geneva Camp', *Trends in Technical and Scientific Research (TTSR)*, 4(3). doi: 10.19080/TTSR.2020.04.555638.

Rashid, M. U. (2020b) 'Identification of Housing Crisis in a Confined Settlement: A study of Mohammadpur Geneva Camp', *Creative Space*, 7(2), pp. 125–142. doi: 10.15415/cs.2020.72011.

Rashid, M. U. and Khan, Z. J. (2021) 'Searching for Sustainable Housing Solution', *International Journal of Architecture, Engineering and Construction*, 10(1), pp. 1–19. Available at: http://www.iasdm.org/journals/index.php/ijaec/article/view/874.

Schoenauer, N. (1981) *6,000 Years of Housing*. New York: Garland STMP Press. Available at: https://books.google.com.bd/books/about/6_000_Years_of_Housing.html?id=AutEEtg5FM4C&redir_esc=y (Accessed: 25 April 2021).

Schwimmer, B. (2003) *Defining the Household, Department of Anthropology, University of Manitoba*. Available at: https://www.umanitoba.ca/faculties/arts/anthropology/tutor/residence/defining.html (Accessed: 23 April 2021).

Thomson, E. (2015) *Family Size Preferences*. Second Edi, *International Encyclopedia of the Social & Behavioral Sciences: Second Edition*. Second Edi. Elsevier. doi: 10.1016/B978-0-08-097086-8.31064-9.

United Nations (2001) *Human Settlements Statistics 2001*. New York. Available at: https://unstats.un.org/unsd/demographic-social/sconcerns/housing/publications/series_n6.pdf (Accessed: 18 April 2021).

Wetzstein, S. (2017) 'The global urban housing affordability crisis', *Urban Studies*, 54(14), pp. 3159–3177. doi: 10.1177/0042098017711649.

Wright, G. (1983) *Building the Dream* . Cambridge: The MIT Press. Available at: https://mitpress.mit.edu/books/building-dream (Accessed: 25 April 2021).