



## COMPARATIVE STUDY BETWEEN MALAYSIA AND NIGERIA FORMAL LOW COST HOUSING POLICY ISSUES

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### ABSTRACT

*The current practice housing policies of Malaysia and Nigeria did not highlight on the affordability of formal low cost houses. There are no laws, sections or guidelines regulating the affairs of formal low cost housing. The current policies did not consider the beneficiaries of the formal low cost housing in their design; the design reflects the western culture which is not tantamount to that of the beneficiaries. It did not conform to their culture, family background and size. The current practice policies of Malaysia and Nigeria did not consider the family issues of the low income earners and did not provide for public participation in their deliberations contrary to the need of the beneficiaries. This study establishes that participation in policy deliberations will make them feel self-worth. The beneficiaries want incentives to improve their earnings. This study shows that formal low cost houses in Batu Pahat, are affordable while those in Bauchi, are not affordable. Formal low cost houses are located in the same neighborhood with medium and high cost houses in Batu Pahat and enjoy all facilities, utilities and services there. The situation is not the same in Bauchi, where formal low cost houses are located separate at the peripheries of the town outside trekking distances which repel beneficiaries because of the awkward location. The residents of the formal low cost houses Batu Pahat, have higher qualification, higher earnings, less number of dependants, while those at Bauchi, have higher number of dependants, lower income, lower qualification. This study further ascertained that the interplay of these three intangible socio economic elements is the major impediment that blocks affordability. The policy makers and the residents submit that these affordability elements should be upheld in order to ensure formal low cost housing possession by the low income earners. This article further ascertained that the intangible socio economic elements play more role than the physical or tangible elements.*

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**Keywords:** Affordability, Low cost housing, Housing policy, Policy makers & low income earners

## INTRODUCTION

Malaysian housing programs have focused largely on the eradication of poverty and restructuring of the society through the integration of the various ethnic communities. The government has provided a housing policy to keep pace with Malaysia's rapid economic growth (Ezeanya, 2004). Performance of private inventors converted to be more important and caused the realization of a review team on housing and construction between public and private segments. As the population increased, housing programs in urban areas were further accelerated with Vision 2020, an idea introduced in 1998 by the Prime minister; Dr. Mahathir Mohammad. Nigeria has developed and implemented a number of housing policies and strategies, in an attempt to address the housing situation of its citizens, particularly the low-income groups (LIGs). Consequently, a fatal failure of the public housing schemes to house Nigerians occurred (Drakkis-Smith, 1981; Agbola, 1990; Awotona, 1990; Ogunshakin and Olayiwola, 1992; Okpala, 1992; World Bank, 1993; Pugh, 1994a; Ogu, 1999; Ikeojifor, 1999b; Ogu and Ogbuozobe, 2001).

Nigeria have taken the directives dictated by the international agencies most especially the World Bank, to refrain from direct role in housing and adopt market driven policies (World Bank, 1993; Sandhu and Aldrich, 1998). The World Bank condemn the strategy on the grounds of its likely deepening of exclusionist trends it would further generate on the poor and LIGs in the developing countries (Baken and Van, 1993; Ortiz, 1996; Mukhija, 2004). However, the Organized Private Sector (OPS) are recognized to have much attention to housing the upper-and medium-income groups discounting the LIGs and generally display the tendency of profit maximization (Ikeojifor, 1997; Keivani and Werner, 2001a; Aribigbola, 2008). Slum dwellers in the world have increased from 715 million in 1991 to 913 million in 2001, and to 998 million in 2005. Forecasts to 2020 submit that the sphere will have about 1.4 billion shantytown occupants. Definitely, if the number of shantytown occupants is growing yearly, it appears somewhat that finest accomplished housing policy is quiet lacking (UNHDP, 2006). Government officials are relatively limited in the number of policy supported actions they are able to take in supporting the housing needs and aspirations of their citizenry.

## LITERATURE REVIEW

### Perception of Housing Policy

Policy means Plan of action, statement of aim and ideas, especially one made by a Government, political party, and business company. Policy is extremely difficult to define with any precision; the term is used to depict those parameters shaping acts and strategic moves that direct an

organization's essential resources towards perceived opportunities in a changing environment (Bauer and Gergen, 1968). Policy is designed to give direction, coherence and continuity to the courses of actions (Litchfield, 1978). Housing policy can be defined in terms of measures designed to modify the quality, quantity, price, ownership and control of housing (Malpass and Murie, 1994). Housing policy is the implementation mechanisms to make a fundamental switch from a concern about housing as an output to housing inputs (Van, 1986). In terms of government responsibilities in delivering adequate shelter, paragraph 61 of the UN-Habitat (2005) cited to wit: "All governments without exception have a responsibility in the shelter sector, as exemplified by their creation of ministries of housing and agencies, by their allocation of funds for the housing sector, and by their policies, programs and projects.

The provision of adequate housing for everyone requires action not only by governments, but by all sectors of the society including the private sectors, non-governmental organizations, communities and local authorities, as well as partner organizations and entities of the international community. Within the overall context of the enabling approach, Government should take appropriate actions in order to promote, protect and ensure the full and progressive realization of the right to adequate housing". The scarcity of housing also causes bulge prices, making problems in the supply of affordable housing. However, deficiency is not only intense as most poor people do not live in poor areas and most of the people who live in these areas are not the real poor's (UN-Habitat, 2005). Subsidies by government were needed, but the high initial subsidies, required to launch the standard housing, fell quite fast and most stocks throughout the country proved to be self-supporting (UN-Habitat, 2005). Housing policy lead to house provision through a simple process of integrating supply and demand.

### **Lean Salary Recipients**

Low Income Earners are that segment of the society whose income is not sufficient to buy a calorie of group of foods that would meet the basic nutritional needs of the members of the household. The income is also not enough to meet other basic necessities such as clothing, rent, fuel and utilities, transport and communications, medical expenses, education and recreation, and on a broader sense, housing (UNESCO, 1998; Jayanath, 2010). Low income earners have greatest family size because of incessant marriages attached to respective beliefs, family relatives depending woefully on them who bear the same notion and mission (Ogu and Ogbuozobe, 2001).

### **Idea of Affordability**

Affordability is not restricted to housing alone; it encompasses other basic household costs (Burke, 2004). There are rental affordability, existing and future home affordability (New Zealand, 2004). Household that spent more than 30% of its annual income on housing, that household has Affordability problem (Hulchanski, 1995). Ability of a household to pay for housing without feeling the worries (Glaser, 2003). Acquire a standard housing without imposing unreasonable

burden on the household income (MacLennan & Williams, 1990). Smart Home Design enables different people to live a better life (Dewsbury, 2001). Facilitate Matching of Design to user the needs (Curry, 2001). Low income earners prefer to build houses in their own design and locate close to relatives (UNESCO, 1998). Family Ties and Home production are closely entrapped (Wally, 1993). Adapt culture in new site and situations (Scott & Tilly, 1982). Homeowners often have more freedom in decorating, landscaping, and may build equity in their homes (First Trust Mortgage, 2012). Children of Homeowners perform better at schools; have less behavioral problems, have better chance of maintaining property and are the better citizens (Haurin, 2002).

**Table-1.** Summary of Relevant Literatures on Housing Policy Issues

	Authors	Year	Findings
1	UNHDP	2006	Best Housing Policy is still deficient
2	UN Habitat, Istanbul & New York	1996, 2000	Equal access to adequate, accessible
3	Ezeanya	2004	Policy pace with economic growth
4	Ikeojifor	1997	NHP focus on Upper/ Medium class

**Basis:** Ground Survey, 2012

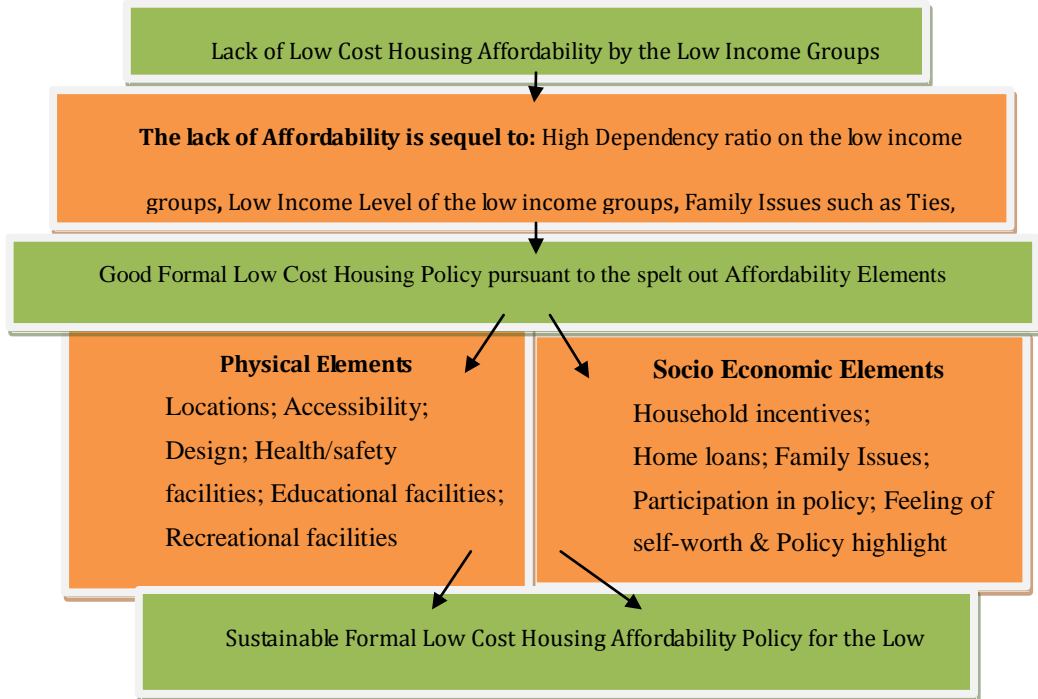
### Hypothetical Structure of the Study

It is factual that some LIGs have restricted earnings. Most of them have family burden that is not commensurate to their earnings and they have no capital source to establish another means of livelihood as a compliment to their lean income. The dependency ratio apart from being high, is marred with family issues such as ties, ethics and race. Ties relates to the link and bond that exist between family members, ethics tells the morality and cultural beliefs, while race respect the rivalry of their culture. This pathetic gap can be bridged by engaging the low cost housing policy elements in housing provision aspect. These elements are the basic features, essentials and the fundamentals which once incorporated into new policies for low income housing will definitely ensure affordability. However, the elements are further splited into physical and socio-economic elements (see figure 1).

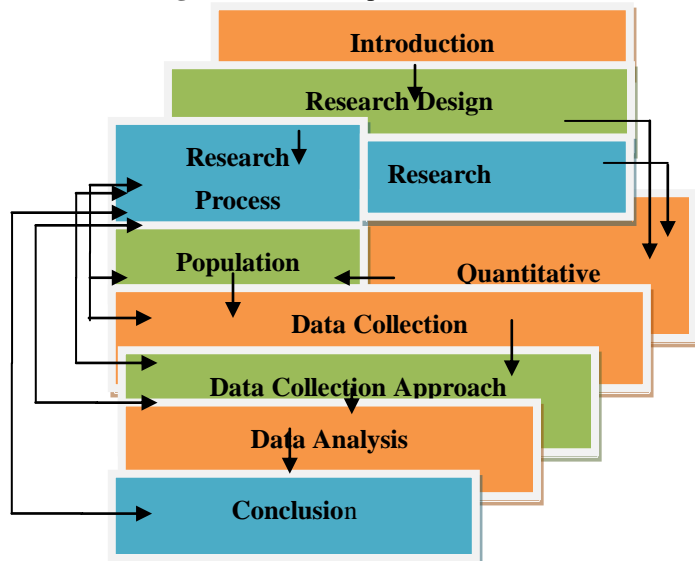
### METHODOLOGY

This study implored quantitative approach to determine the relationship between affordability elements (independent variables) and the formal low cost housing (dependent variable). Numerical investigation strategies may be expressive or investigational (themes measured earlier). A expressive study creates only suggestions between variables. An experiment establishes evaluated relationship between policy and its implementation, housing delivery, correlation between housing and the factors impeding housing delivery, affordability of the low cost housing units by the LIGs, interplay of socio-economic elements, and sustainability of the housing policies. Figure 2 below show the flow of the research methodology.

**Figure-1.** Theoretical Framework



**Figure-2.** Research procedure stream



## Respondents of the Study

The respondents of this study are policy makers and the residents of the formal low cost housing estates of Batu Pahat, Malaysia and Bauchi, Nigeria who cannot afford the low cost housing units because of the interplay of the elements that determines their affordability.

## Population of the Study

The population for this study in Batu Pahat is 1360 formal low cost housing units and 33 policy makers (Majlis Perbandaraan, Batu Pahat). Therefore, 402 samples were taken at Batu Pahat and 30 samples for the policy makers (Krejcie and Morgan, 1970). Similarly, the population of the formal low cost housing in Bauchi is 1190 and the sample taken is also 402, while Policy makers in Bauchi are up to 30 and so, 30 respondents were taken as the sample (Krejcie and Morgan, 1970). The total population in the whole study area is 2613 (See table 2).

**Table-2.** Population & Number of Respondents

S/n	Population	Policy makers	Residents	Total	%
1.	Batu Pahat	33	1360	1393	100
2.	Bauchi	30	1190	1220	100
3.	Total Population of The Study			2613	100

**Source:** Field survey, 2012

## Questionnaire Survey

In the questionnaire survey conducted within 4 months, 864 questionnaires were distributed at Batu Pahat and Bauchi respectively, 731 (84.60%) questionnaires were gladly returned while out of the 864 questionnaires administered, 133 (15.39%) questionnaires were not returned. A total of 402 questionnaires were distributed at the formal low cost houses in Batu Pahat, Malaysia. Out of the 402 questionnaires, 297 have been returned while 105 questionnaires were not returned. However, there were 33 policy makers in Batu Pahat (Batu Pahat Municipal Council, 2012). Sample of 30 respondents was taken among the policy makers (Krejcie and Morgan, 1970). In Nigeria, free response open ended questionnaire was used for the policy makers while closed ended questions were used for the beneficiaries. A formal standardized questionnaire is a survey instrument used to collect data from individuals about themselves, or about a social unit such as a household, a housing unit, or a school. A questionnaire is said to be standardized when each respondent is exposed to the same questions and the same system of coding responses (Crawford, 1990). Accordingly, 402 questionnaires were distributed at Bauchi, Nigeria at the formal low cost housing estates out of which 379 questionnaires were returned, 23 were not returned. Equally, 30 questionnaires were distributed among the policy makers at Bauchi all of which were gladly returned only one is not returned (see table 3).

**Table-3.** Investigation methods used in achieving objectives of the study

Objectives	Technique
To investigate current practices of FLCH in Malaysia and Nigeria	Descriptive statistics
To evaluate affordability elements of FLCH in Malaysia/Nigeria	Logistic Regression
To compare affordability elements of FLCH in Malaysia/Nigeria	T - Test

## ANALYSIS

### Data Analysis Methods

This study used three different techniques in achieving the objectives of the study. Descriptive statistics is used for objective one, regression is used for the second objective while t – test was used in comparing the affordability elements in objective three. Table 4 below shows the techniques used in achieving the spelt out objectives of this study.

### Data Consistency Analysis, for Policy Makers, Batu Pahat

Reliability analysis for the data set of the policy makers, Batu Pahat was conducted using the Cronbach's Alpha and is duly significant (see table 4). Table 4 shows the mean, variance and standard deviation conducted on 38 variables.

**Table-4.** Consistency Indicators

Cronbach's Alpha	Variables
.635	38

Source: SPSS Logistic Regression Analysis Technique

### Data Consistency Analysis for the policy makers, Bauchi, Nigeria

Cronbach's alpha regulates the inner steadiness or regular relationship of variables in a study tool to scale its consistency. It was run on the data set for the policy makers, Bauchi, Nigeria and the value is excellent and hence significant (0.949), see table 6. The average is 66.23, variance 21.305 and the standard deviation is 4.616 (see table 5).

**Table-5.** Measure Statistics

Mean	Variance	Normal Deviation	Variables
66.23	21.305	4.616	38

Source: SPSS Logistic Regression Analysis Technique

**Table-6.** Consistency Indicators

Cronbach's Alpha	Variables
.949	38

Source: SPSS Logistic Regression Analysis Technique

**Table 7.** Consistency Indicators

Cronbach's Alpha	Variables
.901	59

Source: SPSS Logistic Regression Analysis Technique

**Table 8.** Model Brief

Model	r	r Square	Adjusted r Square	Normal Error
1	.879 <sup>a</sup>	.773	.716	.245

Source: SPSS Logistic Regression Analysis Technique

### Data Consistency Investigation for the Background of respondents, Batu Pahat, Malaysia

Reliability analysis conducted on the data shows that the data is significant and excellently reliable (see table 7). Table 8 shows the r – square of the data whose value is 0.773 is very significant (see table 8). The strength of the relationship is indicated by the correlation coefficient: r but is actually measured by the coefficient of determination:  $r^2$ . Smaller samples produce strong correlation and more significant relationship. However, the larger the correlation coefficient the stronger the relationship between the variables. Equally, a relationship can be strong and yet not significant. In the same vein, a relationship can be weak but significant; the key factor is the size of the sample. The mean square has 0.811 as its value for the regression run on the data; table 9 and 10 shows the distribution.

**Table-9.** Measure statistics

Mean	Variance	Std. Deviation	Variables
196.26	557.549	23.612	59

Source: SPSS Regression Analysis Technique

**Table-10.** Analysis of the Variance

Model	Sum of Squares	Degree of freedom	Mean Square	Sig.
Regression	47.029	58	.811	.000 <sup>b</sup>

a. Dependent Variable: FLCH

Source: SPSS Regression Analysis Technique

**Table-11.** Consistency Indicators

Cronbach's Alpha	Variables
.910	59

Source: SPSS Regression Analysis Technique



**Table-12.** Measure Statistics

Mean	Variance	Normal Deviance	Variables
160.10	950.945	30.837	59

Source: SPSS Regression Analysis Technique

### Data Consistency Analysis of the Background of the Respondents, Bauchi, Nigeria

Reliability analysis run on the data for the residents of the formal low cost houses, Bauchi, Nigeria, the Cronbach's alpha has the value of 0.910 which is excellent and hence significant (see table 11). The mean, variance and standard deviation is shown in table 12. The coefficient (0.702) is significant for the regression run on the data for the residents of the formal low cost housing estates, Bauchi, Nigeria and is shown in table 13. The strength of the relationship is indicated by the correlation coefficient:  $r$  but is actually measured by the coefficient of determination:  $r^2$ . Smaller samples produce strong correlation and more significant relationship. Equally, a relationship can be strong and yet not significant. In the same vein, a relationship can be weak but significant; the key factor is the size of the sample. The value of the mean square (0.897) which is significant for the regression analysis run on the data set for the residents of the formal low cost housing estates, Bauchi, Nigeria.

**Table 13.** Model Brief

Model	r	r Square	Adjusted r Square	Normal Error
1	.838 <sup>a</sup>	.702	.648	.263

Source: SPSS Regression Analysis Technique

**Table 14.** Analysis of the Variance

Model	Figure of Squares	Degree of freedom	Mean Square	F	Significant value
Regression	52.009	58	.897	12.998	.000 <sup>b</sup>

Source: SPSS Regression Analysis Technique

**Table-15.** Comparison for policy makers, on the current Housing policy issues

Elements	Mean	Std. Dev.	Std. Error	Relationship
Policy highlight on Affordability	1.77	.430	.084	Significant
Lack of LCH affordability	1.38	.496	.097	Significant
Guidelines on development	1.23	.430	.084	Significant
Laws on affordability	1.54	.508	.100	Significant
	1.77	.430	.084	Significant
	1.42	.504	.099	
	1.77	.430	.084	Significant
	1.38	.496	.097	

Source: SPSS T – Test Statistics

**Table-16.** Paired Samples Relationships for Policy makers, on the current policy issues

Elements	Relationship	Significance	Remark
Policy highlight on Affordability	.058	.779	Highly Related
Lack of LCH affordability	-.225	.268	Highly Related
Guidelines on development	-.085	.679	Highly Related
Laws on affordability	.058	.779	Highly Related

Source: SPSS T – Test Statistics

### Comparison for Policy makers, Malaysia & Nigeria on the current policy issues

T - Test paired sample statistics was run on the data sets for the policy makers of Batu Pahat, Malaysia and Bauchi, Nigeria. Table 17 displayed the results of the paired samples statistics for policy makers, Malaysia & Nigeria. Perusal of the outcome indicates that there is a significant relationship between the paired variables because the mean values of all the distribution is greater than the values of its standard deviation signifying an acceptable result. The result indicates that there is a significant relationship between the paired variables.

**Table-17.** Comparison for Policy makers, on the current policy issues

Elements	95% CID		t	Degree of freedom	Sig. (2) Tailed
	Lower level	Upper level			
Highlight on Affordability	.127	.642	3.077	25	.005
Lack of LCH Affordability	-.605	-.010	2.132	25	.043
Development Guidelines	.068	.625	2.560	25	.017
Laws on Affordability	.127	.642	3.077	25	.005

Source: SPSS T – Test Statistics

### Paired Samples Relationships for Policy makers, Malaysia & Nigeria on the current policy issues

The correlation coefficient is used to indicate the relationship between two random variables. It offers a degree of the strength and bearing of the relationship ranging from -1 to +1. Positive values indicate that the two variables are positively associated. Negative values designate that the two variables are negatively associated, denoting contrary relationship. Figures between +1 or -1 disclose highly relationship. Table 18 display the result of the paired samples correlation run on the data sets of the policy makers of both Malaysia and Nigeria.

**Table-18.** Comparison for Policy makers Malaysia & Nigeria on the physical elements

Elements/Variables	Mean	Std. Dev.	Std. Error	Relationship
Pair 1 I like the location of this house	3.87	.838	.049	Significant
	3.06	1.713	.099	
Pair 2 I like the design of this house	3.68	1.094	.063	Significant
	3.00	1.440	.084	
Pair 3 We have good roads	3.77	.962	.056	Significant
	2.31	1.176	.068	
Pair 4 We have clinic	2.67	1.240	.072	Significant
	2.41	1.284	.075	
Pair 5 We have school	2.86	1.350	.078	Significant
	2.98	1.261	.073	
Pair 6 We have playing field	3.56	1.259	.073	Significant
	2.89	1.369	.079	

Source: SPSS T – Test Statistics

The result values ranges from -0.365 – 0.316. The positive values (0.316) indicate that the elements having these values are positively correlated, meaning that the two variables vary in the same direction. The negative values (-0.365) indicate that the elements having these values are negatively correlated, meaning that the two variables vary in the contrary or opposite direction. The positive values indicate that the two variables are positively correlated, so policy highlight on affordability and laws on affordability of Malaysia & Nigeria vary in the same direction. The negative values indicate that the two variables are negatively correlated, so, lack of low cost housing affordability and guidelines on development of Malaysia & Nigeria vary in the contrary or opposite direction. Values close to +1 or -1 reveal that the two variables are highly related.

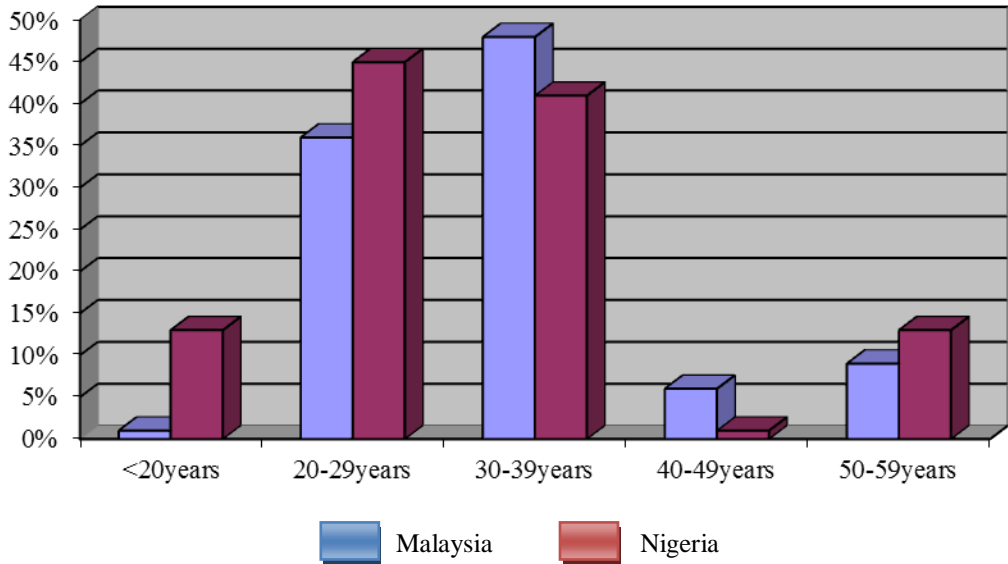
### Background of Residents, Batu Pahat, Malaysia and Bauchi, Nigeria

Descriptive statistics is the technique used to analyze the background of the respondents. The residents of the formal low cost housing Batu Pahat, Malaysia accomplish objective 2 of this study. Background of the respondents is absolutely important in this study in that it determine their capability to afford the low cost houses or otherwise. Figure 3 shows the age distribution of the background of the respondents in Malaysia and Nigeria.

### Discussion on the Background of Residents Malaysia and Nigeria

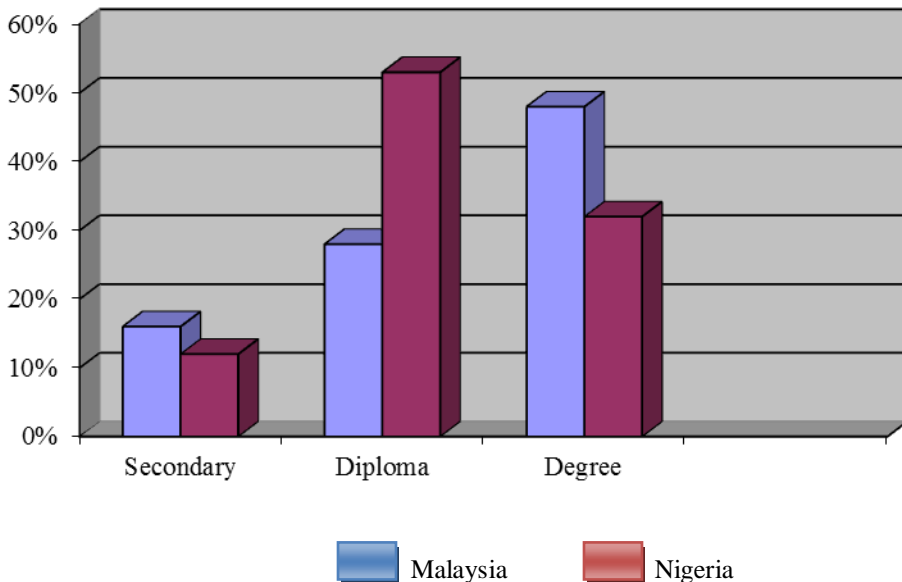
The active age group ranges 30-39 were up to 142 respondents representing 48% in Malaysia while it is 155 respondents representing 41% in Nigeria. This is followed by 108 respondents between 21-29 years representing 36% in Malaysia and 173 respondents representing 45% in Nigeria. The other range 50-59 has 27 respondents representing 9% while 50 respondents representing 13% belong to this group in Nigeria Malaysia has the highest active age group while Nigeria has the highest dependent age group.

**Figure-3.** Age of residents of FLCH Malaysia & Nigeria



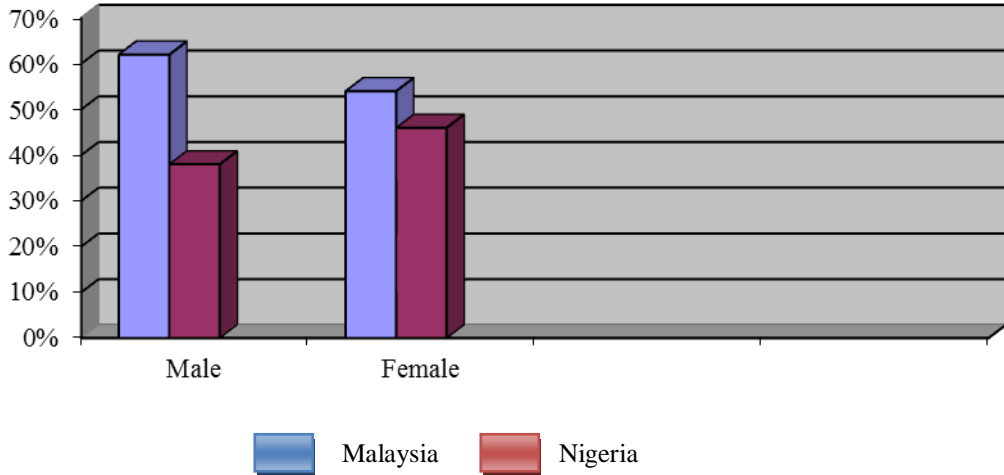
Survey conducted on the residents shows that 152 residents of Batu Pahat Malaysia representing 48% have Degree while 198 residents of Bauchi Nigeria representing 53% have Diploma. This ascertained that residents in Malaysia have higher qualification than the residents in Nigeria. This can therefore give them broader opportunity of affording the FLCH than their contemporaries at Nigeria. 16% of the respondents in Malaysia have secondary certificate while only 12% respondents have secondary certificate in Nigeria (Refer to Figure 4).

**Figure-4.** Qualification of residents of FLCH Malaysia & Nigeria



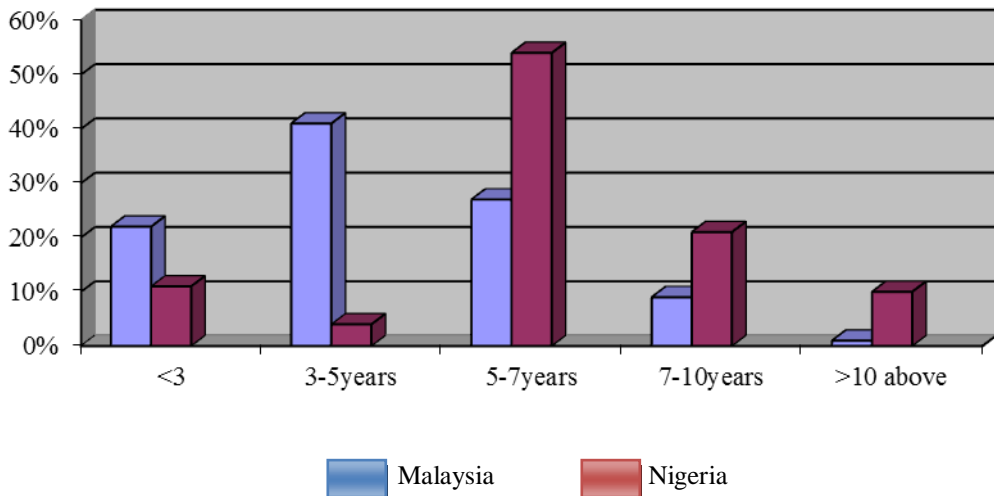
There are 183 residents representing 62% males and 113 females representing 38% in Malaysia respectively. In Nigeria, 205 respondents representing 54% are males while 158 residents representing 46% are females (Refer to Figure-5). 122 of residents in Malaysia representing 41% have 3–5 dependents. In contrast, 203 respondents representing 54% in Nigeria have 5-7 dependents. This means that Malaysians have less number of dependents (Refer to Figure-6).

**Figure-5.** Sex of residents of FLCH Malaysia & Nigeria



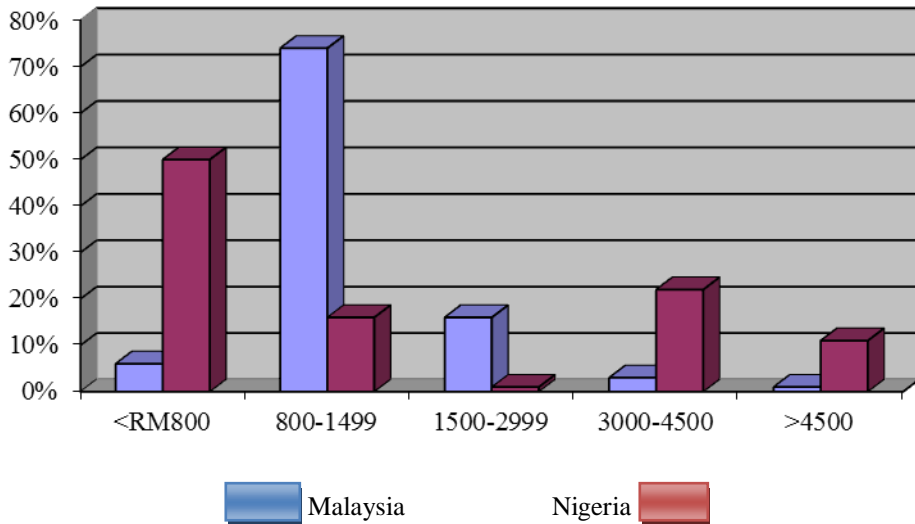
Invariably, residents of Batu Pahat have less treasure on spending while Nigerians have higher dependents and have higher treasure on spending. This confirms that Malaysia have better chances of affording FLCH because they have less dependents, higher qualification and higher earning. The reverse is the case of the residents of FLCH Bauchi, Nigeria.

**Figure-6.** Number of Dependents on residents of FLCH Malaysia & Nigeria



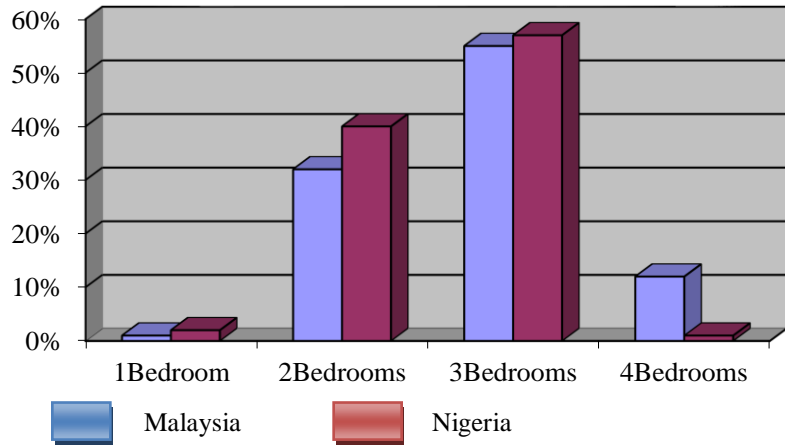
Survey conducted reveals that 74.7% representing 222 of the respondents in Malaysia earn between RM800-1499; followed by 16% representing 46 respondents earn between RM1500-2999 only 6% representing 18 respondents earn less than RM800; 3% representing 10 respondents earn between RM3000-4500; while 1% earn above RM4500. In Nigeria, 50% representing 193 respondents earn less than RM800.00, 22% representing 83 respondents earn between RM3000-4500, only 16% representing 61 respondents earn between RM800-1499; 1% earn between RM1500-2999 while 11% representing 41 respondents earn above RM4500 (Refer to Figure-7).

**Figure-7.** Income of residents of FLCH Malaysia & Nigeria



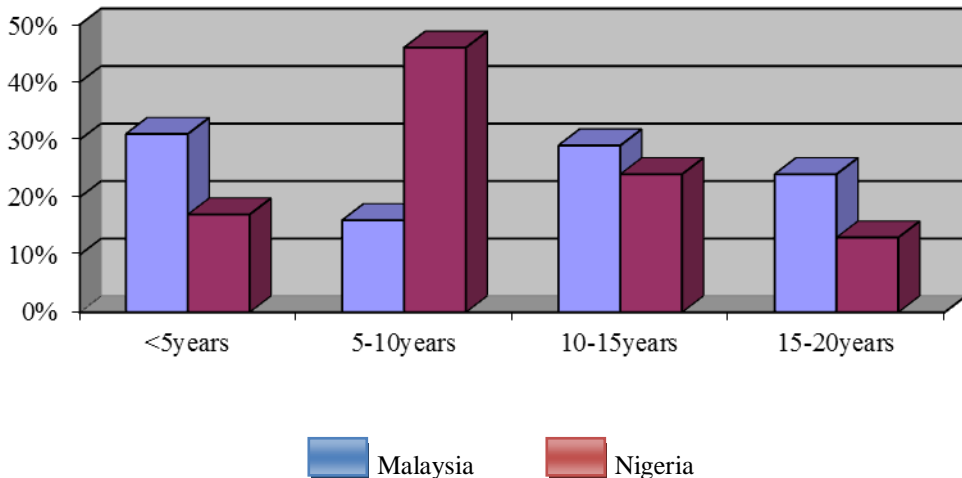
This study discovered from the survey that 74% Malaysian earns higher and that there is no acute disparity between those earning between RM800-3000. But in Nigerian situation, the highest percentage (50%) of the respondents earns less than RM800 and there is a very wide fissure between those earning below RM800 and those earning RM3000-4500. In essence, Malaysia have bridged the frightening gap between the low income earner and the high income earners, the reverse is the situation in Nigeria. Number of bedrooms in FLCH Malaysia & Nigeria, according to the survey conducted, 55% representing 165 residents in Malaysia occupies 3 bedrooms while 57% representing 214 residents in Nigeria occupies 3 bedrooms also. Hence, there is no significant disparity in this segment (Refer to Figure-8).

**Figure-8.** Number of bedrooms in FLCH Malaysia & Nigeria



29% representing 85 residents were occupying their houses for about 15 years. 24% representing 70 residents were occupying their houses for about 20 years. 16% representing 46 residents were occupying their houses for about 10 years. The highest percentage 31% representing 92 residents were occupying their houses for just less than 5 years. In Nigeria, 17% representing 61 residents were occupying their houses for less than 5 years. 46% representing 173 residents were occupying their houses for about 10 years. 24% representing 93 residents were occupying their houses for about 15 years. 13% representing 52 residents were occupying their houses for about 20 years. Objectively, 29% representing 85 residents occupying their houses for up to 15 years shows consistency in Malaysian system while 46% representing 173 residents occupying their houses between 5- 10 years show less consistency in the Nigerian system (Refer to Figure-9).

**Figure-9.** Years stayed in this house, Malaysia & Nigeria



### Comparing Physical Affordability Elements, Malaysia & Nigeria

The result shows that the significant 2 tailed value of location of the houses for all respondents is 0.000 which yielded t – value 7.165. The outcome indicates that there is a significant difference between the elements compared. The resulting level of significance is 0.000 and can be conclude that there is significant difference between the location of FLCH in Batu Pahat, Malaysia and Bauchi, Nigeria. The result displayed shows the degree of freedom which is 296 and the 2 tailed significance value ranges from 0.000 – 1.000. In essence, when the significance (2) tailed value is less than 0.05, there is statistically significant difference between the means compared. Accordingly, when the significance (2) tailed value is 0.001, there exist a statistically highly significant difference between the means compared. The values of the means of the variables compared in table 19 entails therefore, that there is statistically highly significant difference between the physical affordability elements of Batu Pahat, Malaysia and Bauchi, Nigeria. The significant 2 tailed value of design is .000 which yielded t – value 6.800 showing statistically highly significant difference. The significant 2 tailed value of access roads is .000 which yielded t – value 16.415 showing statistically highly significant difference between the roads in FLCH Batu Pahat, Malaysia and Bauchi, Nigeria. The significant 2 tailed value of clinic is 0.010 which yielded t – value 2.587 showing statistically highly significant difference. The significant 2 tailed value of school is 0.253 which yielded negative t – value -1.146 showing statistically significant difference. The significant 2 tailed value of playing field is .000 which yielded t – value 5.819 showing statistically highly significant difference. Provision of schools varied in Malaysia and Nigeria with no highly significant difference (Refer to table 19).

**Table-19.** Physical elements, Malaysia & Nigeria Compared

Elements	95% CID		t.	Degree of freedom.	Sig. (2) Tailed
	Lower level	Upper level			
I like the location of this house	.586	1.030	7.165	296	.000
I like the design of this house	.486	.881	6.800	296	.000
We have good roads	1.289	1.640	16.415	296	.000
We have clinic	.062	.456	2.587	296	.010
We have school	-.329	.087	-1.146	296	.253
We have playing field	.441	.892	5.819	296	.000

Source: SPSS T – Test Statistics

### Comparing Socio Economic Elements, Malaysia & Nigeria

The significant 2 tailed value of policy highlight on affordability is 0.000 which yielded t – value 18.815 showing statistically highly significant difference. The significant 2 tailed value of Participation in policy meetings is 0.318 which yielded t – value 1.001 showing statistically



significant difference. The significant 2 tailed value of highlight on family issues is 0.000 which yielded t – value 16.180 showing statistically highly significant difference. The significant 2 tailed value of home loans is 0.000 which yielded t – value 13.565 showing statistically highly significant difference. The significant 2 tailed value of incentives to improve earnings is 0.000 which yielded t – value 15.681 showing statistically highly significant difference. The significant 2 tailed value of feeling self-worth is 0.000 which yielded t – value -5.455 showing statistically highly significant difference. All the elements show significant positive difference when compared (refer to table 20).

**Table-20.** Socio economic elements Malaysia & Nigeria Compared

Elements	95% CID		t.	Degr ee of freed om.	Sig. (2) Tailed
	Lower level	Upper level			
Highlight on affordability	1.547	1.908	18.815	296	.000
Participation in policy meetings	-.107	.330	1.001	296	.318
Highlight on Family issues	1.147	1.465	16.180	296	.000
Home loans	1.097	1.469	13.565	296	.000
Incentives to improve earnings	1.063	1.368	15.681	296	.000
Feeling self-worth	-.504	-.237	-5.455	296	.000

Source: SPSS T – Test Statistics

### Relationship between Physical Elements for Residents, Malaysia

Positive values indicate that the two variables are positively correlated, meaning the two variables vary in the same direction. Negative values indicate that the two variables are negatively correlated, meaning the two variables vary in the contrary direction. Values close to +1 or -1 reveal the two variables are highly related while values near 0 either + or – indicate weak relationship. The coefficient value of location and design (1 and 0.113) respectively were significant at 0.01 and 0.05 levels (2 tailed). The coefficient value of access roads and health (0.097 and 0.388) respectively were significant at 0.01 and 0.05 levels (2 tailed). The coefficient values of recreation and educational facilities 0.262 and 0.289, respectively was significant at 0.01 and 0.05 levels (2 tailed). Refer to table 21.

**Table-21.** Correlations on Physical elements for Residents, Malaysia

<b>Location</b>	Pearson Correlation	1				
	Sig. (2-tailed)					
<b>Design</b>	Pearson Correlation	.113	1			
	Sig. (2-tailed)		.052			
<b>Access</b>	Pearson Correlation	-.283**	.097	1		
	Sig. (2-tailed)	.000	.094			
<b>Health</b>	Pearson Correlation	.434**	.388**	-.192**	1	
	Sig. (2-tailed)	.000	.000	.001		
<b>Recreation</b>	Pearson Correlation	.001	.262**	.289**	-.058	1

	Sig. (2-tailed)	.982	.000	.000	.320		
<b>Education</b>	Pearson Correlation	.405**	.289**	-.092	.701**	-.048	1
	Sig. (2-tailed)	.000	.000	.115	.000	.411	

\*\*Significant values 0.01 & 0.05 levels (2-tailed)

### Relationship between Socio Economic Elements Malaysia

Pearson correlation coefficient is significant at the 0.01 and 0.05 levels (2-tailed). The coefficient values of participation and home loans 0.045 and 0.436, respectively was significant at 0.01 and 0.05 levels (2-tailed). The coefficient values of incentives and family issues -0.177 and -0.213 respectively were significant at 0.01 and 0.05 levels (2-tailed). Refer to table 22.

**Table-22.** Correlations on socio economic elements, for Residents, Malaysia

<b>Participation</b>	Pearson Correlation	1					
	Sig. (2-tailed)						
<b>House loan</b>	Pearson Correlation	.045	1				
	Sig. (2-tailed)	.436					
<b>Incentives</b>	Pearson Correlation	-.177**	.334**	1			
	Sig. (2-tailed)	.002	.000				
<b>Family issue</b>	Pearson Correlation	-.213**	.106	.559**	1		
	Sig. (2-tailed)	.000	.068	.000			
<b>Esteemed</b>	Pearson Correlation	-.170**	-.017	.365**	.336**	1	
	Sig. (2-tailed)	.003	.769	.000	.000		
<b>Affordability</b>	Pearson Correlation	-.215**	.219**	.718**	.521**	.232**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	

\*\* Significant values 0.01 & 0.05 levels (2-tailed).

The coefficient values of participation and home loans -0.170 and -0.215, respectively were significant at 0.01 and 0.05 levels (2-tailed). Refer to table 22. Refer to table 5.26. Positive values designate that the two variables are positively connected, meaning the two variables vary in the same direction. Negative values indicate that the two variables are negatively correlated, meaning the two variables vary in the contrary direction. Values close to +1 or -1 reveal the two variables are highly connected while values near 0 either + or - designate weak connection.

### Relationship between Physical Elements for Residents Nigeria

Values close to +1 or -1 reveal the two variables are highly connected while values near 0 either + or - indicate weak connection. The coefficient values of location and design 1 and 0.583, respectively was significant at 0.01 and 0.05 levels (2-tailed). The coefficient values of access road and health facility 0.507 and -0.455, respectively was significant at 0.01 and 0.05 levels (2-tailed). The coefficient values of recreation and education facility 0.248 and 0.263, respectively was significant at 0.01 and 0.05 levels (2-tailed). Refer to table 23.

**Table-23.** Correlation on Physical elements for residents, Nigeria

<b>Location</b>	Pearson Correlation	1					
	Sig. (2-tailed)						
<b>Design</b>	Pearson Correlation	.583**	1				
	Sig. (2-tailed)	.000					
<b>Access</b>	Pearson Correlation	.507**	.642**	1			
	Sig. (2-tailed)	.000	.000				
<b>Health</b>	Pearson Correlation	-.455**	-.643**	-.512**	1		
	Sig. (2-tailed)	.000	.000	.000			
<b>Recreation</b>	Pearson Correlation	.248**	.355**	.303**	-.271**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
<b>Education</b>	Pearson Correlation	.263**	.381**	.253**	-.359**	.580**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	

\*\*Significant values 0.01 & 0.05 levels (2-tailed).

### Relationship between Socio Economic Elements for Residents, Nigeria

Pearson correlation coefficient is significant at the 0.01 and 0.05 levels (2-tailed). The coefficient values of participation and home loans 1 and 0.133, respectively was significant at 0.01 and 0.05 levels (2 tailed). The coefficient values of incentives and policy highlight on affordability 0.053 and 0.015 respectively were significant at 0.01 and 0.05 levels (2 tailed). Refer to table 24

**Table-24.** Correlation on socio economic elements for Residents, Nigeria

<b>Participation</b>	Pearson Correlation	1					
	Sig. (2-tailed)						
<b>Loan</b>	Pearson Correlation	.133**	1				
	Sig. (2-tailed)	.009					
<b>Incentives</b>	Pearson Correlation	.053	.390**	1			
	Sig. (2-tailed)	.308	.000				
<b>Highlight</b>	Pearson Correlation	.015	.422**	.702**	1		
	Sig. (2-tailed)	.766	.000	.000			
<b>Family issues</b>	Pearson Correlation	-.020	.369**	.727**	.702**	1	
	Sig. (2-tailed)	.696	.000	.000	.000		
<b>Self-esteemed</b>	Pearson Correlation	.002	.035	.007	-.033	.034	1
	Sig. (2-tailed)	.964	.493	.893	.518	.514	

\*\*Significant values 0.01 & 0.05 levels (2-tailed).

The coefficient values of family issues and self-worth -0.020 and 0.002, respectively were significant at 0.01 and 0.05 levels (2 tailed). Refer to table 24. Positive values indicate that the two variables are positively correlated, meaning the two variables vary in the same direction. Negative values indicate that the two variables are negatively correlated, meaning the two variables vary in the contrary direction. Values close to +1 or -1 reveal the two variables are highly related while values near 0 either + or - indicate weak relationship.

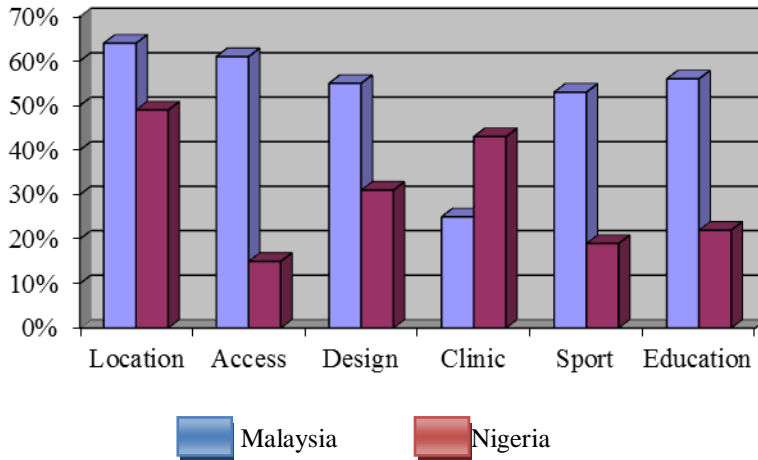
### **Discussion on Background of Residents Malaysia & Nigeria**

The age distribution of the residents in Batu Pahat Malaysia, 47.8% of the residents are between age ranges 30-39 years, while 173 respondents of Bauchi, Nigeria are between age ranges 21 – 29 years representing 45.6%. This result is telling us that households in Malaysia are older than those in Nigeria. The qualification of the residents in Batu Pahat, shows 180 residents representing 60.6% have the highest qualification. The respective qualification of the residents of the formal low cost houses at Bauchi, Nigeria. 198 residents (52.2%) have Diploma which is their highest qualification. Invariably, residents in Malaysia have higher qualification than those in Nigeria and this is also one of the reasons why they afford the formal low cost houses. The gender of the respondents in Batu Pahat, 183 residents (61.6%) are males and 113 are females (38.0%), while 205 (54.1%) males 158 (41.7%) females in Nigeria. In Batu Pahat, Malaysia, 41.1% respondents have highest number of dependants in the range 3 – 5. Similarly, 203 respondents representing 53.6% have number of dependants between 3 – 5 in formal low cost housing Bauchi, Nigeria. Income of residents in Batu Pahat is between RM800 – 1499 while residents in Bauchi earn below RM800. Residents in Batu Pahat, Malaysia have 3 important precedence that permit them to afford the houses than their contemporaries in Bauchi. They have less number of dependants, higher qualification, and higher income.

### **Discussion on Physical Affordability Elements, Malaysia & Nigeria**

The outcome indicates that there is a significant difference between the elements compared. The resulting level of significance is 0.000 and can be concluded that there is significant difference between the location of FLCH in Batu Pahat, Malaysia and Bauchi, Nigeria. In essence, when the significance (2) tailed value is less than 0.05, there is statistically significant difference between the means compared. The values of the means of the variables compared entails therefore, that there is statistically highly significant difference between the physical affordability elements of Batu Pahat, Malaysia and Bauchi, Nigeria. The significant 2 tailed value of design is 0.000 which yielded t – value 6.800 showing statistically highly significant difference. The significant 2 tailed value of access roads is 0.000 which yielded t – value 16.415 showing statistically highly significant difference between the roads in FLCH Batu Pahat, Malaysia and Bauchi, Nigeria. The significant 2 tailed value of clinic is 0.010 which yielded t – value 2.587 showing statistically highly significant difference. The significant 2 tailed value of school is 0.253 which yielded negative t – value -1.146 showing statistically significant difference. The significant 2 tailed value of playing field is 0.000 which yielded t – value 5.819 showing statistically highly significant difference. Provision of schools varied in Malaysia and Nigeria with no highly significant difference. Figure 10 shows the elements compared in histogram.

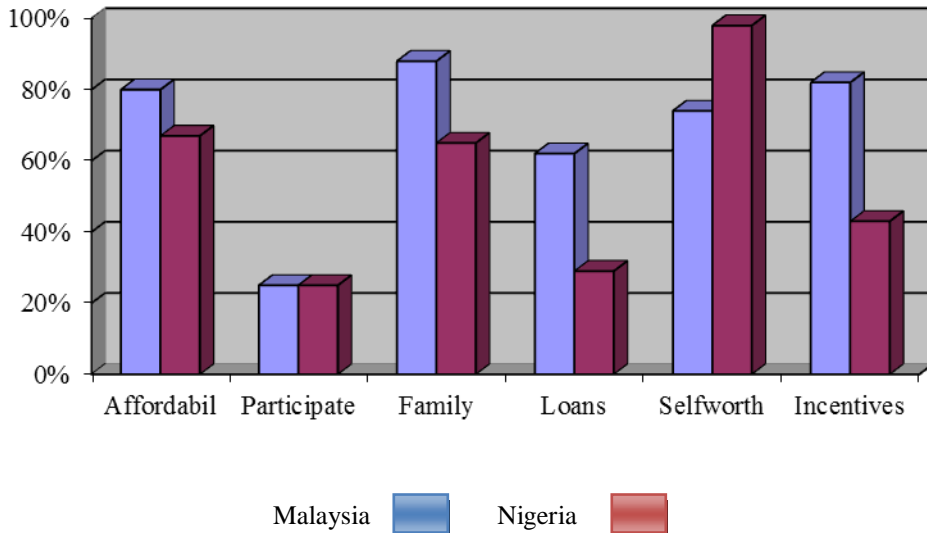
**Figure-10.** Physical affordability elements, Malaysia & Nigeria



**Discussion on the Socio Economic Elements, Malaysia & Nigeria**

There is statistically significant difference between the means compared. The values of the means of the variables compared entails that there is statistically highly significant difference between the socio economic affordability elements of Batu Pahat, Malaysia and Bauchi, Nigeria. The significant 2 tailed value of policy highlight on affordability is 0.000 which yielded t – value 18.815 showing statistically highly significant difference. Refer to figure 11.

**Figure-11.** Socio economic affordability elements, Malaysia & Nigeria



The significant 2 tailed value of Participation in policy meetings is 0.318 which yielded t – value 1.001 showing statistically significant difference. The significant 2 tailed value of highlight on family issues is 0.000 which yielded t – value 16.180 showing statistically highly significant difference. The significant 2 tailed value of home loans is 0.000 which yielded t – value 13.565

showing statistically highly significant difference. The significant 2 tailed value of incentives to improve earnings is 0.000 which yielded t – value 15.681 showing statistically highly significant difference. The significant 2 tailed value of feeling self-worth is 0.000 which yielded t – value - 5.455 showing statistically highly significant difference. All the elements show significant positive difference when compared. Figure 11 shows the elements compared in histogram.

### **Hypothesis Testing**

The hypothesis developed and tested in this study show that the Affordability elements impedes formal low cost housing possession/ownership (if they are not achieved), but where they are substantially achieved, the Affordability elements did not impede formal low cost housing possession/ownership. This implies that the elements shall be accomplished to uphold affordability of the formal low cost houses especially in Bauchi, Nigeria where the socio economic background of the residents is meager, qualification is low, defendants high and these wedge their chances of formal low cost housing affordability.

### **CONCLUSION**

Adequate housing is a basic human right (Article 25 of the General Declaration of Human Rights Act). ‘Equal access to adequate, accessible housing must gradually be ensured for all citizens and their families (UN-Habitat, 1996; UN-Habitat, 2000). The current practice housing policies of Malaysia and Nigeria did not highlight on the affordability of formal low cost houses and hence, did not conform to Article 25 of the General Declaration of Human Rights Act. Furthermore, there are no laws, sections or guidelines regulating the affairs of formal low cost housing. The design reflects the western social attributes which is not tantamount to that of the beneficiaries; it opposed their culture, family background and size. The principle of public participation holds that those who are affected by a decision have a right to be involved in the decision-making process (Principles of Public & Private Participation, 2008). Beneficiaries of the formal low cost housing, hence forth should be allowed to participate in policy deliberations. Outcome of this study shows that those formal low cost houses in Batu Pahat, Malaysia are affordable while those in Bauchi, Nigeria are not affordable. Formal low cost houses are located in the same neighborhood with medium and high cost houses in Batu Pahat, Malaysia and interestingly enjoy all facilities, utilities and services provided at the instance of the high and medium cost houses. The situation is not the same in Bauchi, Nigeria where formal low cost houses are located separate at the peripheries of the town outside trekking distances and residence do not enjoy other facilities because of the awkward location. The residents of the formal low cost houses Batu Pahat, Malaysia have higher qualification, higher earnings, less number of defendants. In contrast, however, those low income earners at Bauchi, Nigeria have higher number of defendants, lower income, lower qualification, which inevitably contribute to their inability to afford the low cost houses among other factors. Finally, the policy makers and the residents submit that these affordability elements should be

maintained in order to ensure formal low cost housing possession by the low income earners. The physical and socio-economic elements must be attained to achieve sustainable affordability for the formal low cost housing in the housing provision aspect.

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