

FACTORS RESPONSIBLE FOR THE POOR HOUSING CONDITION: A CASE STUDY OF DADU CITY, PAKISTAN

Ubedullah*¹, Mir Aftab Hussain Talpur*², Fahad Ahmed Shaikh*³, Unzila Abeer*⁴

*^{1,2,3,4}Department Of City And Regional Planning, Mehran University Of Engineering And Technology Jamshoro, Sindh, Pakistan.

ABSTRACT

Housing is a life's necessity. Human being needs a house to shield from the different elements, which may influence quality of life, health of residents and community's efficiency. Thus, providing decent quality housing for public has always been a big challenge for most countries around the world. Variety of steps were taken to achieve this housing sector direction. However, defining the requirements for providing quality housing and determining housing standards has always been a major constraint, particularly with respect to housing quality. Some of the housing parameters are subjective and contextual, such as socio-economic, physical, and management aspects. Hence, this research aims to explore the concept of quality housing and to identify the factors those are responsible for poor housing. The sampled data were gathered through a questionnaire survey. Using 384 questionnaires, those were floated among the residents of Dadu city, Pakistan. SPSS-20 was used to interpret the data and Cronbach's reliability test was also applied. Findings reveal that there are several factors affecting the housing quality that need to be considered for qualitative housing provisions

Keywords: Housing, Factors, Affordability, Residents Perception.

I. INTRODUCTION

Housing is a crucial component of the right to a fair quality of living, and it is one of the most fundamental human rights. Housing that is adequate and low-cost is necessary not only for security and comfort, but also for social stability and national growth [1, 2]. The housing sector contributes significantly to economic growth and stability by creating jobs in construction and materials, as well as increasing demand for financial services. The housing and construction business may absorb a huge number of skilled and unskilled employees, lowering unemployment and, as a result, poverty in the country [3]. Accommodation quality study has gathered greatly responsiveness in urban studies but these have been mostly accompanied for urban locales in developed countries [4]. Due to occurrences of substandard housing may leads to increase urban sprawl each day that results in eradicating cities, worsening the quality of life of the inhabitants and destroying urban fabrics[5]. Series of interconnected factors are the main causes to form substandard settlements. Likewise, lacks in the provision of affordable accommodation for low-income people of urban area, migration (rural to urban), population trends, economic susceptibility, weak supremacy (mostly in policy making, planning and real estate management, that results in the land grabbing) and movement due to environmental conditions [6]. Housing quality can also be justified since it is a social and physical infrastructure whose quality and quantity serve as indicators of living standards, technological advancement, culture, and civilization [7].

Housing is a collection of long-term assets that make up a large share of a country's wealth and on which households spend a significant portion of their income [8]. Housing has been a recurring topic in economic, social, and political arguments for these reasons, frequently with highly charged emotional content [9]. Over the years, the challenges of population explosion, continual flow of people from rural to urban areas, and a lack of basic infrastructure essential for a reasonable level of living have exacerbated housing concerns [9]. Access to this essential need by the poor, who make up the majority of the world's population, has remained a mirage, and it must be addressed urgently [10].

II. METHODOLOGY

Study Area

Dadu City is selected as case study for this research. There are 29 districts in Sindh province, Dadu district is one of them. There are four talukas or Tehsils in district Dadu. The area of Dadu is 19070 square Km. Dadu city

is serving as a head quarter city of Dadu district, so the housing sector of dadu city has taken as a case study for his research as shown in Fig.1

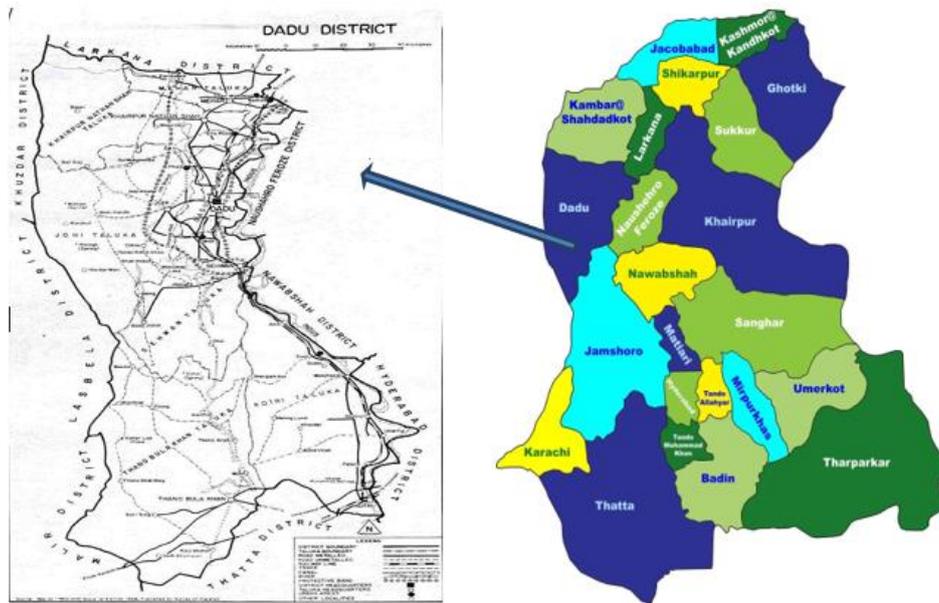


Fig.1: Study Area Map

Data Collection

The study aims to identifying the factors responsible for poor housing condition through resident’s perception. The factors responsible for poor housing condition were recognized through pervious research work (Literature Review). Then, semi-structured interviews were conducted form field experts for further verification of those factors which were gathered form Literature review. Finally, a questionnaire survey was conducted to gather the necessary information. The factors which affect the affordability measures as shown Table I were identified through Literature for validation.

Data Analysis

SPSS-20 (Statistical Package for Social Sciences) was used to interpret the gathered data and Cronbach’s reliability test was also applied. The achieved results can be seen in the practice of graphs and table.

III. RESULTS AND DISCUSSION

The factors responsible for the poor housing quality in the study were identified from the literature review that were explained by different researchers in their research work. Further those were studied by conducting unstructured interviews with various field experts. Those factors are further dived into three phases in the questionnaire form like Physical factors, Socio-economic factors, and Management factors. These factors were ranked using the Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, and 5 = Strongly Agree). The Mean and Standard Deviation values of the data collected from these 384 respondents were calculated and examined. The components were then ordered in descending order of Mean value, with the barrier with the highest Mean value at the top. TABLE II displays the Mean and Standard Deviation for all of the parameters mentioned by the Residents.

Table. I: Factors Identified from Literature

| S.No. | Factors | Empirical Evidence |
|-------|---|--------------------|
| 1. | Poor solid waste management system | [7, 13-15] |
| 2. | Lack in provision of utility services(i.e. Electricity, water supply and gas) | [4, 14, 16-19] |
| 3. | Unnecessary speed breakers at the streets | [14, 18, 20] |
| 4. | Inadequate width of streets | [14, 18, 20] |

| | | |
|-----|--|-------------------------------|
| 5. | Low household income and unemployment | [3, 4, 13, 16, 18, 19, 21-24] |
| 6. | Lack of recreational facilities in the neighborhood | [4, 7, 13, 14, 16, 21, 25] |
| 7. | Dead end streets through encroachment | [14, 18, 20] |
| 8. | Reluctance of SBICA in implementing the housing bye-laws | [17, 26-32] |
| 9. | Encroachment of houses on street | [14, 17, 18, 20] |
| 10. | Lack of coordination between private developers and Government Departments | [17, 33] |
| 11. | Lack of public participation in decision/policy making | [15, 17, 33] |
| 12. | Inappropriate alignment of houses | [15, 34] |
| 13. | Poor land management practices by government land department | [15, 35] |
| 14. | High land Prices | [24, 34, 35] |
| 15. | Improper design of house/Irregular shape of plots | [3, 4, 13-18, 21, 23, 36-39] |
| 16. | Poor financing methods | [15, 34] |
| 17. | High cost of material | [4, 13, 16, 21, 24, 36, 38] |
| 18. | Lack of Suitable land for housing | [24, 35] |
| 19. | Poor orientation of buildings | [4, 15, 18, 25, 35] |
| 20. | Are People willing to adopt changes for the betterment of housing conditions | [15, 24] |
| 21. | Faulty layout of houses | [3, 15, 16, 21, 36, 38, 39] |
| 22. | Substandardised construction material used in house | [4, 13, 16, 21, 36, 38] |

Table I shows the factors identified by other researchers validating that these factors in worldwide context considered responsible for the poor-quality housing. These evidence and characteristics would remain helpful in better understanding of the poor-quality housing.

Table. II: Mean Scores and Standard Deviation of Factors Identified by Residents

| S#N | Factors | N | Mean | Std. Deviation | Rank |
|-----|---|-----|------|----------------|-----------------|
| 1 | Poor solid waste management system | 384 | 4.42 | .944 | 1 st |
| 2 | Lack in provision of utility services(i.e. Electricity, water supply and gas) | 384 | 4.41 | .901 | 2 nd |
| 3 | Unnecessary speed breakers at the streets | 384 | 4.40 | .961 | 3 rd |
| 4 | Inadequate width of streets | 384 | 4.40 | 1.020 | 4 th |
| 5 | Low household income and unemployment | 384 | 4.30 | 1.096 | 5 th |
| 6 | Lack of recreational facilities in the neighborhood | 384 | 4.23 | 1.063 | 6 th |
| 7 | Dead end streets through encroachment | 384 | 4.13 | .972 | 7 th |
| 8 | Reluctance of SBICA in implementing the housing bye-laws | 384 | 4.09 | 1.192 | 8 th |
| 9 | Encroachment of houses on street | 384 | 4.06 | 1.050 | 9 th |

| | | | | | |
|----|--|-----|------|-------|------------------|
| 10 | Lack of coordination between private developers and Government Departments | 384 | 3.96 | 1.280 | 10 th |
| 11 | Lack of public participation in decision/policy making | 384 | 3.95 | 1.146 | 11 th |
| 12 | Inappropriate alignment of houses | 384 | 3.92 | 1.040 | 12 th |
| 13 | Poor land management practices by government land department | 384 | 3.92 | 1.275 | 13 th |
| 14 | High land Prices | 384 | 3.84 | 1.168 | 14 th |
| 15 | Improper design of house/Irregular shape of plots | 384 | 3.66 | 1.278 | 15 th |
| 16 | Poor financing methods | 384 | 3.58 | 1.282 | 16 th |
| 17 | High cost of material | 384 | 3.54 | 1.116 | 17 th |
| 18 | Lack of Suitable land for housing | 384 | 3.47 | 1.310 | 18 th |
| 19 | Poor orientation of buildings | 384 | 3.34 | 1.174 | 19 th |
| 20 | Are People willing to adopt changes for the betterment of housing conditions | 384 | 3.23 | 1.306 | 20 th |
| 21 | Faulty layout of houses | 384 | 3.14 | 1.348 | 21 st |
| 22 | Substandardised construction material used in house | 384 | 3.13 | 1.307 | 22 nd |

Table II shows the mean, standard deviations and the ranks attained by each of the 22 factors however it can be witnessed that the poor solid waste management found as the highest factor responsible for the poor housing quality with mean score of 4.42 and standard deviation .944 whereas sub standardized construction material of houses is the least factor responsible with a mean score 3.13 and the standard deviation 1.307.

The Cronbach's alpha value is used to determine whether the results acquired from the respondents are reliable. For all of the elements that contribute to bad housing conditions, the aggregate alpha value is determined. Table III shows that the Cronbach's alpha value of the obtained data from respondents is 0.707.

Table. III: Reliability Test of Factors Responsible for Poor Housing Condition

| Reliability Statistics | |
|------------------------|------------|
| Cronbach's Alpha | N of Items |
| .707 | 22 |

IV. CONCLUSION

Housing is a multi-faceted and dynamic phenomenon says researcher by concluding the study. As a result, it will be necessary to analyze various parameters in order to develop a model that can be used as a guideline for designing and delivering standard housing, especially individual and family needs, physical, physical, economic, affordable, social, cultural, housing unit or space needs, environmental, community , Place, duration, and structural principles, and occupant psychology, all of which can be used to develop guidelines or requirements for the planning and construction of high-quality housing. The research presented provided a comprehensive overview of the criteria used for the evaluation of housing quality in existing studies. As identified by the different authors in their research work, there are many factors which shows the quality of housing condition. To know the housing conditions, the criteria were grouped into three factors: physical factors, Socio-economic factors, and management factors. Furthermore, these factors are subdivided into 22 parameters, which defined the main causes responsible for poor quality of housing provision. To identify those factors which results in poor condition of housing, a questionnaire survey was conducted from the local residents to know the existing

condition of housing. Top 10 factors from local residents prospection through questionnaire survey as were aimed to achieve for the study resulted in following factors that are Poor solid waste management system, Lack in provision of utility services, Unnecessary speed breakers at the streets, Inadequate width of streets, Low household income and unemployment, Lack of recreational facilities in the neighborhood, Dead end streets through encroachment, Reluctance of SBCA in implementing the housing bye-laws, Encroachment of houses on street and Lack of coordination between private developers and Government Departments. These factors are important in understanding the poor quality of housing and the reasons behind their worst condition however, these factors are also a tool in planning of the residential schemes by setting the quality ingredients as identified.

V. REFERENCES

- [1] B. Headey, *Housing policy in the developed economy: The United Kingdom, Sweden and the United States*: Routledge, 2021.
- [2] T. Y. Ovsiannikova, O. Rabtsevich, and I. Yugova, "Analysis of Housing Investment Market Dynamics Impact on Social and Economic Development," in *IOP Conference Series: Earth and Environmental Science*, 2021, p. 062088.
- [3] A. Jabeen, H. Sheng, and M. Aamir, "Housing crises in Pakistan: Review of population growth and deficiencies in housing laws and policies," *International Journal of Sciences: Basic and Applied Research*, vol. 24, pp. 323-347, 2015.
- [4] I. Haque, M. J. Rana, and P. P. Patel, "Location matters: Unravelling the spatial dimensions of neighbourhood level housing quality in Kolkata, India," *Habitat International*, vol. 99, p. 10.1016, 2020.
- [5] A. El Menshawy and S. Shafik, "Affordable housing as a method for informal settlements sustainable upgrading," *Procedia-Social and Behavioral Sciences*, vol. 223, pp. 126-133, 2016.
- [6] *Un-Habitat, Financing urban shelter: global report on human settlements 2005*: Routledge, 2013.
- [7] W. Morenikeji, E. Umaru, H. Pai, S. Jiya, O. Idowu, and B. Adeleye, "Spatial analysis of housing quality in Nigeria," *International Journal of Sustainable Built Environment*, vol. 6, pp. 309-316, 2017.
- [8] M. C. Hoek-Smit, "Government policies and their implications for housing finance," in *Housing Finance in Emerging Markets*, ed: Springer, 2011, pp. 49-81.
- [9] C. J. W. N. Macoloo, "Mobilizing Assets for self development: From Merry-Go-Rounds to Savings and Credit Organizations," 2009.
- [10] A. J. T. B. Olotuah and H. E. Review, "Housing development and environmental degeneration in Nigeria," vol. 3, pp. 42-48, 2010.
- [11] *U. Nations-Habitat*, 2007.
- [12] M. A. Khan, A. Qayyum, S. A. Sheikh, and O. Siddique, "Financial development and economic growth: The case of Pakistan [with Comments]," *The Pakistan Development Review*, pp. 819-837, 2005.
- [13] A. Esruq-Labin, A. I. Che-Ani, N. Tawil, M. Nawil, and M. O. Mydin, "Criteria for affordable housing performance measurement: a review," in *E3S web of conferences*, 2014, p. 01003.
- [14] N. R. Zainal, G. Kaur, N. A. Ahmad, J. M. J. P.-S. Khalili, and B. Sciences, "Housing conditions and quality of life of the urban poor in Malaysia," vol. 50, pp. 827-838, 2012.
- [15] A. J. O. Hasan, Karachi, "Seven reports on Housing," 1992.
- [16] J. Palacios, P. Eichholtz, N. Kok, and E. J. R. E. E. Aydin, "The impact of housing conditions on health outcomes," 2020.
- [17] A. H. Chohan, A. I. Che-Ani, B. K. Shar, J. Awad, A. Jawaid, and N. M. J. J. o. C. i. D. C. Tawil, "A model of housing quality determinants (HQD) for affordable housing," vol. 20, p. 117, 2015.
- [18] I. Brkanić, "Housing quality assessment criteria," *Electronic Journal of the Faculty of Civil Engineering Osijek-e-GFOS*, vol. 8, pp. 37-47, 2017.
- [19] X. J. I. j. o. e. Bonnefoy and pollution, "Inadequate housing and health: an overview," vol. 30, pp. 411-429, 2007.

- [20] W. Morenikeji, E. Umaru, H. Pai, S. Jiya, O. Idowu, and B. J. I. J. o. S. B. E. Adeleye, "Spatial analysis of housing quality in Nigeria," vol. 6, pp. 309-316, 2017.
- [21] A. Ali, A. Rasheed, F. Imtiaz, M. Hussain, and M. J. I. J. E. H. S. R. Arsalan, "Knowledge of Nursing Students Regarding Housing Characteristics and Its Evaluation," vol. 5, pp. 37-47, 2017.
- [22] Q. M. Ashique-Uz-Zaman, "ADAPTATION OF THE ECO-CITY CONCEPT FOR CITIES IN DEVELOPING COUNTRIES," National University of Singapore, 2012.
- [23] I. J. E. J. o. t. F. o. C. E. O.-e.-G. Brkanić, "Housing quality assessment criteria," vol. 8, pp. 37-47, 2017.
- [24] A. J. S. P. Begum and Administration, "Urban housing as an issue of redistribution through planning? The case of Dhaka city," vol. 41, pp. 410-418, 2007.
- [25] L. L. Huong, T. A. Dung, and D. H. Quyen, "Building up a System of Indicators to Measure Social Housing Quality in Vietnam," 2016.
- [26] R. Burridge, D. J. J. S. Ormandy, and S. Welfare, "The Role of Regulation in the Control of Housing Conditions," vol. 17, p. 127, 1990.
- [27] F. M. Meijer, H. J. Visscher, L. J. H. Sheridan, Urban, and P. S. 23, "Building regulations in Europe Part I: A comparison of the systems of building control in eight European countries," 2002.
- [28] J. Morphet and B. P. Clifford, Local authority direct provision of housing: UCL, 2017.
- [29] L. Telfar-Barnard, J. Bennett, P. Howden-Chapman, D. E. Jacobs, D. Ormandy, M. Cutler-Welsh, et al., "Measuring the effect of housing quality interventions: the case of the New Zealand "rental warrant of fitness"," vol. 14, p. 1352, 2017.
- [30] A. Hasan and H. Arif, "Pakistan: the causes and repercussions of the housing crisis," 2018.
- [31] A. J. E. Hasan and urbanization, "Land contestation in Karachi and the impact on housing and urban development," vol. 27, pp. 217-230, 2015.
- [32] A. Hasan, N. Ahmed, M. Raza, A. Sadiq, S. Ahmed, and M. B. Sarwar, Land ownership, control and contestation in Karachi and implications for low-income housing: Human Settlements Group, International Institute for Environment and Development, 2013.
- [33] M. E. R. Watts, K. Swan, D. P. Fox, M. Upfold, M. S. J. Partner, and S. Housing, "Public private partnerships," 2000.
- [34] P. J. I. j. o. u. Jenkins and r. research, "Strengthening access to land for housing for the poor in Maputo, Mozambique," vol. 25, pp. 629-648, 2001.
- [35] S. J. E. Boonyabancha and Urbanization, "Land for housing the poor—by the poor: experiences from the Baan Mankong nationwide slum upgrading programme in Thailand," vol. 21, pp. 309-329, 2009.
- [36] H. N. Husin, A. H. Nawawi, F. Ismail, and N. Khalil, "Analysis on Occupants' Satisfaction for Safety Performance Assessment in Low Cost Housing," in E3S Web of Conferences, 2014, p. 01004.
- [37] A. H. Chohan, A. Irfan, and J. J. O. H. I. Awad, "Development of quality indicators of housing design (QIHD), an approach to improve design quality of affordable housing," 2015.
- [38] A. H. Chohan, A. I. Che-Ani, B. K. Shar, J. Awad, A. Jawaaid, and N. M. Tawil, "A model of housing quality determinants (HQD) for affordable housing," Journal of Construction in Developing Countries, vol. 20, p. 117, 2015.
- [39] L. H. Le, A. D. Ta, and H. Q. J. P. e. Dang, "Building up a system of indicators to measure social housing quality in Vietnam," vol. 142, pp. 116-123, 2016.