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# Low Cost housing and human behaviour towards low cost housing

*Dr.Pinal Barot \**

Low-Cost Housing is a new concept which deals with effective budgeting and following of techniques which help in reducing the cost of construction through the use of locally available materials along with improved skills and technology without sacrificing the strength, performance and life of the structure. There is huge misconception that low-cost housing is suitable for only sub-standard works and they are constructed by utilizing cheap building materials of low quality. The fact is that Low-cost housing is done by proper management of resources. Economy is also achieved by postponing finishing works or implementing them in phases.

## **1. Introduction**

LOW-COST HOUSING as a concept is very generic and could have different meanings for different people based on differences in income levels. *Affordable housing refers to any housing that meets some form of affordability criterion.* Different countries have defined affordable housing to present the economic potential of an individual buying a house. In the United States and Canada, a commonly accepted guideline for affordable housing is that the cost of housing should not be more than 30 percent of a household's gross vary with regions and income levels. Another point to note is that the definition of affordable housing is not just restricted to the three categories mentioned above, but applies to people across the country. Affordable housing can be defined using three key parameters viz. income level, size of dwelling unit and affordability. While the first two parameters are independent of each other, the third parameter is correlated income. Housing costs here include taxes and insurance for owners, and utility costs. If the monthly carrying costs of a home exceed 30–35 percent of household income, the housing is considered unaffordable for that household. Defining affordable housing in India is a difficult task given that at every square kilometre of the country, the dynamics of the market are different.

The rising demands on affordable housing in INDIA and the increasing interest of developers to invest in affordable housing

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projects mandates a clearer understanding and appreciation of the lifestyles and cultural values of the local society. Dealing with affordable housing as products or commodities only results in less than appealing and depressing environments that do not meet basic needs or satisfy the preferences of potential users.

The economic crisis shadowing India is leading to rise of interest rate and credit unavailability. The real estate developers in such circumstances are having difficulties to find buyers for premium apartment. This has inspired as well as impelled developers towards cost effective housing.

This paper studies cost effective and eco-friendly construction using pre-engineered building for affordable housing project of Amuthasurabhi, Self Help Group Federation for rural women, at Avuai Agam (VKNARDEP). This study encompasses the salient features of these cost-effective technologies. The materials and the technology utilized are analysed in this paper. Some of these include: Aesthetically pleasing and environmentally friendly Ferrocement doors, Ferro-cement roofing channel, Pr-engineered Ferrocement Toilets, Different types of filler Slabs. The objective of the paper is to study the feasibility of using this model for affordable and eco-friendly housing projects.

## **2. Low Cost Housing**

Low Cost Housing is a new concept which deals with effective budgeting and following of techniques which help in reducing the cost construction through the use of locally available materials along with improved skills and technology without sacrificing the strength, performance and life of the structure. There is huge misconception that low cost housing is suitable for only sub standard works and they are constructed by utilizing cheap building materials of low quality .The fact is that Low cost housing is done by proper management of resources. Economy is also achieved by postponing finishing works or implementing them in phases. [7]

The term Low-cost housing might mean different things to different people. For instance, in a developed country, USA, housing can be considered affordable for a low or moderate-income earner if that household can acquire use of that housing unit (owned or rented) for an amount up to 30 percent of its household income [Miles et al, 2000]. Mortgage lenders also use this standard as one important criterion in qualifying buyers of market-rate housing for mortgage loans. In developing countries, only up to 20% of the population who in actual fact constitute the higher income earners would be able to

afford such housing units. The low-income group in developing countries are generally unable to access the housing market through the mortgage institutions. Housing requirements for this group are both urban and rural based. In 1991, statistics indicated that about 70% of Nigerians fall in this category. This situation has not changed.

The rising demands on affordable housing and the increasing interest of developers to invest in affordable housing projects mandates a clearer understanding and appreciation of the lifestyles and cultural values of the local society. Dealing with affordable housing as products or commodities only results in less than appealing and depressing environments that do not meet basic needs or satisfy the preferences of potential users.[4]

To many architects, engineers, and developers, the terms —affordable housing‡, —design‡, and —the preferences and lifestyles of the targeted populations‡ are exclusive and are looked at in isolation. Once the goal of providing quality design and once the goal of understanding people preferences and their lifestyles enter the discussion, it is generally assumed that the cost will automatically increase. When production techniques are developed to provide genuinely affordable housing, effort is often focused on cost reduction only while preferences and lifestyle aspects are overlooked. Theorists like Alexander, and Burnham argue that it has proven difficult to strike a harmonious balance.

### **Defining Affordable Housing**

The concept of housing affordability has been widely used for the past 15 years or so (Robinson, Scobie and Hallinan, 2006), but defining it accurately is challenging. Housing affordability could simply be defined as shelter that is cost-effective, meaning that a household can “pay without incurring financial difficulties” (Robinson et al., 2006, p. 1). The root definition of housing affordability is the income capability to cover the cost of purchasing a house (Wilcox, 2003; Stone, 2006; Burke, 2007; Wilcox 2007; Wan *et al.*, 2010; Hashim, 2010).

Internationally, housing affordability is defined in multiple ways. One of the most helpful definitions of housing affordability was offered by MacLennan and Williams (1990, p.9) as being “concerned with securing some given standard of housing (or different standard) at a price or a rent which does not impose, in the eye of some third party (usually the government) an unreasonable burden on household incomes.” Bramley (1990, p.16) further

specified that “households should be able to occupy housing that meets well established (social housing) norms of adequacy (given household type and size) at a net rent which leaves them enough income to live on without falling below some poverty standard.” Freeman, et al (1997, p.2) asserted that housing affordability concentrates on the relationship between housing expenditure and household income and defines a (relative or absolute) standard in terms of that income above which housing is regarded as unaffordable. Affordability considers not just housing but also what quality of housing is consumed and whether the household has enough income remaining for other necessities of life after offsetting the cost of housing. As cited in DTZ New Zealand (2004), the Australian Government’s National Housing Strategy (ANHS) defines affordability as “the notion of reasonable housing costs in relation to income: that is, housing costs that leave households with sufficient income to meet other basic needs such as food, clothing, transport, medical care and education” (Berry and Hall, 2001, p.10). Affordable housing is generally considered to be houses which meet the needs of households whose incomes are not sufficient to allow them to access appropriate housing in the market. Decent housing has been universally accepted as one of the basic needs of individuals, the family and the environment (Adeboyejo, 2005). In United States and Canada, a common accepted criterion for affordable housing is that the cost of housing should not be more than 30 percent of a household’s gross income. Housing costs include taxes and insurance for owners, and utility costs (cited in Vibrant Gujarat, 2017).

One of the most commonly accepted definitions of affordability refers to housing affordability which is taken as a measure of expenditure on housing to income of the household. This is also accepted by the Indian Government, which states “Affordable housing refers to any housing that meets some form of affordability criterion, which could be income level of the family, size of the dwelling unit or affordability in terms of EMI size or ratio of house price to annual income” (High Level Task Force on Affordable Housing for All, 2008). Housing affordability problem affects vulnerable groups. Vulnerable groups are commonly perceived as low income households (Gan and Hill 2009). Davidson (2009) argued that affordable housing can be many things such as a fundamental right, a critical source of shelter and a contested locus of community. Most commonly, affordable housing is associated with low income households who are not able to enter the homeownership

market without any state assistance due to the definition of it is a critical source of shelter (Agus, 2002; Byrne and Diamond, 2007; O'Mahony, 2009; Norazmawati; 2012).

#### **Demand For Affordable Housing In India**

Affordable housing is quickly taking a center stage internationally, within the national agenda in Republic of India. Various factors are responsible for the demand of affordable house in India, such as, the progressive urbanization, going hand in hand with a growing urban population, which increased from 109 million in 1971 to 377 million in 2011, and is projected to grow to 600 million by 2030. The consequence of the growing concentration of people in urban spaces is felt in land and housing shortages and congested transit, besides the stress on basic amenities such as water, power, and sanitation. The Ministry of Housing estimated a housing shortage of 18.78 million houses during the 12th plan period, with 99 percent in the economically weaker and lower income groups. Again, Ministry of Housing and Urban Poverty Alleviation, 2012, the Government of India reported there was a shortage of about 19 million homes in urban India, 56 percent of which are from Economically Weaker Section (EWS) households with monthly income less than Rs.25,000.

The Technical Group on Urban Housing Shortage for the Twelfth Five Year Plan (2012 – 17) defines housing shortage as comprised of the following components:

1. Excess of households over the acceptable housing stock (people living in informal properties)
2. Number of extra households needed due to congestion
3. Number of extra households needed due to obsolescence
4. Number of kutcha households that must be upgraded

The above classification is need based perspective of housing shortage alone and ignores the housing requirements from the demand. By this definition, the total need based housing shortage in the country is around 19 million units as per census 2011 (cited in Sarkar, et.al. 2016).

A thrust on affordable housing will not only lead to better quality of life, but also significantly provide a boost to the GDP of the country (Gopalan and Venkataraman, 2015). Housing is the largest component of the financial as well as the construction sector (High Level Task Force on Affordable Housing for All, 2008). Thus, housing deserves significant attention in the context of developing policies and strategies for human development.

**Need For Cost-Effective Low-Income Housing**

Owning an asset, such as, a house protects the poor from the vicissitudes of life. It is one of the basic needs for most poor households and is important to ensure safety and health. For poor people who work out of their homes, such as micro-entrepreneurs, home improvement may have positive implications for income generation. As such, low-income housing is an area of interest for NGOs and financial institutions that serve the poor since not only is this an important need for the well-being of poor people, it is also something for which there is a clear willingness to pay for secure housing or land title.

In India, the right to housing and adequate shelter is guaranteed in the Directive Principles of State Policy. Consequently, both central and state governments have an obligation to keep this provision in mind while formulating laws and policies. Until recently, the government had the tendency to view housing as a social problem, rather than as a developmental activity which could have tremendous trickle down effects for the economy. Yet, research shows there is possibility for much lucrative activity, as the consumer demand for housing is very high in the low income housing segment. India's housing shortage is estimated to be as high as 40 million units and demand from the low income segment constitutes a large proportion of this shortage. Other studies indicate that more than 200 million people are living in acutely poor housing conditions or on the streets. Such high demand heralds customized designs of housing finance products and supply mechanisms targeting low-income groups which have traditionally been excluded from the housing market due to land tenure and high investment requirements.

In the recent past, several institutional efforts have been made to improve access to loan financing for these low-income households. In particular, shelter finance and community finance mechanisms have expanded considerably in the recent decades<sup>3</sup>. Notable examples of housing microfinance include the Self-Employed Women's Association (SEWA) Bank's efforts in Gujarat and the National Slum Dwellers Federation in Mumbai amongst others. These micro finance initiatives, typically comprised of small loans for housing improvements, are bolstered through close relationships with the community to encourage savings and discourage default. This is compatible with the pattern of low-income home building in which there are gradual improvements over time as the poor avail themselves of more opportunities to access finance

through family, friends, local money lenders, and, in some cases, credit unions. Anyone who lives in urban India can attest to this reality. Slums and shantytowns typically have one room in which the entire household eats, sleeps and does everything in between. A typical 400-sq.-ft. home would contain a family of four, in-laws, and visiting cousins from the village who would sleep under the bed. **"It is a global paradox,". "The smaller the unit, the more people live in it. The larger the house, the fewer people it contains."**[8]

#### **Human behaviour towards low cost housing:**

##### **Buying decision process**

##### **Introduction:**

In easier terms, marketers could understand consumers well through the daily experience of selling to them. But as firms and markets have grown in size, many marketing decision-makers have lost direct contact with their consumers. Most marketers have to turn to customer research. They are spending more money than ever to study consumers, trying to learn more about consumer behavior. Who buys? How do they buy? Where do they buy? When do they buy? Why do they buy?

##### **Decision making as problem solving:**

Consumers are complex and constantly changing. Not only is it difficult to what marketing program will work, but also what worked yesterday may not work today. Thus marketers must constantly improve their understanding of the consumers. The consumer buying decision process has six stages –

- Need recognition
- Choice of involvement level
- Identification of alternatives
- Evaluation of alternatives
- Purchase and relative decisions
- Post purchase behavior

The four primary forces that influence each stage are-

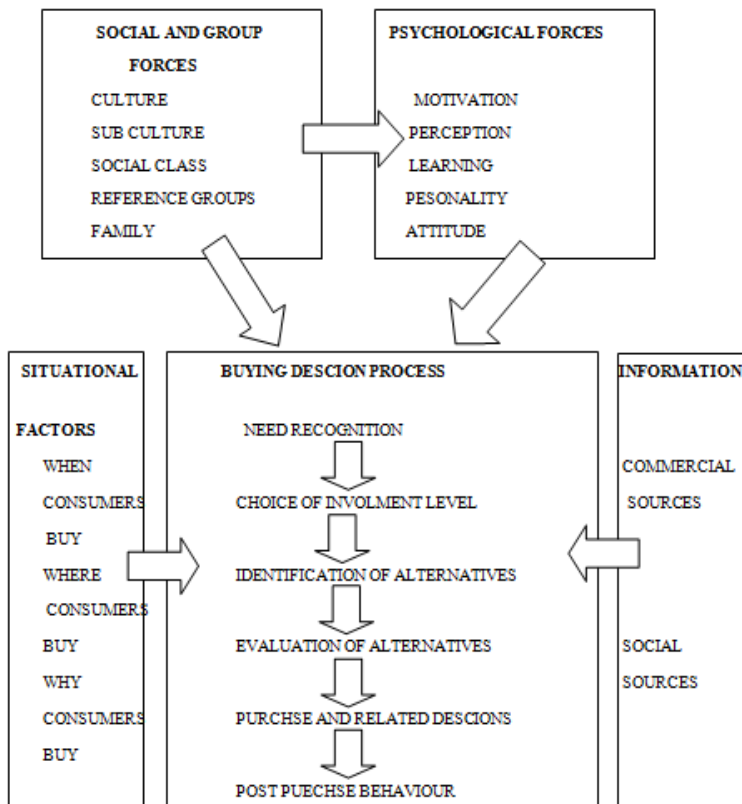
1. Social and group forces
2. Psychological forces
3. Information
4. Situational factors

##### **Recognition of an unsatisfied need:**

Everyone has unsatisfied need and wants that create tension or discomfort. Acquiring and consuming goods and services need can satisfy some. Thus, the process of deciding what to buy begins when a need that can be satisfied through consumption becomes strong



enough to motivate a person. This need recognition may arise internally, or the need may be dormant until it is aroused by an external stimulus such as an ad or the site sight of the product. The decision can also be triggered by the depiction of an existing product or dissatisfaction with a product currently being used.



**Choice of an involvement level:**

After recognizing the need, the consumer consciously or unconsciously decides how much effort to exert in satisfying it. Sometimes when a need arises a consumer is dissatisfied with the quantity or quality of information about the purchase situation and decides to actively collect and evaluate more. These are high involvement purchases that entail all six stages of the buying decision process. If on the other hand a consumer is comfortable with the information and alternatives readily available, the purchase situation is low involvement. In such cases the buyer will likely skip directly from need recognition to a decision, ignoring the stages in between.

Some differences in consumer behavior in high and low involvement situations are:

<b>Behavior</b>	<b>High involvement</b>	<b>Low involvement</b>
Time invested	Large involvement	Small amount
Information search	Active	Little or none
Response to information	Critically evaluate	Ignore or accept without evaluation
Brand evaluations	Clear and distinct	Vague and general
Likelihood of brand loyalty developing	Strong	Weak

Though it is risky to generalize since consumers are different, involvement tends to be greater under any of the following conditions:

- The consumer lacks information about alternatives for satisfying the need.
- A large amount of money is involved.
- The product has considerable social importance.
- The product is seen as having a potential for providing significant benefits.

Since they rarely meet any of these conditions, most buying decisions for relatively low priced products that have close substitutes would be low involvement. Hence involvement must be viewed from the perspective of the consumer, not the product.

Impulse buying, or purchasing with little or no advantage planning, is a form of low involvement decision making. For this greater emphasis has to be given on promotional programs such as reduced prices on selected items to get shoppers into a store. Also, displays and packages have to be made appealing, since they serve as silent sales people.

#### **Conclusion :**

From the above study we have come to the following conclusions:

- 1) Affordable housing depends upon the income generated by an individual or a household.
- 2) Meaning of affordable housing varies from individual to individual and on the segment (group) he belongs to. For example, affordable housing for low-income group personnel will be different than a person belonging to medium income group.
- 3) Affordable housing is dependent upon the requirement of the individual and his household and his ability for affording it.

- 4) Household community driven approach to construction of new dwellings is cost effective and would require fewer subsidies
- 7) Attitude of the people towards buying a house totally depends upon the income generated in their household
- 8) Most of the families wanted to live in a flat with amenities according to the need of the people.
- 9) Most of the people rely on their relatives and friends for decision of buying a house. There was not even a single respondent who wanted to consult a firm for doing so.

**Reference:**

1. A.M. Salama, —A life style theories approach for affordable housing research in Saudi Arabia: COLLEGE OF ENVIRONMENTAL DESIGN, King Fahd university of petroleum and minerals-KFUPM, Dhahran, kingdom of Saudi Arabia. email: asalama@gmail.com.  
<[http://www.engg.uaeu.ac.ae/ejer/issues/v11/pdf\\_iss1\\_11/p7\\_a\\_1\\_life\\_style\\_theories.pdf](http://www.engg.uaeu.ac.ae/ejer/issues/v11/pdf_iss1_11/p7_a_1_life_style_theories.pdf) >  
(4 August 2011)
2. Michael P .Johnson, H. John Heinz iii, —Decision models for affordable housing and sustainable community developmentl, School Of Public policy And Management Carnegie Mellon university 5000 Forbes Ave. Pittsburgh, pa 15213-3890 johnson2@andrew.cmu.edu  
< <http://www.heinz.cmu.edu/research/297full.pdf> > (11 September 2011)
3. A report on low income housing in India: challenges and opportunities for microfinance for habitat for humanity Indial. Centre for micro finance at the Institute for Financial Management and Research (IFMR), Chennai, June 2007.  
<[http://www.habitat.org/housing\\_finance/pdf/low\\_income\\_housing\\_in\\_india.pdf](http://www.habitat.org/housing_finance/pdf/low_income_housing_in_india.pdf) >  
(3 October 2011)
4. Affordable housing: a key growth driver in the real estate sector?l. KPMG India.  
<<http://workshop.mod.org.in/wp-content/uploads/2010/07/KPMG-in-India-Affordable-Housing.pdf> > (24 October 2011)
5. Raju Sarkar- —Post earthquake housing construction using low cost building materialsl, October 12 2006.<<http://conf.ncrec.org.tw/proceedings/i0951012/data/pdf%5C4ICEE-0275.pdf>> (2 November 2011)

6. Affordable housing for masses, The Financial Times, Sunday, July 20, 2008  
<<http://www.financialexpress.com/news/affordable-housing-for-the-masses/337790/>> (23 December 2011)
7. Reinforced Brick Panel System  
<<http://www.bmtpc.org/compendium/flooring/reinforced%20brick%20panel%20roofing%20system.htm>> (11 December 2011)
8. Property Plus Thiruvananthapuram, The Hindu, October 1 2005  
<<http://www.hindu.com/pp/2005/10/01/stories/2005100101460200.htm>> (12 December 2011)
9. Specifications for soil based blocks used in general building construction, IS 1725 1982(reaffirmed 1997)
10. Prefabricated brick panel and partially pre -cast concrete joist for flooring and roofing – specification, IS 14143, 1994.

\*\*\*