

A Study on the Choice of Amenities by Senior Citizens in Gated Communities at Coimbatore, Tamil Nadu

***K.Balakrishnan**

****Dr.A. P. Muthulakshmi**

*Research Scholar, Bharathiar University, Coimbatore

**Principal, CMS Academy of Management and Technology, Chinnavedampatti, Coimbatore - 641006

1. Abstract: A person gets retired from his job or business, but not from his life. If the longevity permits, he or she, lives even hundred plus. Very less importance was given world-wide for elderly people and their needs were not addressed with proper care and attention. The developments of Gated Community over last three decades, has taken note of this fact and provided security, amenities and a pleasant 'life style', and rejuvenated the seniors to live the rest of their life happily. Senior Welfare Industry had evolved globally and the senior's dependence on their children has fully come down making them independent. The researcher has studied how far this concept of 'old age and Gated Community' are complementary each other, with special reference to Coimbatore City, in Tamil Nadu. The variables associated with seniors such as security, maintenance, health awareness, time passing, central kitchen, and progressive thinking are analysed and inferences made. The summary of findings conclude that the life style of modern Senior Citizens, will fit-in well with the Gated Community and they can continue to be happy and independent.

Key Words: Senior Citizens, Elder Care, Life style, Senior Welfare Industry, Centralized Kitchen

2. Introduction: One of the Tamil Songs, states that retirement age is the beginning of real life for a person, either man or women. The statement can be justified that a person works and toils for his family, employer, society, nation and for the world, but he fails to live for him selves. He does not eat in time, checks his health periodically, visits his close relatives near-by or far-off, neither goes nation tour or world tour nor any pilgrimage of his choice. . Women does not take of a day's off from kitchen even on festival days, fails attend to her grown-up children's' needs, till she reaches her late fifties. *Korean Professor Sun-hynk KIM (2003)* states that the 'number of elderly people' and their 'ratio of retired to working age people' represents a significant and serious challenge to policy makers, to take care of their special needs of their advanced needs, (2003). The researchers made an attempt to quantify the senior citizens covered in Coimbatore, and their modern needs and how the Concept of Gated Community has addressed their requirements, by their modified life style, if so, to what extent? Hence this study.

3. Review of Literature:

The capacity of the Government, to make anything other than basic provisions for the elderly, is always under threat. The strain put on health and care services by a growing number of old people means that high quality provision will come from the "Senior welfare industry" rather than through the 'state'(Government bodies) (*Professor Sun-hynk KIM/2003*) . 'Senior welfare industry' can be defined as businesses whose consumers are the aged and young people preparing for their old age, and which supply health care and other commodities and services as dictated by market economics (Kyonggi Developments Research Institute, 1998. Many builders have started addressing the need of this retired community and their interest in the senior welfare industry (grey market) which has increased in recent years. In the process of becoming more rapidly-aging society, rising incomes and distinctive lifestyles amongst affluent elderly have caused an increase in demand by seniors, which in turn has resulted in a variety of products and services targeted at the elderly, such as retirement services (*Garcia, 1980 Dwight and Herman, 1985*). Senior citizens with discretionary income have come to depend less on Government support and support from their children, preferring instead to use their own pocket (*Benet*

and Newman, 1989). USA, Japan, France, Italy, and Germany are increasingly concerned with the aging of their population.

As per the Bureau of the Census, the elderly United States population, 65 years or over accounted for 12.8% of the US population in 1995. By 2025 those 65 or older are expected to constitute appropriately one fifth of the US population. Due to low fertility, universal access to health care, affluence and low and relatively low fat diet, the numbers of elders in Japan has grown more rapidly than any other population in history. The number of Japanese elders 65 or over accounted for approximately 16% of the population in 1999. Demographers estimated that by 2015, one in four in the total Japanese population will be 65 or older. Starting at 52.4 years in 1960, the average life-span of the Korean Citizenry rose to 73.5 years, over past 35 years and by year 2030, it will reach 79, bringing Korea in to a stage, when average life span will be at or above 80 years. It is estimated that it will cost twice the maintenance, as much as four or five times that for a young citizen. Medical and social services are needed including Gerontology clinics, Convalescent homes and home medical care for elderly people, which needs huge and effective investment by the public sector (Gibelman, 1999, Kyonggi Development Research institute, 1999).

Seniors from all walks of life in almost all countries, experience the same sort of problems. (Kippel, 1974). Seniors with financial means are trying to satisfy their extra needs in the market place (Bivins, 1984). The population of seniors living alone is rapidly increasing, and they are demanding social support, which will help them to live independently. The time has come to take notice of the change in attitudes towards old age, as seniors continue to be healthier longer, to have their financial means, and to live independent from their children (Sung-hyuk KIM 2003).

4. Statement of the problem:

As per Wikipedia – Demographics, the elderly Indian population in 2009 was 5.3%. The elderly US population in 1995 was 12.8%, and in Japan it was 25% in 2015. But now in 2016, the sample of 525 in Coimbatore accounts for 43.7% Senior Citizens, which highlights that the City is crowded with aged people. How the Senior Citizen, who do not have direct income, could acquire Gated Community houses, who are more in numbers, i.e., 43.7%? If there is no direct income for them, how do they sustain in a GC? What is the definition for Senior Citizen and their classification? Along with the 'longevity' and 'life expectancy', what sorts of their needs and demands got increased and how they are addressed? What are the modern 'life style aspects' for Senior Citizen in a GC? What are the amenities they are looking for, and what types of food they prefer? What is the need of 'Central kitchen', and is it acceptable to Senior Citizen? How the leisure time is utilized by Senior Citizens, and it could be positive and constructive? Is a senior citizen home the abode for abandoned parents and grandfathers, or it is a "Paradise for Senior Citizens"? What are the 'progressive thinking' for senior citizens and their endeavour for Continuous self Improvement? Is this 'social change revolution' 'welcomeable', in line with global trend? With these research questions in mind, the study was carried out.

5. Objective of the study:

- a. To study the needs of Senior Citizens, in the residents of Gated Community in Coimbatore of Tamil Nadu.
- b. To analyse the amenities provided to seniors and the level of satisfaction they have in Gated Community apartments.
- c. What is the life style pattern of Senior Citizens, in the selected GCs?

6. Hypothesis:

H1: There was no significant difference between Gated community Senior Citizens and their Income level.

H2: There was significant difference between amenities provided to Senior Citizens and their satisfaction level.

7. Methodology

On close watch over the developments in housing and real estate Industry at macro level in India, and also the efforts taken by the Union and State governments, to address the needs of people, 'Gated Community' was identified as the area of study. Secondary data were collected from various newspapers, journals, libraries, Internet websites, leaflets collected from 'Housing Exhibitions'. For the purpose of Pilot study, 35 questionnaires were got filled from Gated Communities at Vadavalli, and Saravanampatti and a total of 525 feed backs were collected from the respondents from all the above areas, by Convenient Sampling method. The Questionnaire has 'four' segments, namely, A. demographic details, B. Life-Style attributes C. Life-Style Choice attributes and D. Life-Style variables for Senior Citizens. In order to get subjective data, such as preferences, likings, choices etc, Likert's five point scaling technique was used. The appropriate variables were identified and the co-relation between the variables is analysed and interpretations, drawn. On studying the geography of Coimbatore, clusters of Gated Communities are up-coming in North, North – West, North-East, South-East and South-West, of the City. The town-ships covered under these areas include, R. S Puram, Thudiyalur, Saravanampatti, Vadavalli, Thondamuthur, Ramanathapuram, and KovaiPudur. The respondents from the Gated Communities from these areas will represent the entire city, Coimbatore. Hence, Purposive Sampling procedure was followed.

8. Limitations of the study

Originally the researcher was planning to collect the data exclusively from Senior Citizens homes such as Serene-Shenbagam, Idikarai, Ananya Shelters- 4 Units of Nana Nani(Senior Citizen's Paradise) Vadavalli, Covai property centres, Sreevatsava Global village, and Arokyakudumbam, Senior Citizen home. Due to time and permission constraints, the data collection was done, not exclusively from Senior Citizen's homes, but also from general types of Gated Communities in Coimbatore. Since the percentage of Senior Citizens in the sample of 525 is 43.7%, which was arrived at from the age group 55-70 years and 71 years and above, the relevant variables were identified and views given by the entire sample residents, were attributed to for Senior Citizens. The income levels were not fully revealed by few the senior citizens, and the analysis was done basing on the available data. These limitations will prompt or give scope for the new researchers to do research exclusively in Gated Communities in Coimbatore, mentioned above.

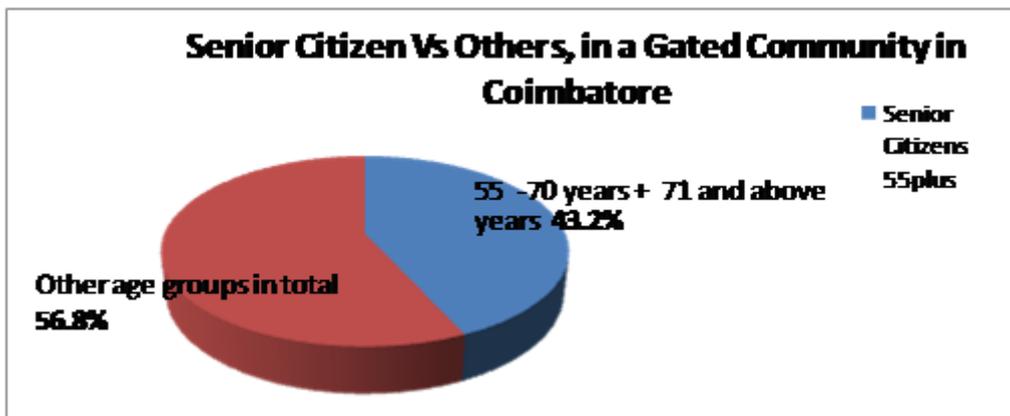
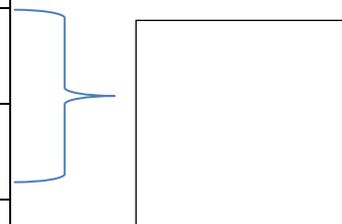
9. Analysis and interpretations:

Table 1

Age of the respondents

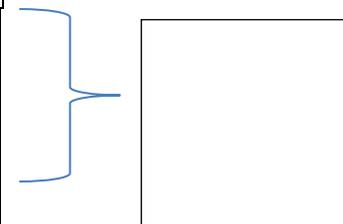
The data collection by the researcher and its analysis shows that there are 43.2% of the Gated communities in Coimbatore, constituted by Senior citizens:

GC Age	No. of. Respondents				Total
	1BHK	2BHK	3BHK	Villa	
up to 30 years	1 (2)	22 (43)	12 (24)	16 (31)	51 (9.7)
31-55years	9 (4)	111 (45)	60 (24)	67 (27)	247 (47.0)
56 - 70 years	5 (3)	66 (40)	42 (26)	51 (31)	164 (31.2)
above 71 years	2 (3)	22 (35)	20 (32)	19 (30)	63 (12.0)
Total	17 (3)	221 (42)	134 (26)	153 (29)	525 (100)
Mean	2.4706	2./3982	2.5224	2.477	2.4532
Std. Deviation	0.7998	0.8004	0.8569	0.8435	0.82679



As far as Coimbatore GC is concerned, the ratio of working people and the Senior Citizen amounts to 56.8% and 43.2% respectively

GC Age	No. of Respondents				Total
	1BHK	2BHK	3BHK	Villa	
56 - 70 years	5 (3.1)	66 (40.2)	42 (25.6)	51 (31.1)	164 (100)
Above 71 years	2 (3.2)	22 (34.9)	20 (31.7)	19 (30.2)	63 (100)
Total	7 (3.1)	88 (38.8)	62 (27.3)	70 (30.8)	227 (100)



Out of 227 Senior Citizens, 72.2% are in the age group 56 -70 years and 27.8% are in the age group of above 71 years. There are 105 men and 59 women (total 164) in the age group 56 -70 years and 40 men and 23 women (total 63) are in the age group of above 71 years.

Table -2

Income from other sources

To analyse whether the supporting income of respondents has any influence on the type of house in a Gated Community.

Supporting income from other sources of the respondents :

GC Others Sources of Income	No. of Respondents				Total	%age
	Below 1 lakh	1-3 lakhs	3-5 lakhs	5 lakhs above		
Rental income	110	-	-	-	110	20.9
Interest form deposits	60	90	12	-	162	30.9
Dividend from deposits/ mutual funds	54	23	-	-	77	14.8
Pension amount	77	-	-	-	77	14.6
Agriculture land income	7	51	-	-	58	11.0
Income from other sources	41	-	-	-	41	7.8
	355	164	12	-	525	100

It is observed that 30.9% of the residents are having Interest from deposits, 20.9% are having Rental Income, 14.8% of the people, getting dividends from deposits/ mutual funds, 14.6% of the senior citizens are getting Pensions, and 7.8% get income from other sources.

Hypothesis -1

Ho: There was no significant difference between Gated community and supporting income from other sources of the respondents

H1: There was a significant difference between Gated community people and supporting income from other sources of the respondent

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Rental income	Between Groups	.074	3	.025	.147	.931
	Within Groups	86.879	521	.167		
	Total	86.952	524			
Interest from deposits	Between Groups	2.747	3	.916	1.255	.289
	Within Groups	380.156	521	.730		
	Total	382.903	524			
Dividend from deposits/ mutual fund	Between Groups	.190	3	.063	.684	.562
	Within Groups	48.256	521	.093		
	Total	48.446	524			
pension amount	Between Groups	.542	3	.181	1.445	.229
	Within Groups	65.164	521	.125		
	Total	65.707	524			
agriculture land income	Between Groups	2.074	3	.691	1.934	.123
	Within Groups	186.295	521	.358		
	Total	188.370	524			
income from any other sources	Between Groups	.281	3	.094	.924	.429
	Within Groups	52.862	521	.101		
	Total	53.143	524			

The above Table – 2, indicates that in One way ANOVA, the total variable is classified into two components ‘between groups’ and ‘with-in groups’ representing the variation of the groups among the supporting income from other sources of the respondents in the Gated Community. ‘F’ test values’ show the respective group means, which indicate the significant levels. Small significant value (0.05) indicates the group difference, it is inferred that the significant level is observed to be greater than 0.005 percent level.

Table – 3

Results of Linear Multiple Regression Analysis – Effect on Elder friendly facilities / house design of the Gated Community Senior Citizens

To understand the effect of independent variables on the dependent variable namely **Elder friendly facilities / house design among** Gated community, Linear Multiple Regression model was employed.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.295 ^a	.087	.078	.86186

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.671	5	7.334	9.874	.000 ^a
	Residual	385.512	519	.743		
	Total	422.183	524			

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.285	.261		16.389	.000
	Access to senior specialty stores	-.066	.045	-.062	-1.455	.146
	Provision of ramps, slopes, instead of staircases for easy walk/ wheel chair use	-.246	.046	-.228	-5.374	.000
	Provision of handles in all requirement places (Toilets, closer to bed etc)	-.163	.045	-.153	-3.618	.000
	Central Kitchen food service – dining hall @ doors	.012	.035	.014	.341	.733

It is observed that Independent variables Provision of ramps, slopes, instead of staircases for easy walk/ wheel chair use (0.000) , Provision of handles in all requirement places (Toilets, closer to bed etc)(0.000) Access to senior specialty stores (0.146)and Central Kitchen food service are influencing on the dependent variable Elder friend facilities in GC living.

Table – 4

Results of Linear Multiple Regression Analysis – Effect of noise pollution, free atmosphere on the Gated Community Senior Citizens

To understand the effect of independent variables on the dependent variable namely Noise pollution and free atmosphere among Gated community, Linear Multiple Regression model was employed. Two independent variables were statistically related to pollution free atmosphere as dependent variable.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.682 ^a	.007	.003	.89626

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.869	2	1.435	1.786	.069 ^a
	Residual	419.314	522	.803		
	Total	422.183	524			

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.661	.131		20.269	.000
	Absolute silence	-.012	.029	-.018	-.398	.091
	Total pollution free	.054	.028	.084	1.888	.060
a. Dependent Variable: Selection of GC Apartment						

It is observed that Independent variables Total pollution free (0.060) is more significant than the Absolute silence (0.091)on the dependent variable Selection of GC Apartment .

Table – 5

Results of Linear Multiple Regression Analysis – Effect on life style variable for Senior Citizen of the Gated Community People

To understand the effect of independent variables on the dependent variable namely **life style variable for senior citizen among** Gated Community, Linear Multiple Regression model was employed.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.132 ^a	.018	.010	.89311

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.407	4	1.852	2.322	.056 ^a
	Residual	414.775	520	.798		
	Total	422.183	524			

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.233	.198		16.366	.000
	Special design to bath attached bed rooms – even floor for wheel chair flow	.009	.036	.011	.254	.800
	Green topping (Lawn)	.043	.044	.050	.977	.329
	Garden / Plants with flowers	-.067	.042	-.081	-1.601	.110
	Walking and meeting points	-.132	.051	-.112	-2.569	.010

It is observed that Independent variables namely walking and meeting points (0.010), Garden / Lawn/ Plants with flowers (0.110) Green topping (0.329), Special design to bath attached bed rooms – even floor for wheel chair flow(0.800) are influencing on the dependent variable life style variables for Senior Citizens in a GC Apartment..

Table – 6

Results of Linear Multiple Regression Analysis – Effect on overall satisfaction of the Gated Community Senior Citizens

To understand the effect of independent variables on the dependent variable namely overall satisfaction among Gated Community, Linear Multiple Regression model was employed.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.802 ^a	.662	.130	.83721

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68.218	19	3.590	5.122	.000 ^a
	Residual	353.965	505	.701		
	Total	422.183	524			

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	4.156	.425		9.778	.000
	1. Elevator (lifts)	-.057	.060	-.044	-.947	.044*
	2. Covered car park	-.089	.060	-.071	-1.481	.039*
	3. RO water (TDS 100 or below)	-.083	.053	-.077	-1.559	.120
	4. 24 hours security	.125	.051	.127	2.454	.014*
	5. Gen set power (uninterrupted power 24 hrs)	-.067	.060	-.067	-1.119	.264
	6. Centralized gas supply by piping system	-.073	.050	-.077	-1.463	.144
	7. Play area for children	.083	.050	.081	1.655	.099
	8. GYM	-.018	.050	-.020	-.356	.022*
	9. Intercom to all neighbors and security	.062	.047	.066	1.313	.190
	10. Swimming pool	-.168	.057	-.127	-2.947	.003*
	11. Garden plants, flowers, landscaping etc.	-.006	.060	-.004	-.106	.016*
	12. Library	.105	.046	.100	2.293	.022*
	13. Club house, all indoor games	.153	.047	.137	3.289	.001*
	14. Bank or ATM nearer to GC	-.051	.049	-.044	-1.052	.093
	15. Sewage water treatment plant	-.017	.049	-.015	-.354	.023*
	16. Cab facility to go to doctor/ shopping / temple	-.056	.045	-.053	-1.254	.210
	17. Support from neighbors	-.249	.045	-.231	-5.486	.000*
	18. As a whole people mind their own business	-.141	.045	-.132	-3.138	.002*
	19. Association functioning - Better control	.081	.046	.076	1.767	.078
a. Dependent Variable: GC apartment is						

It is observed from the above table that significant level of satisfaction is achieved, in many amenities, such as Support from neighbors (0.000), Club house & all indoor games(0.001), Senior Citizens are minding their own business(0.002), Swimming pool(0.003), GYM (0.022), Library(0.022), Sewage water treatment plant (0.023), Covered car park (0.039), Elevator- lifts (0.044), 24 hours security(0.014), Garden plants, flowers, landscaping etc, (0.016).

Also it is observed that there is no significant in the satisfaction level with respect to amenities, Association functioning - Better control (0.078), Bank or ATM nearer to GC(0.093), Play area for children(0.099), Centralized gas supply by piping system(0.144), RO water (TDS 100 or below (0.120)), Intercom to all neighbors and security (0.190), Cab facility(0.210), Gen set power (uninterrupted power 24 hrs) (0.264),

10. Summary of findings:

1. **Senior Citizen Population in Coimbatore:** The ratio of working people and Senior Citizen amounts to 56.8% and 43.2% respectively. Out of 227 Senior Citizens, 72.2% are in the age group 56 -70 years and 27.8% are in the age group of above 71 years. There are 105 men and 59 women (total 164) in the age group 56 -70 years and 40 men and 23 women (total 63) are in the age group of above 71 years.

2. **Supporting Income for seniors:** It is observed majority of the respondents (30.9%) having Interest from deposits. In the One way ANOVA, indicated that there was no significant difference between Gated community and supporting income from other sources of the respondents

3. **Effect on Elder friendly facilities / house design for Seniors:** It is identified that Independent variables provision of ramps, slopes, instead of staircases for easy walk/ wheel chair use (0.000), provision of handles in all required places (Toilets, closer to bed) (0.000) are significantly influencing on senior citizens, whereas access to senior specialty stores (0.146) and Central Kitchen food service – (0.773) are not influencing Elder friend facilities in GC living.

4. **Effect of noise and dust pollution:** As far as effect on noise and dust pollution, there is significant on Total pollution free (0.060) and Absolute silence (0.091) in the selected GC.

5. **Specially designed bath rooms, gardens and black topping the roads:** It is observed that Independent variables namely walking and meeting points (0.010), Garden / Lawn/ Plants with flowers (0.110) Green topping (0.329), Special design to bath attached bed rooms – even floor for wheel chair flow(0.800) are influencing on the dependent variable life style variables for Senior Citizens in a GC Apartment.

6. **Effect on overall satisfaction of the Senior Citizens in Gated Community:** It is observed from the above table that significant level of satisfaction is achieved, in many amenities, such as Support from neighbours (0.000) Library (0.022), Sewage water treatment plant (0.023), Covered car park (0.039), Elevator- lifts (0.044), 24 hours security (0.014), Garden plants, flowers, landscaping etc, (0.016).

Also it is observed that there is no significant in the satisfaction level with respect to , GC Association functioning and better control (0.078), proximity of bank or ATM nearer to GC(0.093), Play area for children(0.099), Centralized gas supply by piping system(0.144), RO water (TDS 100 or below (0.120)), Intercom to all neighbors and security (0.190), Cab facility(0.210), Gen set power (uninterrupted power 24 hrs) (0.264),

11. Conclusion:

As far as Coimbatore GC is concerned, the ratio of working people and Senior Citizen amounts to 56.8% and 43.2% respectively. Out of 227 Senior Citizens, 72.2% are in the age group 56 -70 years and 27.8% are in the age group of above 71 years. There was no significant difference between Gated community and supporting income from other sources of the respondents. The variable of reading newspaper, reading magazines, watching TV and browsing internet have highly influenced by respondents on leisure time utilization. Majority of the seniors are accepting Organic food and switching-over to it is, welcomed. Specially designed bath rooms, gardens and black topping the roads are

preferred by them. . Elder friendly facilities / house design for seniors are warranted by them modern life style Continuous self improvement factors are attempted by them, which makes them enterprising and meaningful and they become people of 'Progressive Thinking'. Acceptance of 'Centralized Kitchen' is seen with many of the seniors and they have overall satisfaction many of the amenities provided by the developers and they require some more amenities, which is addressed by the Associations or Promoters in any Gated Community.

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