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Evaluating the Housing Quality and Residential Satisfaction: A Scenario from Marginalized Urban Precinct of Dhaka

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ABSTRACT

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EVALUATING THE HOUSING QUALITY AND RESIDENTIAL SATISFACTION: A SCENARIO FROM MARGINALIZED URBAN PRECINCT OF DHAKA

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Abstract

This paper provides the assessment of the housing quality in marginalized urban precinct of Dhaka, Bangladesh. Studies discovered that a fast spatial development of slums in Dhaka which has been occurring significant fluctuations that were seen in land utilization. The survey was to define which of the circumstances were ranked by the users with the overall satisfaction level about their housing quality and its effect on human well-being. The urban slums are found to give an insufficient indoor-outdoor environmental quality and it is expected to fundamentally enhance the well-being, and health hazards of the slums inhabitants. The data on household characteristics and housing quality have been provided by the 44 households from two notable slums in Dhaka. The qualitative approach lets an enhanced perception of the dwellers' experiences on housing quality. These outcomes will assist to formulate the much desirable policy for affordable housing design according to socio-cultural parameters.

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1. Introduction

It has been evaluated that more than one billion of inhabitants live in the poor housing such as sprawling and squatter settlements in developing nations [1]. The extensive deficiencies of housing and sub-standard residential and social conditions describe most urban slums in the developing countries of Africa, Asia, and Latin America. Researchers show that nearly a billion of people reside in marginalized conditions in inadequate accommodation, insecurity, and an absence of access to sanitation or water in the world [2]. While, many reviews have endorsed the reasons for the housing inadequacies to the fast population growth and urbanization in the developing nations [3].

The developing urban areas and towns in Bangladesh confront encounters that incorporate high rates of individuals living in slums, high living cost, deficiency of amenities and basic utility services (particularly sanitation, water, waste, sanitation, and energy), spontaneous urban growth, political and social clash over

resources, an abnormal state of defenselessness to catastrophic events and poor transportation frameworks. Dhaka, Bangladesh's capital is a rapidly urbanizing megacity in one of the world's populated and poorest nations, [4] where 40% of its population of more than 14 million lived in slum settlements.

The particular targets of this qualitative study were to: carry out the housing quality observing review in destitute families; and to understand about the occupants' residential satisfaction considering the basic two initial human needs. In this study, the limitations are: mostly, head of the families (including female-headed families) were chosen for the interview session, whereas other family members joined the session as well, which is an unwanted result of individual victimization of data.

2. Literature Review

The house has constantly developed globally and habitually on both socio-cultural and physical circumstances. Consequently, each development creates its

own particular forms based on social arrangements and cultural values. Taymurr (1992) and Gur (1994) described culture as a built form in the dynamic, complex, and universal phenomenon, with the variation of time and space [5, 6].

Socio-cultural Phenomenon in Housing

Rapoport (1969) explicitly emphasizes that *“house form is not simply the result of the physical forces or any single casual factor but is the consequences of a whole range of socio-cultural factors seen in broadest terms- the specific characteristics of culture- the accepted way of doing things, the socially unacceptable ways and implicit ideals needed to be considered since they affect housing and settlement form.”* [7] Fundamentally, the dwelling is a substantial mechanism instilled with social and cultural character.

Olanrewaju (2003) have demonstrated that specific intellectual variables, for example, socio-cultural, experience, and financial ability influence the human impression level of their dwelling condition [8]. Similarly, the major variables of housing, for example, residency framework, social position, and family pattern are significant features in cultural and social issues. Besides, other components, for example, social impacts, sex, age, human values influence human perception about their dwelling. Nevertheless, Rapoport (2000) and Lawrence (1987) had confirmed that dwelling patterns and cultural values among others are applicable determinants of housing quality [9, 10]. Considering the previous, Olayiwola, Adeleye, & Jiboye, (2006) confirmed that the socio-cultural characteristics are imperative parameters in the assurance of reasonable dwelling [11].

Indicators for evaluating Housing quality

Foster (2000) presumes that housing is a synthesis of attributes in any neighborhood with a variety of social, intellectual and

financial phenomena [12]. Though housing addresses people's lives and their country; an incredible significance credited to the part in human comfort level by both society and nature. This is the reason Eldredge (1967) presumes as housing expresses the facilitated amenities and improve a decent lifestyle, and neighborhood quality [13].

Moreover, housing act as a multidimensional bundle of amenities and products reaching out the house itself. It is essential to value the importance of an inhabitable (subjective) housing, so, it requires a comprehension of “value or quality” which as indicated by Onion, referred to in Afon (2000), *“is a mental or good trait of a thing which can be utilized while depicting the nature, condition or property of that specific thing.”* [14]

The acceptability of housing should consider, sort of development, space, amenities and utilities, materials, aesthetics and function among indoors and outdoors. Ebong (1983) distinguished the age of a building, basic utility services, aesthetics, access to fundamental amenities, spatial sufficiency, waste disposal, air contamination, as important quality determinants in accommodation [15]. Thus, the dwellings should include the arrangement of infrastructural facilities towards the enhancement of improved livelihood.

The Scottish Housing Standard specifies five essential standards mentioning regarding housing that must be consistence with regulations, free from deterioration, basic amenities, energy efficient and it must be sound, sheltered and secure [16]. The subjective assessment should also consider the type of construction, availability of space, spatial arrangements, amenities, materials between function and dwellings.

In the study, the qualitative assessment will be founded on the evaluation of residential satisfaction about the housing qualities in

terms of the building structure, material, utilities and services, environmental quality etc.

Correlating Maslow's Hierarchy of Needs in the Context of Housing

As indicated by Maslow (1970), fulfilling the essential needs of a man is vital for creating and realizing possibilities and limits of the individual [17]. The hypothesis concentrates on the beginning of human needs by emphasizing a global and unavoidable meaning of these inspirations. Maslow's characterization of needs comprises of five levels of subjective needs, including “*physiological needs, safety needs, needs of affiliation, needs of esteem, and the need for self-actualization.*”

Various researchers reported on houses provision for diverse levels of desires. Miller (2007) and Oliver (2006) propose that housing spaces can be ordered into three stages precisely home, house, and shelter [18, 19]. A home is considerably more than a physical structure than a house, while shelters are given to secure people. The differences are not negligible, or sentimental, but rather essential. As indicated by Oliver (2006), “House” is a signifying idea, where “small dwelling” is depicting the physical arrangement of the building, though “home” is a demonstrative idea [19]. Home is an image of the lives inside it that implies it indicates a social framework and family's relations to the dwelling space it owns.

The dwellings only can accommodate the physiological needs of the occupants. This recommends that residential satisfaction in a house, while depending on the social or economic position, is identified with the user's higher perceptual desires, for example, flexibility, sense of belonging, love and intimacy, aspirations, values and satisfaction. Thus, according to Lowe et al. (2013) it is accordingly essential that mass housing requirements can be incorporated in two vital stages of home making, to be

specific, the design phases of dwelling units, and the prospect manifestation works by the inhabitants [20].

Maslow esteems the initial step of human needs is signified by the very “*basic needs*” “*physiological needs*”, regarded as the fulfillment which gives a person's involvement and existence for a living; the requirement for water, air, food and so forth. Sex is also an imperative behavior of any individual that guarantees the survival and development.

The subsequent stage is characterized by the “safety or security needs”, which contain the necessity of having a shelter, the need of clothing, and so on. The “*needs of affiliation, need of esteem, the need of self-fulfillment*” are the relatively higher steps in the theory, which suggests the person's craving of all qualities one needs to achieve the most extreme level that can be accomplished as it is hard to characterize this point of confinement.

The theory's mechanism depends on progressively fulfilling the elementary human needs. Basically, it is esteemed that any individual begins by receiving and building specific choices and activities which would bring the satisfaction of the *physiological needs* and which address the person's survival itself.

Dhaka as a Study Area

Environmental problems are some of the most noticeable side effects of the difficulties confronting unplanned and slum settlements in Dhaka. Expansive slums, contaminated waterways, waste management are most common in urban slums, wellbeing and improvement perceptions evaluate the circumstances on the personal satisfaction [21]. Though housing quality in marginalized slums is regularly viewed as substandard, the slum inhabitants are regularly compelled to live in environmentally dangerous areas,

contaminated places near open drainage system, waste disposals, and sewers etc.

A solid reason that might be showed for this is the evidence connecting accommodation quality with inhabitants' well-being, personal satisfaction. It is additionally vital to comprehend the comfort determinants for the slum occupants. There is a need to study its significance in the assessment of qualitative housing quality and residential satisfaction in Dhaka, Bangladesh.

With a specific end goal to suit and deal with the mounting weight postured by the expanding populace, it is basic and inevitable that the limit of essential services, for example, water supply, shelter, public transport, waste and sewerage management, electricity, and so forth be extended [22]. It is exceptionally unavoidable and challenging for the government to give the basic urban services to urban poor, and profoundly dense slum advancement become inescapable. The surviving infrastructure with appropriate delivery framework in Dhaka can't manage the basic living prerequisite for the immense population, and the slums turn out to be significantly more marginalized. It is not that the government have not attempted to supply moderate housing, however in very constrained amount, keeping in order to encourage individuals to move out from slums to a better housing environment.

3. Research Methods

The method used in this study was the stratified random sampling. A sample of 44 households was investigated. The study was conducted into two lower-income slums including Korail (under City Ward-19) and Adabor (under City Ward-43). The Korail slum is the largest slum with more than 2,00,000 inhabitants and Adabor slum is another notable slum. The technique used was questionnaire survey which included the quality of life, dwellers' perception, and satisfaction on the housing condition. Another section comprised of open ended

question for the family members above 18 years old.

The data was gathered into focus groups of inhabitants in the qualitative method of study. Throughout the investigation, audio recordings and notes were involved for coding and analysis of the key dwellers, associated by profound perception, able to produce decent quality information. The qualitative findings were validated through triangulation and member checking. Open-ended questionnaire survey involves the dwellers to categorize the satisfaction level for comforting features. The respondents were need to level their perception on satisfaction grounded on 5 "numerical Likert-scale; 1 (Very dissatisfied-VD), 2 (Dissatisfied-D), 3 (Moderately satisfied-MS), 4 (Satisfied-S), and 5 (Very satisfied-VS)."

4. Analysis & Results

Selection of 44 respondents was done in stages and investigation of the data revealed that female respondents (56.82%) were more than male (43.18%) respondents. It has been found that more than half (61.4%) of the respondents having a space of 60-80sqft for their living and the rest 25% and 13.6% of the total respondents living in a space having 'above 80-below 100sqft' and 'above 100sqft' respectively. In most cases, the room occupancy rate is extreme (5-8 person) in a single congested dwelling. Table 1 summarizes the socio-demographic characteristics of the respondents.

Table 1: Socio- Demographic Characteristics of the Respondents

Variables		N=44	%
Gender	Female	25	56.82
	Male	19	43.18
Age	18-24	8	18.2
	25-34	23	52.3
	35-44	12	27.3
	≤ 45	1	2.2
Household Size	60-80 sq.ft	27	61.4
		11	25
		6	13.6

	Above 80- below 100 sq.ft		
	≤ 100 sq.ft		
Length of Stay	2-4 years	26	59.09
	5-7 years	14	31.82
	≤ 8 years	4	9.09
Rooms in household	Single room	38	86.4
	6	13.6	
	Double room		
Room Occupancy	3-4 person	19	43.18
	5-8 person	25	56.82
Monthly Income (BDT)	4000-6000	3	6.82
	6000-8000	9	20.45
	8000-	15	34.1
	10000	17	38.63
	Above 10000		

The usual average number of people in a dwelling is 4-5 and around half of households have more than five individuals. The immense population density and lack of open space make the settlements confined and uncomfortable. The slums are gutted in a very short time because of flammable construction materials during fire hazards. Only 15.6% of their houses is made of brick wall and tin roofing while 84.4% of houses is made of tin both wall and roofing are made of straw, bamboo, and polythene.

Thus, the safety and security are a major concern to have a livable home. Indoor spaces are used for all habitual activities such as dining, cooking, sleeping, studying etc. From the survey the respondents have reported about the sufficient air-flow and light; 53.3% of the respondents have only one window in their dwelling, and surprisingly a large amount of them (35.6%) have no window and a few of them have 2 windows which are very rare. Table 2 is presenting the scenario of basic utility services in those study areas.

Table 2: Basic Utilities as a Physical Element of Housing Quality

Basic Utilities		%
Cooking Space	Indoor Cooking	45.45
	Veranda	34.1
	Open Space	20.45
Toilet Facilities	Common/ Shared	100
Waste Disposal	Dustbins	27.27
	Side Drain	13.63
	Side lake	22.7
	On the Street	36.36
Electric Supply	Legal Connection	13.6
	Illegal Connection	86.4
Water Supply	Common Tube well	52.2
	Common Tap water	36.4
	Other Source	11.4

In the slum areas, most (45.45%) of them have cooking facility inside of their only living space and others utilize the spaces outside (mostly veranda) of their dwelling and open spaces or courtyards, while they face significant problem during the rainy season. The individual toilet facilities in near to absent, the dwellers economically utilize the shared or common toilet, while separate toilet facility is a necessity for hygienic purposes. The current condition is primitive without the proper sanitation system and usually located at the end or a corner of the settlement near to the lake.

The inadequate number of toilets mostly remain without the septic tank or sewerage connection. Inappropriate technology and deficiency of maintenance are key reasons for poor sanitation. The waste disposal is a very basic household service for a dweller and it is a normal scenario to see heaps of garbage and rubbish creating unsanitary conditions. Currently they mostly use the lakeside areas, drains, streets as a waste disposal places, whereas, very few of the dwellers use the provided dustbins. The water and air are highly contaminated due to the filthy waste, sewerage systems. In each household, they have the electric connection but most of them have illegal

connections. Similarly, the wet cores or water sources (water taps, tube wells) are mostly located adjacent of the toilet facilities near the lake.

24 attributes addressing housing quality in the questionnaire formed the basis for this research. 10 most frequently used attributes contributing to comfort from the survey are shown in the following table 3.

Table 3: Frequently used Attributes Contributing to Housing Quality

Factor	Percentage of all responses
Shelter	47%
Warmth, Temperature	42%
Waste disposal	40%
Noise, Sound	36%
Health Distress	31.5%
Polluted air	34%
Sewer	30%
Water Pollution	25%
Open drainage	19%
Peace, silence	16%

The dwellers' personal evaluation of the satisfaction level of housing quality has been evaluated on six influential factors – quality of dwelling, basic services, space, amenities, environment, and common facilities as in Figure 1. It is to highlight that, not a single dweller is fully satisfied with the quality of their living condition. Moreover, the majority of the dwellers are very dissatisfied with the physical environment in those settlements. More than 85% of the dwellers are very dissatisfied with the housing conditions. Followed by, dissatisfied dwellers above 60% with the basic services, space, amenities and common facilities.

Elements	V-D	D	M-S	S	V-S
	%	%	%	%	%
Quality of Dwelling	86.36	6.81	4.81	2	-
Basic Services	65	30.5	3	1	-
Space	63.5	13.5	18.5	4.5	-
Amenities	64.5	10	23.5	2	-
Environment	31	64.5	2	2	-
Common Facilities	63.5	18.5	18	-	-

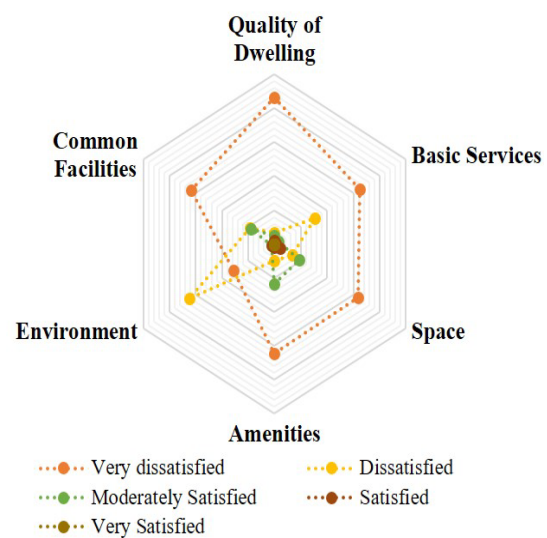


Figure 1: Occupants' Satisfaction Level on Housing Quality

5. Discussion & Conclusion

The household members often suffer from various diseases (for example, diarrhea/dysentery, malaria, jaundice, and respiratory diseases, tuberculosis, skin diseases, and other diseases). All these syndromes are a consequence of substandard environmental conditions unsanitary and unhygienic situation, lack of basic services, environmental and mental deprivation, and precarious health situation.

The slum settlements are adjacent to a large lake that is highly contaminated with sewer water, solid waste and other discarded stuff. The adjacent territories are poorly maintained with narrow lanes, poor sanitation, and highly concentrated land use. The high danger of waterlogging in the

drainage system with the deposition of solid waste makes the environment filthier.

The findings provide significant insights into conveying standard services in slums situated in urban precinct like Dhaka. The study found that the environment of household and its surrounding is directly correlated with the users' satisfaction. To satisfy the need of each person is to the housing and the interest for reasonable livable safe housing with all the provided basic needs is required to be highlighted first in Maslow's hypothesis for the cases of marginalized slums. Obviously, the rest of the needs are the uppermost level of needs. People will find happiness, affiliation, esteem, self-fulfillment eventually only when they can get the basic human needs with a sustainable house; a house of an adequate basic standard that is safe and secured with proper facilities.

The quality of marginalized neighborhood has not been standard to the well-being, social, housing needs, and cultural needs as it affects the quality of life and psychosocial aspects of the occupants. Though the statistics have been drawn from an informal settlement in Dhaka, its outcomes are anticipated to be of broader national and universal application and can endure as a foremost concern for the intervention of stakeholders. This paper will also work as a realization for an improved prospect.

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