

RESIDENTIAL USER SATISFACTION OF REAL ESTATE HOUSING IN GHANA

Joseph Agyei Danquah¹ and Prof. Samuel O. Afram²

¹ RESEARCH SCIENTIST, CSIR- BUILDING AND ROAD RESEARCH INSTITUTE, KUMASI, GHANA

² LECTURER, KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, GHANA

ABSTRACT: *Housing is considered as the largest consumption and investment item of a person's lifetime and as result housing satisfaction is a key component of their quality. Like all cities developing countries Accra is faced with a huge lack of adequate shelter for her people. This has brought in its trail the upsurge of real estate development in Accra with lack of effective controls in addressing the needs of the occupants. This has potentially resulted in several complains of substandard housing, poor planning and construction and poor management services. The objective of the research was to examine the determinants of residential satisfaction and to investigate the level of satisfaction/dissatisfaction of the residents in these gated communities in terms of the building features, the neighbourhood and the management practices. Qualitative and quantitative methods were used in the gathering and analysis of data from two selected locations in Accra. Structured questionnaire was used to gather the data from the residents, with the 5-point Likert scale of measurement. Stratified random sampling was used to select sample for the estates and questionnaire. Again a Habitability Index formula was used in assessing the satisfaction of residents. The study revealed that respondent's satisfaction levels were generally high, with varied dissatisfaction levels in; water supply, neighbourhood facilities, sanitation and security. It thus recommends amongst others that: the built environment professionals should collaborate with the metropolitan authorities in exerting strict but adaptable control measures in meeting occupants needs, and regular satisfaction surveys should be carried out by Real Estate Developers and the Government to get occupants' feedback in enhancing future developments.*

KEYWORDS: Housing, Residential Satisfaction, Gated Communities, Real Estate

INTRODUCTION

Housing has always been and continues to be a key factor in spearheading and accelerating economic growth in most countries. This becomes inseparable in cities in developing countries, where rapid urbanization of the country requires adequate shelter for its dwellers. Ghana as a lower middle country is faced with a huge housing deficit for its citizens. Lack of a housing policy and political will inexpediencies amongst others, has led to the widening of the housing deficit which now stands at 5.2 million room units Tipple (2012). Tipple further indicates that there have been three national housing policies all in a draft form: the 1986 National Housing Policy; the 1992 National Shelter Strategy and review of same in 1999 with the support of the UN-HABITAT but the paths to their implementation have not been smooth.

One of the key players in the provision of housing in urban centres has been the Ghana Real Estate Development Association (GREDA) which was established in the mid 1980's under the Ghana Investment Promotion Centre. Their mandate was to take the center stage in the construction of affordable houses with the focus on the housing demand of the low income.

To make it more attractive the government introduced tax incentives such as: the five-year tax moratorium, import duty exemptions and ability to transfer funds overseas (Tippie 2012). This effort has not yielded the needed impact especially on the target group as they had failed to meet the housing needs of the poor, instead building for the middle income and the high income due to the very high demand and ready market for these.

Accra as the capital city of Ghana is faced with the lack of shelter and adequate shelter for its growing population. Recent studies has named Accra as a “superstar city”- One in which a high demand for housing is not met by supply and housing remains in short supply and expensive (Buckley et al, 2007).

This has resulted in the surge of new actors emerging under the Ghana Real Estate Development Association claiming to provide adequate shelter for the people but their sole aim is to make profit. Accra alone has over 80% GREDA members now in operation. This has resulted in the provision of substandard housing and neighbourhoods within the city, but because of their product are a “scarce commodity” very little is known about their real performance in meeting occupant’s needs.

Research has shown that many of these companies take advantage of the many incentive packages to set up, make their sales, reap the profit and then fold up just at the expiry of these incentive packages (Tippie 2010). Developers are now going into micro scale urban planning called gated communities with some housing over 40,000 people. This is compounded by the fact that there is the lack of a proper regulatory framework regarding their operations and especially ensuring that the interest of the user or homeowner is protected.

This is a worrying trend which if not regulated would pose a huge physical planning and policy implications to the fragile economy. As owning a house is everybody’s dream, this dream turns into nightmares after the homes they have bought are left uncompleted, and those completed have problems ranging from irritating ones like roof leakages and uneven flooring to more serious ones like substandard house quality and unpleasant neighborhoods (Tek Hong Tan 2012).

The main aim of the study was to evaluate the satisfaction/dissatisfaction levels of the residents in their houses, the neighbourhood and the management of these estates. Data on Real Estates are scanty and difficult to get as management see it as confidential. Further, accessibility to most private Real Estates, which are gated, proved very difficult, as privacy and security are considered prime from estate managers. This limited the study focus, and coupled with costs, the sample population had to be reduced.

Thus, the scope of the study was limited to the Greater Accra region of Ghana which has over 80% of GREDA members operating. Five estates were picked according to their location and availability all on condition of anonymity where the case study approach was adopted, with stratified random sampling used for the data collection.

Although extensive research has been done on residential satisfaction in various countries especially in Europe, America’s and Asia there exists few from Africa. Ukoha and Beamish in 1997 did a research in Residents’ Satisfaction focusing on government public housing in Abuja, Nigeria. Currently there is an information gap in the built professionals (architects and planners) as to what constitute the specific housing needs of the urban resident in Ghana due to the fact that literature on this topic is virtually absent. This is problematic since it gives leeway for all manner of designs and construction of Real Estates which fall short of the

occupants needs. Thus this study sought to investigate occupants' preferences through the facilities available in existing real estates.

LITERATURE REVIEW

Urban Housing Provision in Ghana

According to the United Nations (UN 2009) 50.5% of the world's population live in cities implying that, the urbanized residential environment has become the main habitat for people worldwide. This situation has made the evaluation of urban neighbourhoods an increasingly important issue for both residents and policy makers (Sam et al, 2012)

Urbanization is occurring faster in developing countries and Sub Saharan Africa is widely believed to be among the fastest growing when compared to Asia and Latin America. In Ghana, urbanization is projected to reach 65% by the year 2020. The 2010 Population and Housing Census put the urban population at 51%. Greater Accra region has the highest urban population at 90% of its four million people (GSS, 2010).

Urbanization, which must bear the marks of civilization, is rather characterized by poverty, poor sanitation, disease, homelessness, crime, etc in many developing countries instead of economic and social progress (UN Habitat 2005). The UN has enumerated these- housing production, access, affordability, and maintaining existing stock in habitable condition, as some of the most intractable problems facing many cities of the world. In spite of national and international efforts aimed at developing appropriate shelter policies and strategies, no effective remedy has been found to cure housing ills (UNCHS, 1995, 1996).

In Ghana, lack of a national housing policy, political will and inexpediencies amongst others have led to the widening of the housing deficit, which now stands at 5.2 million room units Tipple (2012). As a result of the production deficiencies, overcrowding, difficulties in ending rental accommodation, and huge rent advances that add up to several months' income of prospective tenants, now characterize the housing market in the nation's capital. This situation has presented many opportunities for private developers to prescribe all kinds of shelter solutions to those in need.

Real Estate Housing in Ghana

The real estate market in Ghana has opened up considerably over recent years since its formation as the Ghana Real Estate Developers Association (GREDA). GREDA is the umbrella association of the real estate developers from the private sector, and almost exclusively operate in the capital city and lately in Sekondi Takoradi and Kumasi. It was established under the company code, Act 179, of 1963 as a private company limited by guarantee. Their main objectives amongst others were:

To provide a united front in making recommendations to government on ways to promote the real estate development and seek solutions to the practical problems in the property market

To promote the development of residential estates and to increase the stock of housing units thereby ensuring adequate provision of affordable housing for all classes of the population, and

In the spirit of the search for appropriate technology, the association shall promote the use of local inputs and finance research into the suitability of local building materials in the country. (www.gredaghana.org). There has been an increasing policy interest in the role of the sector in

supporting the achievement of economic regeneration, poverty alleviation, modernization and the decent housing agenda for the country. To a certain extent, as Karley and Akomeah (2007) put it, the recent growth can be interpreted as the emergence of economic regeneration. Studies into real estate in Ghana have focused on the residential sector because of the precarious housing needs and its concomitant problems (Karley, N.K and Akomeah, S.Y, 2007)

The real estate market, which came into existence in the mid 1980's during the structural adjustment of the country, has risen tremendously to play a major role in the economic regeneration of the nation especially in the Greater Accra region. GREDA's current membership stands at over four hundred from a mere 40 at its inception (Tipple, 2012). Their contribution to annual housing output has been increasing steadily since the year 2004, with their market turnover for the Ghanaian economy in several millions of dollars. The early 2000's saw the shifting of focus in the housing provision from the lower middle income to the upper middle and higher income dwellers due to the ever-increasing demand for these types of housing popularly called Gated Communities. A cursory survey of building scape of the Greater Accra region will indicate that about 80% of real estate housing falls into this category.



Figure 1: A street view of a Real Estate in Accra

Source: Author, Field Survey

Gated communities as explained by Berkosz (2009), Roitman (2003) and Landman (2000) are: "Residential areas for upper-class families who look for security, comfort, a better life quality and social homogeneity. They consist of neighbourhoods closed by walls, barriers, fences and gates (Roitman, 2003). The concept includes residential areas with restricted access and defines a self-sufficient environment with swimming pools, private bars, children's play areas and a full accompaniment of care-taking staff and security forces (Landman, 2000)"

Residential Satisfaction

Research on housing has gone beyond the study of the physical, structural and functional features of one's territorial core called 'house' (Hayward, 1977; Lawrence, 1987). Over the years, there has been keen interest in knowing peoples responses to their housing environment and the effect on their lives, hence measuring housing quality has become an

important tool (Mohit et al, 2010). Local governments in both UK and USA conduct regular tenant satisfaction surveys to ensure that households are satisfied with the provided housing and its services (Varady & Carrozza, 2000).

Residential Satisfaction is defined as the feeling of contentment when one has or achieves what one needs or desires in a house (Mohit et al, 2010) and its surroundings. The term, residential satisfaction, has been used in different fields of study and professions, however in recent times the built environment has seen a growing interest into the research of residential/housing satisfaction. Amerigo and Arogones (1997) in a study “*A Theoretical and Methodological Approach to Study of Residential Satisfaction*” state that residential satisfaction is an important criterion in the descriptions of the quality of the inhabitants of a determinate residential environment and a trigger factor affecting residential mobility. For most individuals, housing is considered as the largest consumption and investment item of their lifetime and as a result housing satisfaction is a key component of their quality (Vera-Tescano & Ateca-Amestoy, 2008). The houses and communities we dwell and live have underpinning complexities which shape our behavior and experience. Fried (2000) in his publication on *Residential Attachment* asserts that differences in the localization of security, pleasure and use of the community as well as alienation from strange territories immediately outside the neighborhood indicates social class variations in geographic orientations.

Conceptual Models

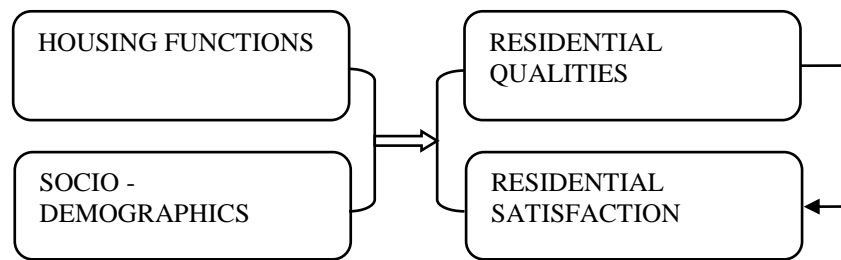
Evidence from literature shows that residential satisfaction is influenced by a broad array of objective and subjectively perceived conditions (Theodori, 2001). Onibokun (1974) further states that habitability of a house is not only influenced by the engineering elements, but also by social, behavioural, cultural, and other elements in the entire societal-environmental system. Over the years, a number of authors have used some form of comparison to model satisfaction. Amongst them were the four popular theories namely: contrast theory; behavioural theory; discrepancy theory; and equity theory. Over the years these theories have been harmonised into various conceptual models and adapted by many researchers in the determination of customer satisfaction (Hackl & Westlund, 2000; cited in Mastura et al, undated). Models, according to Francescato et al (1989, cited in Dassah 2011), are potentially useful for developing explanatory theories in three ways. Namely:

- They permit results of a study to be interpreted by giving clear indications of the theoretical orientations underpinning a research
- They throw more light on how they are linked to research in other fields of study thereby providing a platform for comparisons
- They provide a structured means by which research are classified.

Four other conceptual models identified in the literature are:

Residential Quality Predicting Model

Ha and Weber (1991) posited that socio-demographic and housing practices were co-determinants of residential quality and residential satisfaction as seen in figure 2



Source: (Ha & weber, 1991)

Figure 2: Conceptual Evaluation Model of Residential Quality

According to the model as explained, housing practices and socio demographics characteristics affect quality and satisfaction of residents whilst at the same time residential qualities are themselves having a compound effect on residential satisfaction (Ha and Weber, 1991)

Behaviour Predicting Model

The behaviour predicting model considers residential satisfaction as a resultant reaction to occupants' unsuitable housing condition. This model postulates that residents will either move to another location or make adjustments on a dwelling unit as a strategy to overcome dissatisfaction (Dassah, 2011). This model is often used to explain why homeowners modify their houses. In studies dealing with residential mobility this model is used to predict moving behaviour (Adriaanse, 2007).

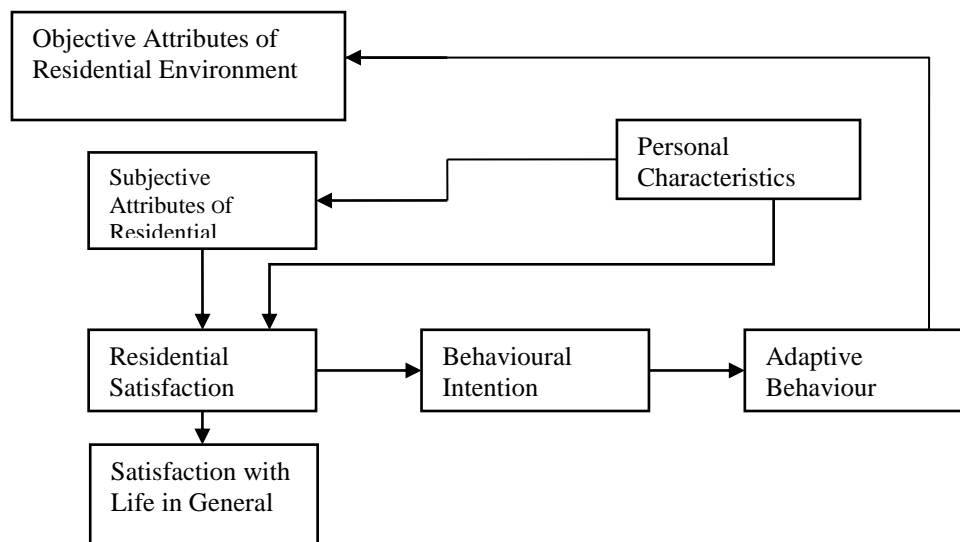


Figure 3: A Systematic Model of Residential Satisfaction

Source (Amerigo 1990, 1992)

Attitudinal Model

This model identifies attitudinal factors as the link between residential satisfaction and social behaviour (Weidemann and Anderson, 1985). The model recognizes that certain intangible qualities cannot be measured on the basis of objective attributes alone (Parkes et al, 2002; Adriaanse, 2007), and so it seeks to integrate the physical attributes of the dwelling/neighborhood, individual resident attributes, with subjective variables (Dassah, 2011).

Multi-Variate Model

This model postulate residential satisfaction as the outcome of multiple correlated variables as seen in figure 3. Synthesizing the variables in such a model therefore, assists in explaining the relationships among the different variable groupings (Dassah, 2011). Variants of this model have been developed and used in previous studies (Canter and Rees, 1982; Muoghalu, 1984; Gilderbloom et al, 2005)

Residential Satisfaction Determinants

Determinants of satisfaction are influenced by diverse opinions from various professional perceptions. These include urban planners and designers, architects, environmental psychologists and policy makers

Urban planners and Designers such as Kelleckci and Berkoz(2009) places much importance on the social issues and quality of life indicating that a dwelling is a social issue which embeds not only its construction and environment but also satisfaction in environmental quality(Sam et al, 2012). Berkoz and his colleagues have emphasized on six parameters that increase the residential satisfaction and environmental quality (Berkoz et al 1999; as cited in Sam et al 2012). These six are:

- Accessibility to various functional areas in the residential area, such as, shopping centre, city centre, works places etc.
- Environmental features of the housing, with factors such as environmental maintenance of open areas , green areas and adequate night lighting
- Facilities in the inhabited environment which include recreational areas, utility services, transport and social facilities
- Environmental security; includes housing's structural safety, environmental safety, and life and property safety.
- Neighbour relationships; includes satisfaction in neighbour relations and social relation as well as acquaintance with many people in the building and neighbourhood
- Appearance of housing environment; these are the physical appearance of the housing estate, and propriety of use (Sam et al, 2012)

Urban planning scholars have also enumerated issues such as crime (Mullins et al 2001), lack of amenities (Mohit et al, 2010) and industrial development as well as long distance to work place as determinants of dissatisfaction.

Architects

Architects have touched on residential satisfaction by defining it as a feeling of happiness when one gets what he/she needs in a house (Mohit et al, 2010). Their main contention is that failure to recognize residential satisfaction in designing projects will lead to severe problems including dissatisfaction in terms of comfort, social, cultural and religious needs. They agree with the urban planners that consequently this influences the quality of life and the psychosocial aspects of the inhabitants (Mohit et al, 2010). Whilst planners and designers emphasized on six main parameters, architects hinged their determinants on three parameters namely;

- Dwelling units, such as, living area, kitchen area, dining room area, bathroom area, bedroom area etc.
- Services provided by developers; this include repairs and maintenance of electricity and water supply, garbage collection and disposal, safety etc.
- Neighbourhood facilities and environment. This includes educational facilities, clinics/hospitals, telecommunication, playground ,public transport ,etc. (Salleh 2008 as cited in Sam et al 2012)

Ukoha and Beamish (1997), as cited in Sam et al (2012), have established that there are four variables that influence residential satisfaction, which are habitants characteristics, building characteristics, management and environmental and location factors .He considered it as a subjective term, which depends on many variables, as well as time and this is not absolute, depends on housing conditions and are static. (Sam et al, 2012). Mohit et al (2010) asserts architects in general believe that residential satisfaction is a composite term constituted of various indices of satisfaction and dwelling unit features. They also believe it depends on housing quality which has two different objective and subjective scales (Sam et al, 2012) whilst the objective measurement examines the physical aspects of housings features, the subjective deals with perception, satisfaction , aspiration, and disappointments (Nurizan and Hashim,2001)

Environmental Psychologists

In the realm of the environmental psychologist two main parameters have been identified namely centrality and socio-physical characteristics of residents. These include social and neighbourhood relationships, social activities, social facilities, scenery and utility services (Sam et al, 2012) assert that residential satisfaction is a reflection of the sentiments of satisfaction and joy in a residential area (Kellekci and Berkoz,2006). De young (1999) establishes a linkage between human behavior and their surrounding environment. This group of professionals sees RS as cognitive, affective or behavioral studies known as personal characteristics (Amerigo, 1997; as cited in Sam et al, 2012) .

Policy Makers

Residential satisfaction has been considered by policy makers as a major factor in preparation of guidelines for housing construction for a variety of people (Sam et al, 2012)

Policy makers main focus are on the relationship between the extent of satisfaction of individual's housing desires and needs without touching on the details of satisfaction (Salleh ,2008).

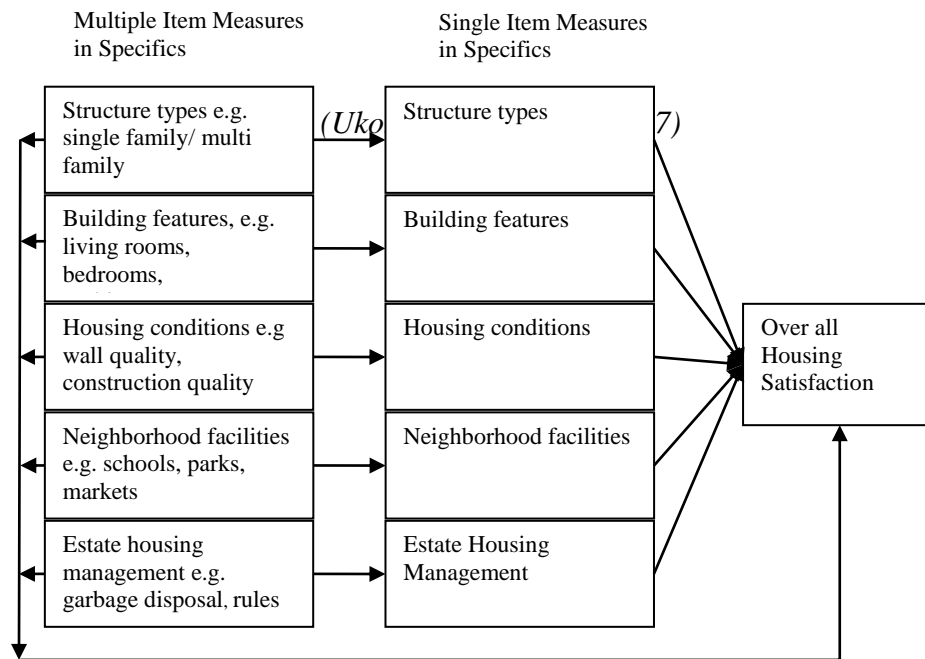


Figure 4.: Relationship Between Specific Housing Features, Housing Norms and Housing Satisfaction

Source (Ukoha & Beamish, 1997)

In their opinion once, the occupant does not have the desire to move or perhaps alter their homes then residential satisfaction has been achieved.

This has been criticized by Ukoha and Beamish (1997) on the basis that a resident may desire change but may not be able to due to various reasons such as lack of choice or resources, and this could result in chronic satisfaction. Others have viewed deficit as the main concept in explaining the phenomena (Bruin and Cook, 1997). The deficits in the building features will ultimately lead to subjecting inhabitants to substandard housing (Sam et al, 2012). Hence there is the need for policies for public housing to specify standard building features and space standards for dwelling units (Ukoha and Beamish, 1997)

Summary of the findings from the literature in relation to various perspectives from professionals point to ten parameters that influences residential satisfaction. These are: 1.Neighbourhood, 2.Social demographic characteristics, 3.Dwelling unit features, 4.Dwelling unit support services, 5.Housing conditions, 6.Structure type, 7. Housing and estate management, 8.Facilities in the inhabited environment, 9. Environmental features of housing, 10.Neighbour relationships.Sam et al (2012) identify in order of importance the rubrics emphasized by the four groups of professionals as location of house for neighbourhoods; social demographics; housing, and estate management. This study has adapted a variant of the multi variant conceptual model established by Ukoha and Beamish (1997) which established a direct link between housing satisfaction and housing norms. The model suggested a relationship between the independent variables (single item measures of structure types, building features, housing conditions, neighbourhoo facilities, housing management, and the multiple item measures of the specific features of the housing characteristics).

RESEARCH METHODOLOGY

A quantitative approach was adopted with a stratified random sampling technique employed to guarantee a representative sample. This approach was used to gather factual data and study their relationships in accordance with existing theories and findings through open ended semi structured questionnaire and interviews. A proportion allocation due to the different locations of the neighbourhoods was then used to select the houses for the study. A semi-structured questionnaire, which contained a 70-item scale and grouped into 6-sections, was distributed. A five point Likert Scale was used through the factor analysis method. The advantage of Likert scale is that it is easy to construct and it allows the respondents to answer the questionnaire according to their degree of feelings toward the statements (Barnett, 1991). Likert scale also provides a highly reliable scale compared to the open-ended question (Malik, Mushtaq, Khalid, Khalik, & Malik, 2009). These were distributed personally to the house owners or household heads. This was as a result of the management concerns of safeguarding the privacy, safety and security of client's property. Thus a house to house approach was adopted to seek those who were willing to answer the questionnaire. A five minute exposition of the questionnaire was given by the author to each willing occupant. In order to ensure maximum responses to the questionnaires, respondents were briefed regarding the purpose of the survey and reassured that the information provided will be kept confidential and will be used for research purposes only. Face to face, interviews were conducted with persons such as representatives of the neighbourhood association and estate officers as well observations of existing situations in and around the houses.

Statistical software SPSS version 21 tools were used in analysing various data. A Likert scale ranging from "1" = highly dissatisfied, "2"=dissatisfied, "3"=cannot tell, "4"=satisfied and "5"=highly satisfied, was used to measure respondents' level of satisfaction on various housing components. The overall satisfaction for each feature of residential satisfaction was analysed based on a mean score of 3.00 as positive indication of satisfaction, and values below 3.00 indicating dissatisfaction. The data collected was analysed using Statistical Package for Social Sciences (SPSS version 21.0), for frequency distribution of the variables under study, including mean, standard deviation and percentage scores of satisfaction. Further analysis was carried out using cross tabulation, and a regression analysis of variables. The regression analysis was performed to estimate the coefficients of overall housing satisfaction to; housing conditions, building features neighbourhood facilities and management performance. A Habitability Index as used by Mohit (2010) in assessing Residential Satisfaction in Newly Designed Public Low-Cost Housing in Kuala Lumpur, Malaysia was applied to the corresponding data to determine the various levels of satisfaction. This is represented by the formula as follows:

Habitability Index Formula

Habitability index

$$HIX = \frac{\sum_{i=1}^N ay'x}{\sum_{i=1}^N Ay'x} \times 100$$

HIX represents index of habitability of variable x and N is the number of respondents, while $ay'x$ is the actual score on the five-point Likert scale by the y^{th} respondent on the x^{th} variable.

‘A’ represents the maximum possible score that respondent y’ could give to variable x on the five-point scale. The purpose of computing habitability indices (HI) is to ascertain the specific variables of the general housing environment that contributed to the degree of satisfaction or dissatisfaction of the respondents (Ogu, 2002, p.44).

FINDINGS AND DISCUSSION

The Study Area

The sites are located in the suburbs of East Airport in Accra North District and Dome Kwabenya in the GA East District in the Greater Accra region. These sites are gated communities with sold out houses and run by private estate management organisations. Further analysis aimed at exploring respondents by their structure type, revealed that 68.8% of them live in detached house types with only 6.2% living in condominium/flats.



Figure 5: An Aerial View of One of the Gated Communities In Accra

Source: Google Earth, 2013

About 69% of the people who live in their area are the owners of the houses while 10.9% of them are caretakers. For length of stay, 47.9% of the people have lived in the area for 6-10 years. When asked the mode of payment of houses 52.1% indicated that they pay through instalment packages

Sample Population and Response Rate

The two locations had a total number of 137 and 567 houses for Dome Kwabenya and East Airport respectively. In order to maintain a 95% confidence level and a 0.1 error level, the study aimed at surveying 143 respondents, that is 58 responses from Dome Kwabenya and 85 responses from East airport. 102 and 208 questionnaires were distributed to house owners and tenants, with 79 and 113 responding positively at Dome and East Airport respectively. The response rate were 77% and 54%

Characteristics of Respondents

Majority of the residents, 46.5% fell between the 31-50 age group and in all 86.1% of the residents were above age 30 signifying that the respondents are aged/matured people. They

were male dominated (75.5%), of various religious faiths with Christianity as the dominant religion (74%). Residents were well educated with all of them having some level of education, 77.6% of the people had tertiary education with 3% having basic education. Employment rate was high (85.8%), most of them belong to Private sector (47.9%) and self-employment (37%). Income level was high as more than 50% of the respondents indicated their monthly income were above GHC 1000 (\pm \$ 350). Most respondents (79.9%) were married with moderate family sizes, 63% indicated a family size of 3-5 and 30.7% had 1-2 family size.

SATISFACTION AND HABITABILITY INDEX OF HOUSING AND NEIGHBOURHOOD VARIABLES

Analysis of the internal consistency of Housing and Neighbourhood features

The study used a scale of 1 – 5 to ask respondents to indicate their satisfaction level with respect to housing and neighbourhood facilities, where 5 is highly satisfied and 1 is highly dissatisfied. The reliability tests of these variables are given in Table 4.2. The items of the housing and neighbourhood facilities have acceptable internal consistency, $\alpha > 0.6$ for all tested attributes.

Table 1 : Reliability Test of Housing and Environmental Variables

Attribute	Number of Items	Cronbach Alpha
Housing Conditions	10	0.989
Building Features	9	0.964
Neighbourhood Facilities	13	0.970
Management	7	0.961
Total variables	39	

Source: Field survey 2013

Residents Satisfaction with Housing Conditions

Respondents indicated a high satisfaction for all the tested aspects of the house (HI > 60 for all variables). Painting and finishes recorded the highest value (HI = 82.2) whiles Floor quality and Door/Window quality recorded the least mean values (HI = 73.4). It is important to stress that the habitability index for Day lighting quality, Natural Air Flow, Plumbing works and Electrical works recorded high habitability index signifying their greater acceptance. However, the high standard deviation values indicate that some of the respondents do not confirm such trend. Both natural air flow and electrical works correlated negatively with overall satisfaction whiles General construction quality, plumbing works and external works related positively. The strength of the relation was strongest for external work ($\beta = 0.534$) followed by general construction works ($\beta = 0.343$) and plumbing works ($\beta = 0.343$). On the other hand, natural air flow had the weakest relationship ($\beta = 0.224$). The model recorded a high adjusted R^2 (0.975) suggesting that 97.5% of the variations in the overall satisfaction is explained by the tested variables.

Table 2 : Satisfaction and Habitability Index For Housing Conditions

Aspect of the House		1 HD	2 D	3 CT	4 S	5 HS	Habitability Index (HI)
Painting and finishes	N	1	7	8	49	36	
	%	1	6.9	7.9	48.5	35.6	82.2
Wall Quality	N		10	9	91	25	
	%		7.4	6.7	67.4	18.5	79.4
Day lighting quality	N	9	11	28	75	69	
	%	4.7	5.7	14.6	39.1	35.9	79.2
Plumbing works	N		15	9	37	19	
	%		18.8	11.2	46.2	23.8	75
Electrical works	N	2	12	6	45	14	
	%	2.5	15.2	7.6	57.0	17.7	74.4
Natural Air Flow	N	5	12	3	40	19	
	%	6.3	15.2	3.8	50.6	24.1	74.2
External works	N	2	8	14	44	11	
	%	2.5	10.1	17.7	55.7	13.9	73.6
Door/Window Quality	N	5	16	9	93	12	
	%	3.7	11.9	6.7	68.9	8.9	73.4
Floor quality	N		21	8	101	5	
	%		15.6	5.9	74.8	3.7	73.4
General Construction quality	N		11	14	99	11	
	%		5.7	7.3	51.6	5.7	76.2

Source: Author's Extract from Survey Data, 2013

The evidence from the findings indicates that respondents have high satisfaction for all the tested aspects of the house with painting and finishes being the highest satisfaction objects while floor quality and door/window quality recorded the least satisfaction comparatively. Even though the peoples' overall satisfaction related to general construction quality, natural air flow, electrical works, plumbing works and external works, the evidence indicate that the people were dissatisfied with the natural air flow and electrical works in the houses. The reason could be attributed to shoddy work, size and type of windows, and lack of cross ventilation in some of the spaces.

Residents Satisfaction with Building Features

All variables had $HI > 60$ indicating that the building features are in good shape and are desired by residents (table 3). However, respondent indicated that they are more satisfied with Room length (87.6), Size and location of entrance (87), Roofing (86.4) and Bedroom sizes (86.2). On the other hand, their satisfaction with verandas and balconies (74.8) and Toilet and washrooms (73.2) were comparatively lower. Roofing, bedroom sizes, family area, corridors, toilet and washroom, and privacy related with overall satisfaction (table 4.6). Family area and privacy related negatively whiles roofing, bedroom sizes, corridors, toilet and washroom related negatively with overall satisfaction. Toilet and washroom had the strongest relation with satisfaction ($\beta = 0.726$) whiles corridors had the weakest relation ($\beta = 0.239$). The model recorded a high adjusted R^2 (0.914) suggesting that 91.4% of the variations in the overall satisfaction is explained by the tested variables. Another finding was the gradual shifting away from the use of traditional garages to car ports and canopy sheds. This phenomenon can be attributed to the high level of security within the estate which gives the residents confidence that they can leave their cars in the open compound.

Table 3 : Satisfaction and Habitability Index For Building Features

House Features		1 HD	2 D	3 CT	4 S	5 HS	Habitability Index (HI)
Room Length	N		2	2	53	44	87.6
	%		2	2	52.5	43.6	
Size and Location of entrance	N		2	9	42	48	87
	%		2	8.9	41.6	47.5	
Roofing	N		4	1	55	41	86.4
	%		4	1	54.5	40.6	
Bedroom sizes	N		3	13	35	60	86.2
	%		3	12.9	34.7	49.5	
Family Area	N		12	4	113	14	78
	%		8.4	2.8	79	9.8	
Privacy	N		4	47	114	22	76.4
	%		2.1	25.1	61	11.8	
Corridors	N		8	47	114	17	75
	%		4.3	25.3	61.3	9.1	
Verandas and Balconies	N		2	61	114	15	74.8
	%		1	31.8	59.4	7.8	
Toilet and Washrooms	N		12	54	114	12	73.2
	%		6.2	28.1	59.4	6.2	

Source: Author's Extract from Survey Data, 2013

The high habitability Index provided for building features suggest that respondents were highly satisfied with the building features of the studied areas. Just like the housing conditions, the people related positively to the external features of the building such as the room length, size and location of entrance, roofing and bedroom sizes. It could be that management engaged extra efforts in providing attractive and large size features to attract

potential buyers. It is important to note that all the structures under the building features are objects that are easily noticeably and management foreseeing that enhanced their qualities. Thus the people noted high satisfaction for all the structures under the building features.

An important point of note is the variation of level of importance management pays to visible and obscure features. Features that are easily noticeable were seen to be paid more attention to enhance its beauty and quality. The result is seen in the level of acceptance respondents give to the various features. Items such as room length, size and location of entrance, and bedroom sizes being very noticeable objects were constructed to attain high quality. On the other hand, items that are a little obscure such as verandas and balconies and toilet and washroom had a lower correlation with the overall satisfaction. There is indeed a high possibility that management did not pay much attention to the quality of the obscure objects.

Residents Satisfaction with Neighbourhood Facilities

The analysis revealed that respondents were more satisfied with the lower rate of crime incidence (HI= 87.8), location of house (HI= 83.2), Location of workplace (HI= 83.2), and neighbour relations (HI= 81.8; table 4.7). On the other hand, they were less dissatisfied with School facilities (HI= 51.4), Health facility (HI= 54.2), Children facility (HI= 47) and Market facility (HI= 53.8).

The low crime rate coupled with the attractive landscape could attract more people into the area as crime free environment is desired by everyone. Neighbourhood relations, neighbourhood relations, public transport system, street light, and recreational facilities related positively with overall satisfaction. Public transport system recorded the highest effect ($\beta = .310$), whiles neighbourhood relations recorded the least effect ($\beta = 0.097$).

Table 4 : Satisfaction and Habitability Index For Neighbourhood Facilities

Aspects of Neighbourhood		1 HD	2 D	3 CT	4 S	5 HS	Habitability Index (HI)
Incidence of crime	N	2	6	9	73	101	87.8
	%	1	3.1	4.7	38.2	52.9	
Location of house	N		3	16	121	52	83.2
	%		1.6	8.3	63	27.1	
Location of workplace	N	2	6	3	130	51	83.2
	%	1	3.1	1.6	67.7	26.6	
Neighbour landscape	N		1	14	144	33	81.8
	%		5	7.3	75	17.2	
Street lighting	N		10	17	122	43	80.6
	%		5.2	8.9	63.5	22.4	
Public transport systems	N	1	21	14	109	47	78.8
	%	5	10.	7.3	56.	24.	

			9		8	5	
Neighbour relations	N		2	57	113	20	75.8
	%		1	29.7	58.9	10.4	
Recreational facilities	N	5	17	25	112	31	75.4
	%	2.6	8.9	13.2	58.9	16.3	
Health facilities	N	9	92	36	55		54.2
	%	4.7	47.9	18.8	28.6		
School facilities	N	15	78	72	26		51.4
	%	7.9	40.8	37.7	13.6		
Children facilities	N	34	85	45	28		47
	%	17.7	44.3	23.4	14.6		
Impression of Neighbourhood	N	1	3	28	134	26	78.8
	%	0.5	1.6	14.6	69.8	13.5	

Source: Author's Extract from Survey Data, 2013

Conditions at the neighbourhood are desirable as the people indicated a high satisfaction for them. Criminal activities are not common in the study areas and landscape conditions are also attractive. The low crime rate coupled with the attractive landscape attracts more people into the area as crime free environment is desired by everyone. The people were also satisfied with the location and proximity of their house and workplace in relation to the neighbourhood. Indeed, the presence of these desirable neighbourhood structures has given a positive image of the area thereby attracting more people into the area. However, features for children such as school and children facilities do not meet the satisfaction of the people. Similarly, health and market facilities are not provided for the people. The absence of standard children, market and health facilities could have detrimental impact on the future quality of residents in the area. The demography data indicated that majority of the respondents are well educated. Highly educated parents may want their children to attain certain level of high quality education. However because most of them owned vehicles, they prefer taking them to the schools of their choice. Though they lack certain basic facilities such as recreational parks, shops etc., a comparison to the suburbs they are located indicate they are far better than their neighbour's. This may explain why they are still satisfied with their neighbourhood.

Residents Satisfaction with Management Practices

The respondents indicated a high satisfaction indices for levies (HI = 82.6), compliance of rules (HI = 80), and General impression about management (HI = 81.6). On the other hand, they scored lower for Rules and regulations (HI = 75.8), and response to complaints (HI = 71.6) comparatively

Sewage disposal and other services, rules and regulations, compliance of rules, and general impression about management related with overall satisfaction (table 5). The relation was

positive in all cases. Compliance of rules recorded the highest effect ($\beta = 0.366$) while general impression about management recorded the least effect ($\beta = 0.191$).

Table 5 : Satisfaction and Habitability Index For Management Practices

Aspect of the House		1 HD	2 D	3 CT	4 S	5 HS	Habitability Index (HI)
Levies	N		1	33	98	60	82.6
	%		0.5	17.2	51	31.2	
Compliance of rules	N		25	17	83	67	80
	%		13	8.9	43.2	34.9	
Punitive measures	N	13	14	12	88	65	78.6
	%	6.8	7.3	6.2	45.8	33.9	
Sewage disposal and other services	N	5	15	27	106	37	76.4
	%	2.6	7.9	14.2	55.8	19.5	
Rules and regulations	N	4	25	11	116	34	75.8
	%	2.1	13.2	5.8	61.1	17.9	
Response to complaints	N	21	23	32	56	60	71.6
	%	10.9	12	16.7	29.2	31.2	
General impression about Management Practices	N	1	5	23	111	52	81.6
	%	0.5	2.6	12	57.8	27.1	

Source: Author's Extract from Survey Data, 2013

On management practices, the people noted a high satisfaction for levies, compliance of rules and general impression about management. Perhaps looking at the quality of the building features and the neighbourhood facilities, the people could relate to their paid levies. Also they felt that neighbours do comply with rules and had generally positive impression about management. It could be that, the people were well organized and seemed to comprehend the direction management leads. This was so because, the demographic data noted that the people were mostly educated and matured. Such people could easily reason with management.

On the other hand, issues such as rules and regulations and response to complaints were not satisfied. The people felt that though management was making improvement in relating to them yet there was still room for improvement. They thought that the established rules and regulations were not promoting the expected outcomes and perceive management to better respond to their complaints. In organized and civilized environments, rules and regulations must exist and function well to sustain the system.

CONCLUSIONS AND RECOMMENDATIONS

Evidences from both literature and findings confirm the multiplicity of satisfaction variables. Just as Bordass (2004), argue that the relationship between buildings and occupiers is constantly changing, with frequent clashes between operational requirements and physical facilities. With the four main thematic areas assessed under the study, some elements of each of these categories exist to be determinants of peoples' satisfaction. Thus the evidence related more to the multi-variant model which postulate residential satisfaction as the outcome of multiple correlated variables (Dassah, 2011; Canter and Rees, 1982; Muoghalu, 1984; Gilderbloom et al, 2005)

The literature documents certain parameters that predict people's satisfaction in the residential environment. For instance some planners state that housing conditions is the main parameter in determining residential satisfaction (Fang, 2006). Others such as Baker (2002), imparts that location characteristics are important parameters in determining residential satisfaction. Yet still, Ukoha and Beamish (1997) argues that the addition of public transportation, community and shopping facilities are predictors of residential satisfaction. In as much as these positions reflect the trend in the evidence of the study, there is a strong suggestion that several factors encompassing the housing and building features, neighbourhood relations, and management are joint determinants of peoples' satisfaction in the residential environment.

The comprehensive overview provided by Kellekci and Berköz (1999) that identify the main areas as necessary determinants of satisfactions provides a strong point of reference. These are: accessibility to functional areas; environmental features; environmental security; neighbour relations and general housing landscape. Thus though it was evident that residents expressed reservations in some satisfaction variables yet they consciously compared/weighed this against the suburb within which it was located and perceived they were better off. These conclude the fact that people will prefer a serene and secure environment even if they are disadvantaged in terms of workplace distance.

The study provides the following recommendations to enhance peoples' residential satisfaction and conditions in the Ghana real estates.

1. Further comprehensive research needs to be conducted in order arrive at the actual determinants of residential satisfaction in Ghana.
2. The Real Estate Industry must be made to include in their master plans green and sustainable methods of disposing waste within their communities
3. It is also recommended that the Government establishes an oversight committee to see to the operations and management of these estates within the national capital and other regional centres where annual performance surveys are conducted. Within this committee there should be a complaints unit where aggrieved residents and owners can seek redress.
4. In view of the very complex nature of the development of urban real estate communities it is recommended that the municipal and metropolitan authorities in collaboration with the built environment professional associations come out with guidelines; vet and supervise the development of such in order to ensure that proper standards are maintained to the satisfaction of the ultimate user.

This study has thus given a fair overview of the levels of satisfaction of residents in the Ghanaian real estate housing industry and given a further indication to developers and researchers as to residents preferences and changing needs of these which must be taken into consideration when providing such neighborhoods.

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