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AN INVESTIGATION INTO THE EXISTENCE OF A RELATIONSHIP BETWEEN THE AGE STAGE DEMOGRAPHIC AND PREFERENCES IN RESIDENTIAL DWELLING

By

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DECLARATION

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

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Date: _____

I hereby declare that the preparation and presentation of the thesis report were supervised in accordance with the guidelines on supervision of thesis reports laid down by Ashesi University College.

Supervisor's Signature: _____

Supervisor's Name: DR. SENA AFI AGYEPONG

Date: _____

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ABSTRACT

This paper investigates the existence of a relationship between the age stage demographic of individuals and their preferences in residential dwelling type. From general observation, it was noticed that, most real estate developers segment their market based on the income level demographic. However, this demographic factor does not cater for individuals who do not receive regular income such as retirees and other unemployed individuals.

This study therefore examined the Ghanaian society and investigated whether or not the preferences of individuals are triggered by their age stages and how this information could be used by real estate developers as an additional tool in segmenting their target markets.

For the purpose of this research data was gathered from both primary and secondary sources. Primary data was gathered from householders within the Adenta municipality in Accra through the use of questionnaires with closed-ended questions. Secondary data was also gathered from existing literature on the subject matter. The primary data was then analyzed quantitatively, and inferences were made.

The researcher concluded that, there is a relationship between the age stage of a householder and their preferred residential dwelling type. As part of the recommendations, the different characteristics of dwelling types that motivated the demand from individuals from different age stages were discussed and these would inform developers as to what elements attract buyer interest from a specific age stage and why they do.

TABLE OF CONTENT

1.0   INTRODUCTION

1.1   CHAPTER OVERVIEW

This study investigated the existence of a relationship between the age stage demographic and preference in residential dwelling-types. It discussed the human life-cycle and the different needs of people at different age stages of the cycle where real developments are concerned, and investigates if there is a relationship between the two variables.

This first chapter takes off by describing the general background of the study. It goes on to state the problem and provides the research questions that will aid in undertaking the study. The research objectives are also stated and the entire scope of the study is defined. It then goes on to state the research method that will be used in the study and the impact that the study is going to have on the society. It ends off by providing the general outline of the thesis.

1.2   BACKGROUND

According to Sengül, Özkan and Purutçuoglu(2010), housing which provides physical sheltering, is one of the basic needs of human beings. According to these authors, it also addresses all needs included in psychologist Abraham Maslow's well-known hierarchy of needs: Psychology, Safety, Belonging, Self-esteem and Self-actualization. They went ahead to define housing as a social, psychological and

emotional place perceived as the tool for individuals to settle down and sustain their existence across generations.

Inferences from Subhan & Ahmad (2012), Heath (2008) and Huang(2000) suggest there are several demographic, social and economic factors that affect the preferences of individuals.

These are expanded in the bullets below as:

- **Personal demographics:** These describe the factors that are as a result of the individual's own personality. These include the age-stage, socio-economic status, gender-social role, personality-values, comparisons, dreams for future etc.

- **Social Issues:** These are as a result of external forces on the life of the individual. These may include neighbours, norms, others' preferences, the shape of privacy-security-social interaction and others.

- **Physical demographics:** These have to do with the physical building itself. These are attributes of the building that can push an individual into acquiring it. Housing quality, housing form, architectural style, interior and outdoor areas are just a few physical influences that can drive a decision as to what to choose as a residential dwelling.

- **Cultural demographics:** As the name suggests, these refer to the influence that culture has on an individual's choice on a residential dwelling.

Reynolds (1997) in her paper states that "wants and needs for housing change over time as events occur that cause adults to re-examine their living environments". Reynolds described such events as being events such as marriage, raising families, career promotion. She goes on to explain that as people grow older, they continue to reassess these choices and make changes accordingly.

The age-stage therefore could be said to be a primary motivator of change within a household; it is what pushes people into making changes in their lives like moving out of their parents' houses, getting married and having children. *Figure 1.1* below is a chart showing the dwelling-types for people at the different stages of the human life cycle.
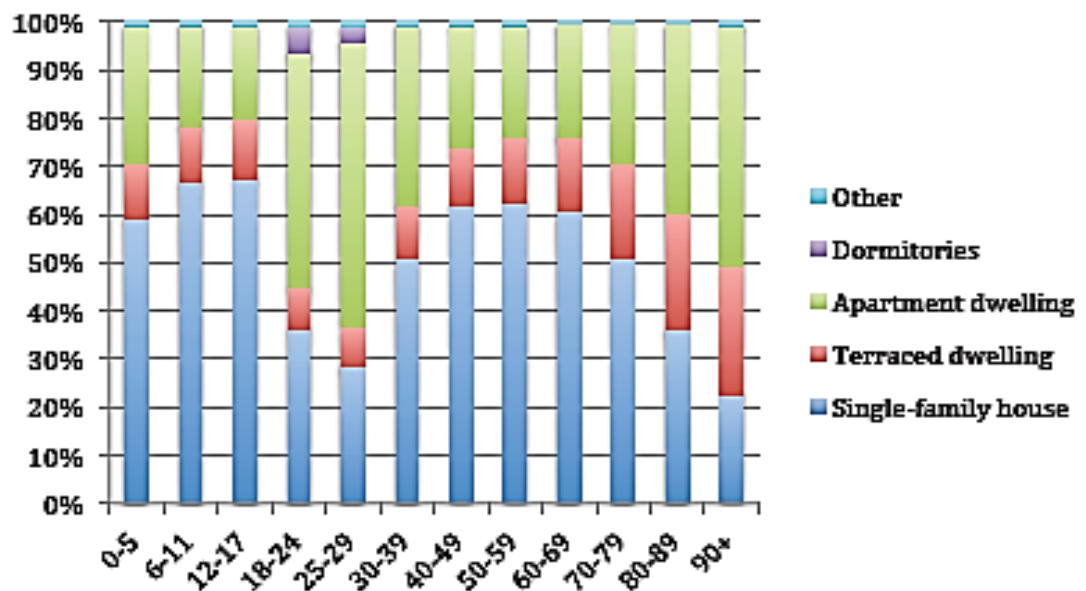

Figure 1.1 Age-groups and dwelling types

Source: (Steffanson, 2012)

From the graph, it can be realized that, between the ages of 0 and 17, people's preferences are skewed to the single-family house dwelling type. From the age of 18 to 29, prefer to live in apartments. These could be either studio apartments or 2-bedroom apartments. After an individual hits 30, their preferences once again lie within a single-family house that could cater for himself and his family. When old age gradually sets in around 70+, the individual then returns to a small studio or 2-bedroom apartment.

Moreover, if it does not, what accounts for this? The question one could ask is whether this pattern is consistent in the Ghanaian context and what accounts for it.

1.3   PROBLEM STATEMENT

Observations from the mode of operation of real estate developers in Ghana suggest that, most of them base their target markets on income levels of people within the society. Therefore, they select a specific group, based on a standard income-level and provide residential space and amenities that they can afford.

This factor however, only takes into consideration, the working class. Individuals within other stages of the potential buyers' human life cycle, like retirees, are not catered for using this demographic factor. Therefore, their stage in life, and the related preferences are not taken into consideration.

The age-stage demographic factor however is another factor that developers can use, in addition to the income level, if they trace out a trend or pattern of what dwelling-type people will be inclined to as has been established by literature from other geographical contexts.

This research therefore seeks to answer the question of how age stage as a demographic factor, affects preference in housing and how this can be used as an efficient additional tool in segmenting a market within the population.

1.4   RESEARCH QUESTIONS

In order to do achieve the above-mentioned objective, there was the need to answer the question:

Does the age-stage of a potential homeowner affect the choice of residential dwelling type?

The following sub questions were also asked, in order to answer the major question:

1. What demographic factors affect the people's preferences in residential spaces?

2. What role does the age-stage of person playing their choice of dwelling?

3. What factors motivate individuals to prefer specific dwelling types?

1.5 RESEARCH OBJECTIVES

Main Objective:

The main objective of this research was to investigate the existence of a relationship between the age stage of individuals and their preferred choice of dwelling types. This information would form a basis for market segmentation, as developers could draw from data sources such as census data and the types and quantity of residential dwelling-types, and identify areas with deficits so the gaps can be filled.

To be able to achieve this, the following specific objectives below were outlined:

1. To establish from existing literature, if there is a relationship between the age stage demographic and choice in dwelling type;
2. To identify the current distribution between the age stage demographic and preference in dwelling types in Ghana;
3. To identify the factors that motivate people to prefer specific dwelling types; and
4. To make recommendations to developers as to the consideration of the age stage demographic in market analysis.

1.6 SCOPE OF THE STUDY

The study generally centered on the topic of housing in Ghana. It covered the types of housing available in Ghana and also discussed the factors that affect housing preferences in Ghana.

The geographical scope of the study was the Adenta Municipality within the Accra Metropolitan area. This area was chosen due to the nature of its proximity to the researcher. The nearness of the area made it easy and more convenient to reach in order to gather data.

1.7   RESEARCH DESIGN

The primary objective for this study was to investigate the effect of age on individuals' preference of dwelling types. According to Joppe (2013), if the objective of a study is to investigate the cause and effect relationship between variables, causal research must be undertaken.

Causality is determined by holding the independent variable and measuring the change that it causes to the dependent variables. In the case of this study, the age-stage was the independent variable while the dwelling-type was the dependent variable. The research was conducted by considering the different age-stages and investigating how changes in the age-stage caused a change in the preference of dwelling-type.

The research findings relied on both primary data and secondary data.

1.8   JUSTIFICATION/IMPACT

For years, most residential investors have targeted their market based on their income levels. However, there are different demographics that can also be used by investors in defining their target markets. These

factors are age-stage, income level, marital status and others, with this paper's focus being the age-stage.

This study is therefore important for real estate investors and developers since the findings can be used as a secondary data source for their market research when targeting a particular market segment. Knowledge of the general age-stage of a specific market allows the developers to have a general idea of the characteristics of houses to build in order to satisfy this market.

Also, seeing as there is very little information on the topic in the Ghanaian context, this research study adds to existing literature available.

1.9 THESIS OUTLINE

Chapter 1 provided an introduction to the study. It included the background, problem statement, research questions and objectives, scope of the study, research method and the justification/ impact of the study.

Chapter 2 provides the conceptual framework of the study. It analyses existing literature on the topic of residential dwelling, both in and out of Ghana.

Chapter 3 lays its emphasis on methodology and the methods that were employed during the study. It describes the available methods of research and reinforces the reasons for selecting the methodology that

was used. It also talks about the methods of data analysis that would be used to interpret the data collected.

Chapter 4 shows the results of the data collection, the collation of these results and then analyzes and interprets them to produce comprehensive conclusions. This information is then compared to the concepts and literature already discussed in chapter 2.

Chapter 5 is made up of the conclusion and recommendations. It concludes on the findings from the research and makes recommendations to different stakeholders as to how this research can be beneficial to them.

2.0   LITERATURE REVIEW

2.1   CHAPTER OVERVIEW

The purpose of this chapter to create a conceptual framework based on which an investigation will be made as to the existence of a relationship between age stage and preferred dwelling type. To be able to achieve this, this chapter has been divided into three different sections: the first of these being a global overview of the concept of housing. This section describes housing on a global level, including some the different dwelling types available. The next section deals with the different demographic factors and how they influence choices in size of residential dwelling. The last section piggybacks on ideas from other research studies to investigate if there is a link between the age-stage demographic factor and preferred dwelling types. This defines the theoretical framework of the thesis.

2.2   THE CONCEPT OF DWELLING

Sometimes being referred to as a "home", a dwelling is defined in Oxford Dictionaries(2010) as a house, apartment or other place of residence where a person or a group of people live in. According to Coolen (2009), dwelling forms the primary anchor for many individuals in the environment and provides some primary functions such as concealment and shelter.

Over the years, it has been established by social researchers that dwelling plays a very important role in the lives of human beings. According to Heblemitoglu, Özkan and Purutçuogl(2010) housing, which provides physical sheltering, is one of the basic needs of human beings and it addresses all the needs included in Abraham Maslow's famoushierarchy of needs.

This hierarchy of needs is often depicted in a triangular form, with the most basic need at the base of the triangle. Below is a graphical representation of Maslow's theory of needs:
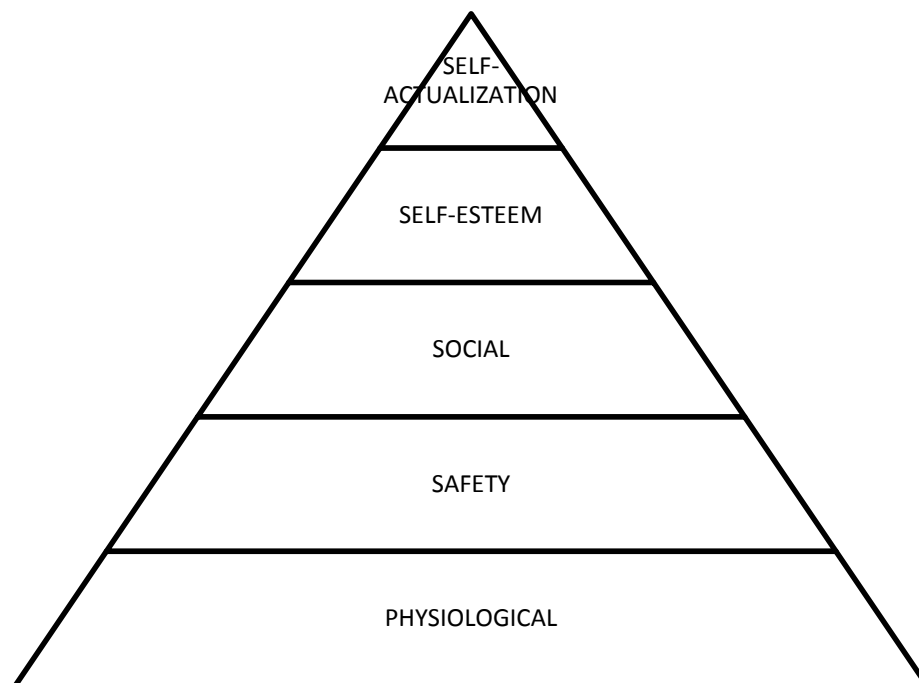

Figure 2.2.1 Abraham Maslow's Hierarchy of Needs

Source: (McLeod, 2007)

According to Maslow's theory, needs move up the hierarchy and individuals always have to start from the bottom before rising up.

Heblemitoglu, Özkan and Purutçuogl(2010) establish that householders at different stages of the hierarchy opt for different features in their preferrences in residential dwelling. Table 2.2.1 by the same authors, shows Demand for specific housing characteristics at various levels of human motivation (Heblemitoglu, Özkan and Purutçuoglu, 2010)

Table 2.2.1: Abraham Maslow's Hierarchy of Needs VS Housing Characteristics

	DIMENSIONS OF HOUSING CHARACTERISTICS		
Hierarchy of needs	**Physical**	**Social**	**Economic**
Physiological	Sound structure offering basic facilities	Location convenient to employment and transportation	Lowest possible cost
Safety/security	Adequate privacy for family unit	Freedom from environmental hazards and uncertainties of rental market	Ability to exercise control over home environment
Belonging	Adequate privacy for each individual	Socially compatible neighbours	Acceptance into a community of other home owners
Esteem	Attractive home design and landscaping	Prestige address	Pride in owning an asset with appreciation potential
Self-actualization	Facilities for vocational pursuits	Proximity to aesthetic cultural and recreational interests	Expression of commitment to specific set of values

Source: (Sengül, Özkan, & Purutçuoglu, 2010)

Table 2.2.1 above describes five different buyers at five different stages of the hierarchy of needs and the characteristics that they look out for when selecting space for a residential dwelling. According to the writers, the group into which any prospective buyer falls depends on his available budget for housing, life experience, family status, and lifestyle aspirations.

From the table it is seen that a person at the physiological stage is more concerned about cost, convenience and just basic shelter. At this stage, the individual looks out for the lowest cost that offers the most convenience for him/her, since it is most likely at the beginning stages of that individual's life.

The second group of people are those at the safety level. At this stage, individuals look to select houses that provide enough privacy for the household and are not easily affected by fluctuating changes in the rental market.

People within the social level of the hierarchy also lay more emphasis on the neighbouring houses. They seek acceptance into the community and so, they choose based on their perceived compatibility with their neighbors and how much privacy they get from their house. In the self-esteem level, buyers buy based on the aesthetic value of the building. They take pride in procuring houses that are located in prestigious locations that would get people within the society to acknowledge and appreciate them. The last stage being the self-

actualization stage mainly deals with fulfillment of one's goals. Therefore, people within this sect often demand for houses that ultimately express their commitment to a selected set of values. At this stage, the householder looks out for nearness to aesthetic, cultural and recreational interests.

Residential dwellings could be categorized based on different characteristics; some of which are: number of rooms, nature of building (detached, semi-detached, story building), geographical location and others. For the purpose of this paper, the size (number of rooms) feature of residential dwellings is going to be used.

2.3 DEMOGRAPHIC FACTORS THAT INFLUENCE CHOICE OF HOUSING SIZE

Demographic trends have a heavy influence on the demand for different types of housing. For the purpose of this research, 4 of these demographics are going to be discussed in full. These factors are the lifestyle, income level, culture and the age stage demographics.

2.3.1 LIFESTYLE

According to Beamish, Goss, & Emmel (2001); when houses are chosen based on the lifestyle demographic factors, it means that they are chosen based on the whole way of living of the individual. In effect, it does not represent the person's choice of furniture or choice of paint but rather the person's particular style of living. According to

the same authors, the lifestyle of individuals could be influenced by factors like household type, social class and housing values.

They describe the household type factor as encompassing issues like age of the householder, type and size of household. The social class factor is also said to include factors like education, income and occupation of the householder. Lastly, the housing values are made up of the values that tie in to that of the household. Examples of economic, family, personal and social values were given by Beamish, Goss, & Emmel (2001). Figure 2.3.1 below, is their conceptual framework for lifestyle influences on housing.
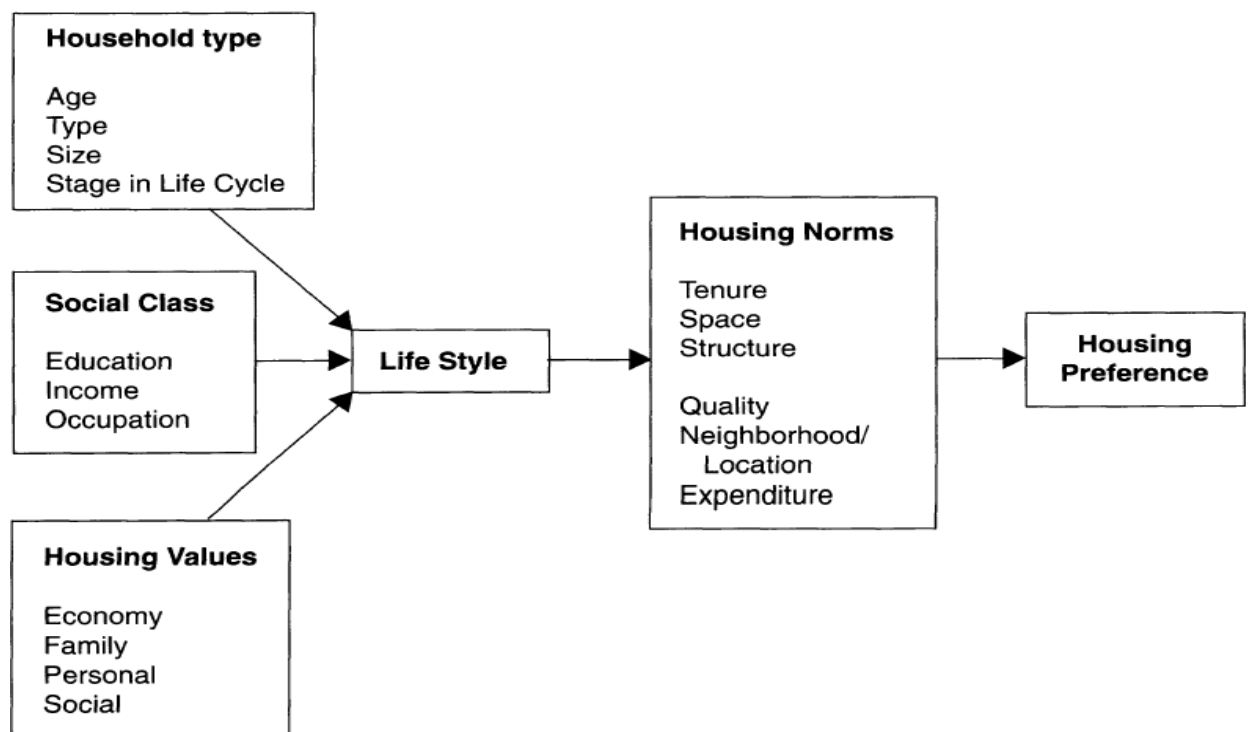

Figure 2.3.1 Lifestyle influences on housing

Source: (Beamish, Goss, & Emmel, 2001)

2.3.2 INCOME LEVEL

Just as a householder's housing preference could be based on their style of living, they could choose a house based on the amount of money that he/she makes at work. The Oxford Dictionary defines income as "money received, especially on a regular basis, for work or through investments" (Oxford Dictionaries, 2010). In the light of this, it could be established that householders whose preferences in residential spaces are influenced by the income-level demographic, choose based on the amount of money they receive as salary or wages.

According to Wright (1979), the income level could be defined by considering the different classes of people. Wright goes on to define these classes as consisting of the lower class, middle class and the upper class, with the lower class consisiting of the poor people; middle class consisting of the middle income people and the upper class being the rich people in the society.

With the above stated point we could then make the link that some people prefer certain types of houses against other houses based on the fact that they can afford them. And this inequality of income gives rise to residential segregation where communities are formed based on the different classes of people.

2.3.3 CULTURE

Coolen and Ozaki(2004) define culture as a "system of inherited conceptions that are expressed in symbolic forms, by which a group of people communicate, perpetuate and develop their knowledge about and attitudes of life." They then go on to establish that the notion of culture offers a clear relationship between the reasons for their preferences for certain features in their dwelling and intentions of using domestic space in certain ways. Building on this point, Dassah(2011) states in her report that "the use of space within and around housing is influenced in several ways by cultural forces". Therefore in a culture that deals mainly with the extended family system, the householder is more likely to prefer a bigger 5 bedroom house when his family is only made up of his wife and one child; since his focus is on the other relations that will be living with them.

Buttressing this point, Lee & Parrott (2004) established that the design and use of houses relect cultural values and ideas of different individuals and therefore, people may have different satisfaction with certain dwelling-typpes according to their cultural backgrounds.

2.4 THE AGE-STAGE DEMOGRAPHIC FACTOR AND ITS RELATIONSHIP TO DWELLING TYPE

According to Reynolds (1997), different events occur throughout people's lives from the early adult stage through marriage, having

children and getting promotions at work. The author goes ahead to establish that as people go through the age-satges, different events continue to occur that cause people to reassess their housing environments. Such events include childern leaving home, hitting the retirerment age and other events that cause a change in the needs and wants of the individual.

Careful consideration of Fig1.1in the introductory chapter shows that individuals for the ages of 0-17 dwell mostly in the single-family house. The rationale here is as a result of them being very young and under the protection of their parents. From the ages of 18-29, the housing distribution is more incline towards apartment dwellings. This is as a result of them coming of age and moving out of their parent's house to go and find their own jobs to fend for themselves. At this early adult stage, most individuals are not married and therefore are by themselves their own household. Therefore considering needs at this stage, the individual has the need to house him/herself only, hence the demand for the studio or 2-bedroom apartment. The ages from 30-60 mark the adult-stage of an individual. At this stage, the average individual has a job, and a family of his own. Therefore the individual will have the need for a bigger residential space that will cater for the entire family, hence the increased demand for single-family house. After the age of 60, the individual reaches retirement and his children also begin to move out of the house to their own residential spaces. With the decline in income-level, the aging of the

individual and the increasing problems with mobility, most people within this stage, go in once again for the smaller apartment dwellings where they easily move around and do not have to stress themselves much with maintenance as compared to the situation in the single family house.

This pattern established, shows the existence of a relationship between the age-stage demographic factor and dwelling-type; and also shows the rationale behind people's choices.

And so, given this theoretical framework, this paper investigates if this relationship applies to the Ghanaian context.

2.5   CHAPTER CONCLUSION

In conclusion, it is evident from literature that the home or a house, is very important in the lives of human beings. Also, the home not only serves the function of being a shelter but also other functions such as providing prestige and also privacy for individuals. There are many demographic factors that affect the choice of housing for individuals and one of these is the age stage demographic. According to the study conducted by Stefansson (2012), there is a relationship between the age stage demographic and preference in residential dwelling type.

3.0   METHODOLOGY

3.1   CHAPTER OVERVIEW

The purpose of this study was to investigate the existence of a relationship between the age stage of individuals and their preferences in residential dwelling types. Information was gathered from individuals of different ages within the Adenta Municipality in Accra. The aim of this investigation was to find out what sort of residential dwelling types that individuals would like to have and what motivates them to make this preference.

This chapter discusses the different variables and the techniques that were used in gathering the data and analyzing it in order to reach a conclusion.

3.2   OPERATIONAL DEFINITION OF VARIABLES

3.2.1 AGE-STAGE

The age-stage of an individual simply refers to the point in the human life cycle that an individual finds him/herself. According to Verne Wheelwright (2011), there are ten stages during the human life cycle. Table 3.2.1 below, shows a table of the different life-stages and their characteristics.

Table 3.2.1 Life stages and their characteristics

LIFE STAGE	CHARACTERISTICS OF LIFE STAGE
Infant	Birth through two years. Dependent, brain developing , learning motor skills and sensory abilities.

LIFE STAGE	CHARACTERISTICS OF LIFE STAGE
Child	3-9 years. Growing and mastering motor skills and language. Learning to play and socialize. Continued growth, formal school and organized activities.
Adolescent	10-19 years. Growth spurs. Puberty brings hormonal changes and reactions. Strong emotions may rule decisions. Behavioral risks.
Young Adult	20-29 years. Completing education and beginning career and family. Potential coping and financial pressures.
Adult	30-39 years. Managing family and career growth. Increasing numbers of couples are starting families in this stage. Continued coping pressures.
Middle Age	40-60 years. First signs of aging and effects of lifestyle; menopause, children are leaving the nest, grandchildren arrive, career peak. Aging parents may require care.
Independent elder	Age 60 onward. More signs of aging and lifestyle effects. Eligible for government provided retirement and health care benefits or private pensions. Retirement discretionary time. some health problems and medications. May care for others.
Vulnerable elder	Optional stage. beginning of frailty, cognitive or multiple health problems. require some assistance. not able to drive. Possible move to Assistance Living
Dependent elder	Optional stage. Require daily care. Unable to perform all personal functions. Possible move to nursing home.
End of Life (Up to six months)	Diagnosed with terminal condition or end stage of disease. May require hospice care, hospitalization or nursing home care.

Source: **(Wheelwright, 2012)**

The age stages that were considered were the young adults, adults, middle age and the independent elders. The middle age was also broken down into two stages (lower middle age and the upper middle age) so that all five stages have an equal age interval. These stages were selected primarily due to the fact that these are the stages where

individuals have their independence and have the ability to think and make decisions for themselves.

The age-stage in this study was the independent variable since it is not affected or influenced by any other variable.

3.2.2 PREFERENCE IN DWELLING-TYPE

According to Steffanson (2012), "preferences are an expression of subjective choices between alternatives". Therefore, given the wide range of dwelling-types available to individuals, their preferences will be those of which meet their requirements. This variable in this research was the dependent variable since it preferences are based on the age-stage of the individuals. Therefore different dwelling-types will be preferred at different age-stages.

3.3 RESEARCH APPROACH

According to Burney (2008), there are "two broad methods or reasonig as the deductive and inductive aproaches". He described deductive reasoning as working from the more general topic before eventually narrowing down to a more specific issue. Inductive reasoning however, is described by Burnley (2008) as working the other way from deductive reasoning. He defined inductive reasoning as moving from specific observations to broader generalization. The Fig 3.1 below shows the steps through which both reasoning approaches could be conducted.

This research made use of the inductive reasoning in order to arrive at a conclusion. It first observed the different trends within the society, traced out a pattern of those trends, and took a stance on the topic before reaching a conclusion as to the existence of a relationship between the above mentioned variables.
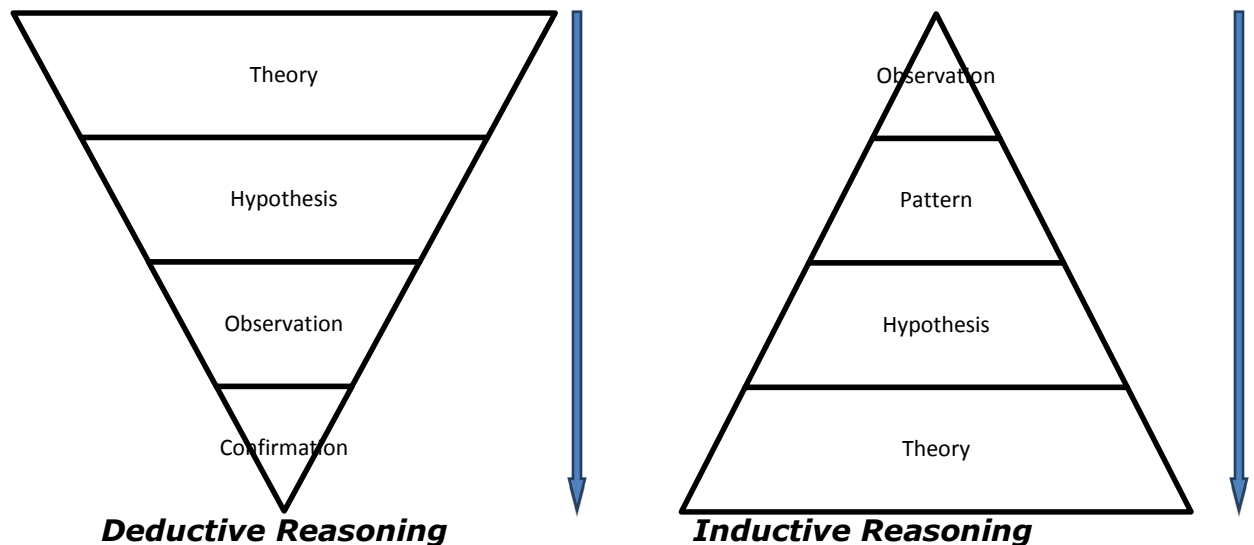

| Deductive Reasoning | Inductive Reasoning |

Fig: 3.1

Source: (Burney, 2008)

3.3.1 RESEARCH STRATEGY

According to Sarantakos (2005), one of the fundamental distinctions in social research is the concept of qualitative versus quantitative research. He goes on to establish that, every research study regardless of their nature and purpose is conducted either qualitatively or quantitatively. However, there are many other types of research

strategies. These include basic research, applied research, causal research, exploratory research and others.

This research study was designed to investigate the relationship between the age stage demographic and individuals' preferences in residential dwelling types, using quantitative techniques. This research made use of quantifiable data in order to be able to draw up charts and graphs that describe the relationship between both variable to be able to establish a conclusion as to whether or not they are both related.

According to Joppe (2013), if the objective of a study is to investigate the cause and effect relationship between variables, causal research must be undertaken.

Causality is determined by holding the independent variable and measuring the change that it causes to the dependent variables. In the case of this study, the age-stage is the independent variable whereas the dwelling-type is the dependent variable. The research will be conducted by considering the different age-stages and investigating how change in the age-stage causes a change in the preference of dwelling-type.

3.4 SAMPLING STRATEGY

3.4.1 POPULATION

The sample will be selected from the population of individuals within the town of Adenta. According to the Ghana Population Census (2010), Adenta has a total population of 78,215 individuals, with about 57% of them making approximately 44,583 individuals, representing the working class.

3.4.2 SAMPLING APPROACH

This research study made use of the non-probabilistic sampling technique known as stratified random sampling. According to Department of Statistics, Yale University (1997), "there may often be factors which divide up the population into sub-groups and we may expect that, the measurement of interest, is to vary among the different sub-populations". In this case, the factor that divide up the population is the age stage demographic. They go on to say that "this factor has to be accounted for when selecting a sample from the population in order to obtain a sample that is representative of the population". In essence, the samples will have to be grouped in different strata based on the factors that divide up the population.

Therefore, for the purpose of this research, the population was segmented based on five different age stages: young adults, adults, lower middle age, upper middle age and the independent elders. As

discussed earlier, the reason for selecting these groups is because of the fact that individuals within these stages have their independence, and make decisions for themselves.

After the segmentation, thirty (30) individuals were selected to represent each of the five (5) groups. This number was selected based on the fact that it would be representative of the population. There will thus be a sample size of exactly 150 individuals within the community.

3.5   SOURCES OF DATA

This research made use of both primary and secondary data. The primary data basically comprised of information gathered from questionnaires that were administered to the individuals. This data served the purpose of informing the researcher on the current preferences of people within the study area.

The secondary data on the other hand comprises of books, journal articles and other published data that provided information on the topic of preferences of individuals with dwelling-types that has already been established in existing literature.

3.6   DATA COLLECTION TOOLS

The data collection tool that was used was a questionnaire. These questionnaires were made up of closed-ended questions. The

questions provided a number of options as responses and required respondents to select the one that closely compared to their opinions.

These helped to gain quantitative data that was used to draw up descriptive charts and helped to establish a distribution pattern of age stage to preferences in dwelling type. This also served the purpose of gathering quantitative data that was used to establish the distribution pattern of age to preference of dwelling-type.

Questionnaires were used due to affordability and flexibility. Considering the large sample size and the stratified sampling method, questionnaires provided a very affordable way of gathering data since it only involved locating the respondents and giving out the questions to be answered.

3.7 DATA ANALYSIS

Data gathered from the questionnaires were analyzed using different tools of descriptive nature such as cross-tabulation, pie charts and stacked histograms. These were chosen since they organize and display the data in a manner that was easy to understand. The SPSS 17.0 software was used in order to generate these graphs and tables. The software analyzed the quantitative data that was gathered from the questionnaires and produced the charts and tables based on the different parameters that were set in the software.

These figures aided in identifying the current trend of preferences of individuals of the different age stages. Therefore, holding all other factors constant, these charts showed how a change in the age stage of individuals affected their preferences for residential dwelling types and what issues account for this.

3.8 CHAPTER CONCLUSION

This research study was causal in nature and was designed to study the effect of the age stage demographic on individuals' preferences in residential dwelling types. Quantitative data was gathered from individuals from the Adenta municipality and then analyzed using tools such as stacked histograms and cross tabulation before arriving at a conclusion. Inferences were also made from existing literature in interpreting the findings.

4.0   DATA ANALYSIS AND FINDINGS

4.1   CHAPTER OVERVIEW

This chapter discusses and interprets the data that was gathered from the data collection stage. The chapter first examines the different demographics of people who were interviewed. It then goes on to show the different age-stages and how their preferences change and find out if there is any relationship between the two variables by considering the different reasons for the different choices. The chapter then ends of by comparing the results gained from this primary data to that of the secondary data already gathered in the literature review chapter of this study.

4.2   DEMOGRAPHICS

As discussed in the third chapter on methodology, the sampling technique used for the study was the stratified random sampling technique, where the sample was divided into 5 different strata based on the age stage of the respondents. The demographic factors that were considered in the questionnaires were age, gender, marital status, number of children/dependents, employment status and household income-level. These demographics were chosen to give a sense of who the respondents were, and to some extent, gave the rationale why they preferred particular dwelling-type.

4.2.1 GENDER

From the responses gained after administering the questionnaires, 84 were from men; making up 60% of the total sample of 140 respondents, whereas the women were 56, making up 40% of the respondents. This result was simply coincidental since the sampling method was random.

4.2.2 MARITAL STATUS

The study of the marital status of the respondents sought to give a sense of how much residential space the respondent will need. This is because, married people would naturally need more space for their families, than single people would. Fig 4.2 is a pie chart that shows the distribution of the marital status variable within the sample.

From Fig 4.1 it can be seen that more than half of the individuals within the sample are married. There are 83 married individuals, representing 59.29% of the total sample size. Then the single individuals make up 24.29%, representing 34 individuals. There are also 7 separated respondents, 6 divorced, 5 living with their partners and another 5 widowed persons, making up 5%, 4.3%, 3.6% and 3.6% respectively.
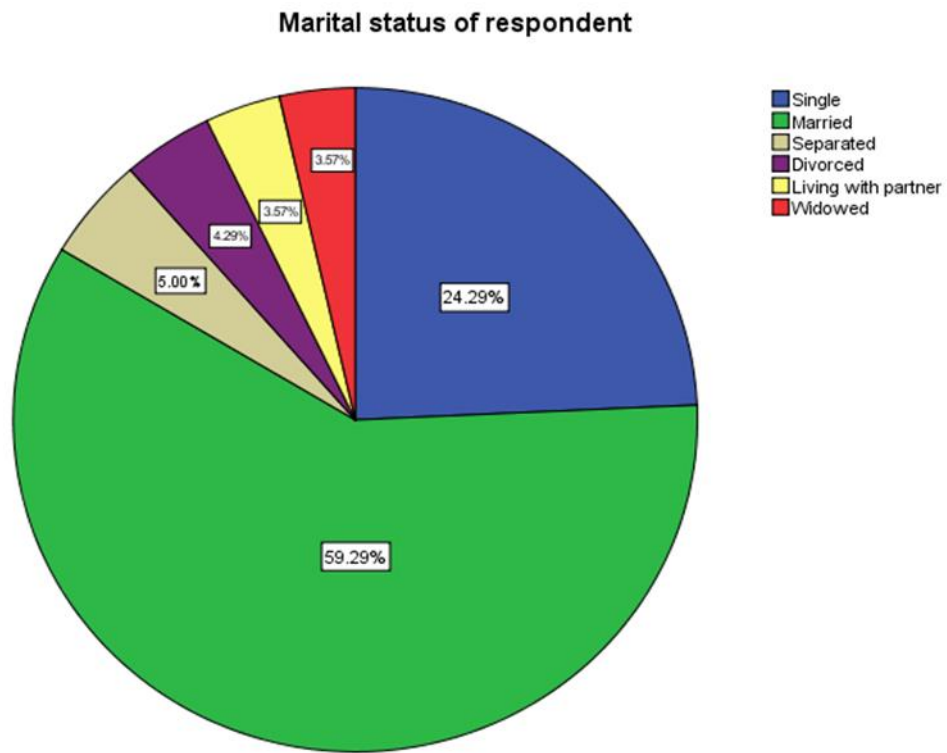
Marital status of respondent

Fig. 4.1 : Marital Statuses of Respondents

Source: Field Data

Table 4.1 below, provides the breakdown of the marital status in a cross tabulation between age of respondent and marital status of respondent. This is to provide a general overview on the different age-stages and their corresponding distribution of the marital status.

Table 4.1   Age of respondent * Marital status of respondent Cross tabulation

		Marital status of respondent						
		Single	Married	Separated	Divorced	Living with partner	Widowed	Total
Age of respondent	Young Adult (20-29)	21	6	1	0	2	0	30
	Adult (30-39)	7	20	1	2	0	0	30
	Middle Aged (40-49)	1	23	3	1	2	0	30
	Older Middle Age (50-59)	3	21	2	2	1	1	30
	Elder (60+)	2	13	0	1	0	4	20
Total		34	83	7	6	5	5	140

Source: Field Data

4.2.3 EMPLOYMENT STATUS

The employment status demographic was also under the focus since it affects the choices that individuals make when purchasing residential spaces, to a certain extent. Fig 4.2 shows the distribution of the employment status of the respondents.

Employment status of respondents
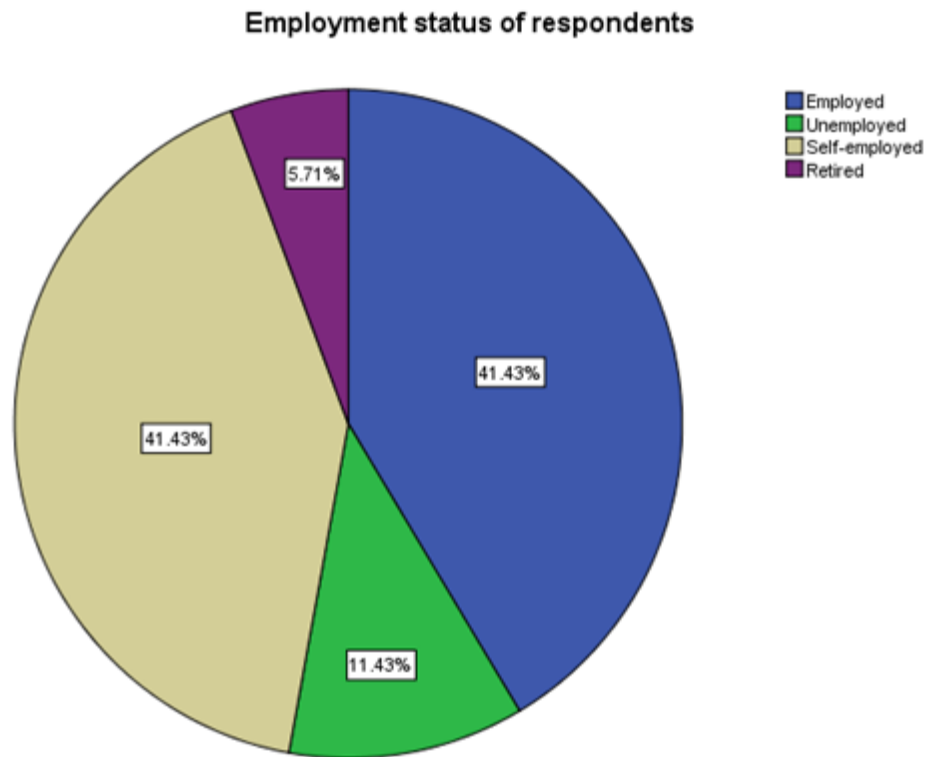
Fig 4.2: Employment statuses of respondents

Source: Field Data

The figure showed that, there was an equal number of employed and self-employed individuals within the sample. Both of them had 41.43% representing 58 respondents. Individuals within the unemployed class made up 11.43% of the sample being 16 individuals. The retirees also made up 5.71% of the number of respondents that is 8 individuals.

4.2.4 MONTHLY HOUSEHOLD INCOME

Fig 4.3 below, describes the monthly household income that the respondent gains.

Estimated monthly income of respondents
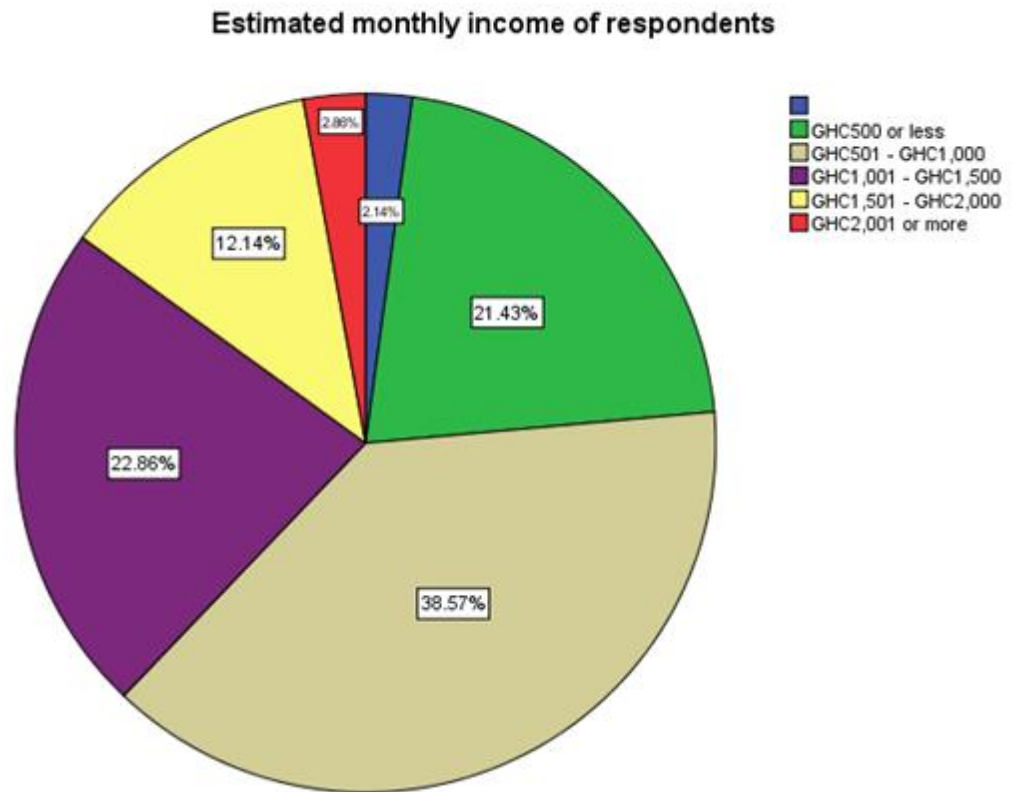
Fig 4.3: Estimated monthly income of respondents

Source: Field Data

This demographic simply seeks to find out how much money is collected by the household every month. It may be from asset yields, work salaries or any other source of income.

The above chart shows that 38.57% of the respondents, representing 54 respondents, ticked their monthly household income to be between GHC501 and GHC1, 000. Following this, 22.86% of the respondents, being 32 respondents, gain a monthly income of between GHC1,001 and GHC1,500. 30 individuals responded that they received monthly

estimated incomes of GHC500 or less. 17 respondents also answered that their monthly household income was between GHC1,501 and GHC 2,000. Lastly, 4 respondents said they received more than GHC2,000 every month as household income. The remaining 2.14% of the respondents, being 3 persons, left that question blank.

4.3 FINDINGS

This part of the chapter makes use of stacked histograms in order to make connections of the different variables that are being studied in order to arrive at a conclusion whether or not there exists a relationship between the age-stage demographic and the preference in dwelling-types.

4.3.1 AGE-STAGE AND PREFERENCE IN DWELLING TYPE

Fig 4.4 is a stacked histogram that analyzes the different age-stages and the preferred dwelling types that respondents selected in answering the questionnaire. Fig 4.5 also, describes the different reasons that motivated the individuals of different age-stages to select their choice of preferred dwelling-type.
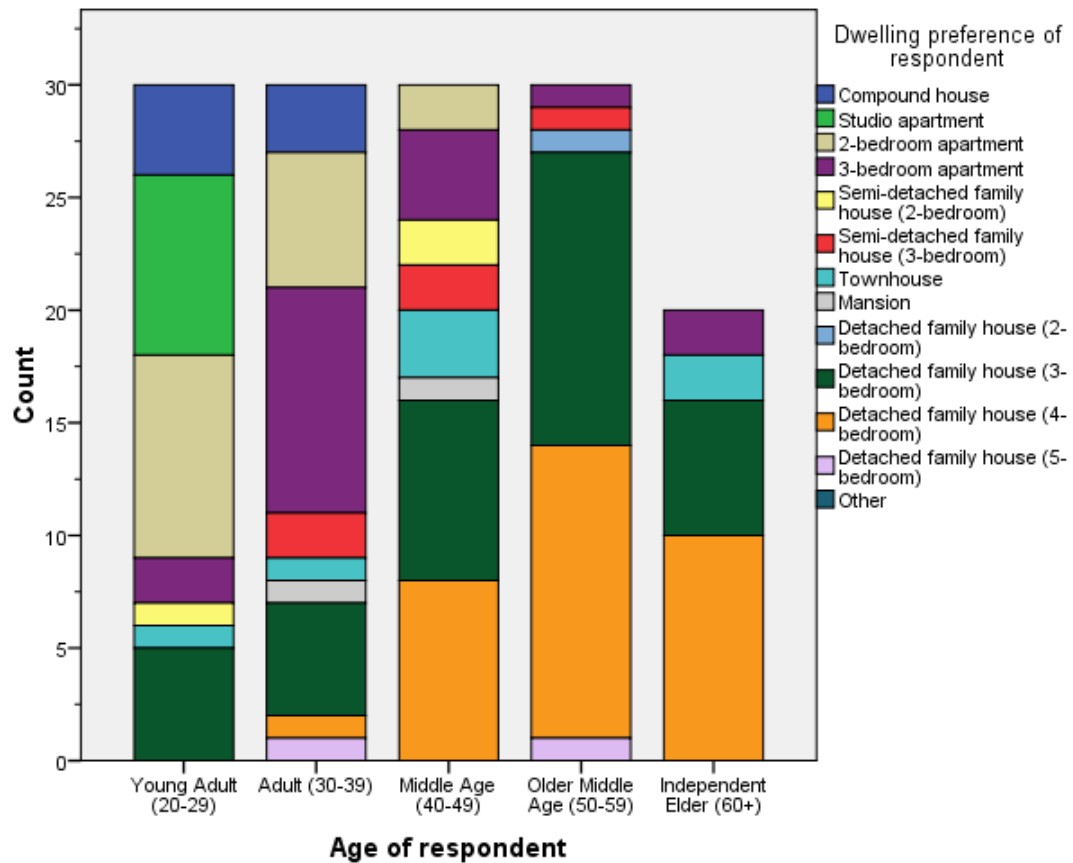
Fig 4.4 Dwelling preferences of respondents

Source: Field Data

From Fig 4.4 it can be seen that most of the young adult respondents preferred to stay in 2-bedroom apartments and in studio apartments. Considering the reason in Fig 4.5, one would realize that most of the young adults made their decisions based on privacy and cost effectiveness. At this age, one is just starting his/her life and inferring from the cross tabulation table in Table 4.1, it could be seen that most of the respondents within this stratum are single, and therefore do not need that extra residential space.

Moving upwards, there is a change in preference where most of the adults prefer 3-bedroom apartments the most, to any other dwelling type. When asked about reasons for the factors that motivated their choices, most of the respondents selected cost effectiveness. Privacy was also a dominant motivating factor within the strata after the cost effectiveness.
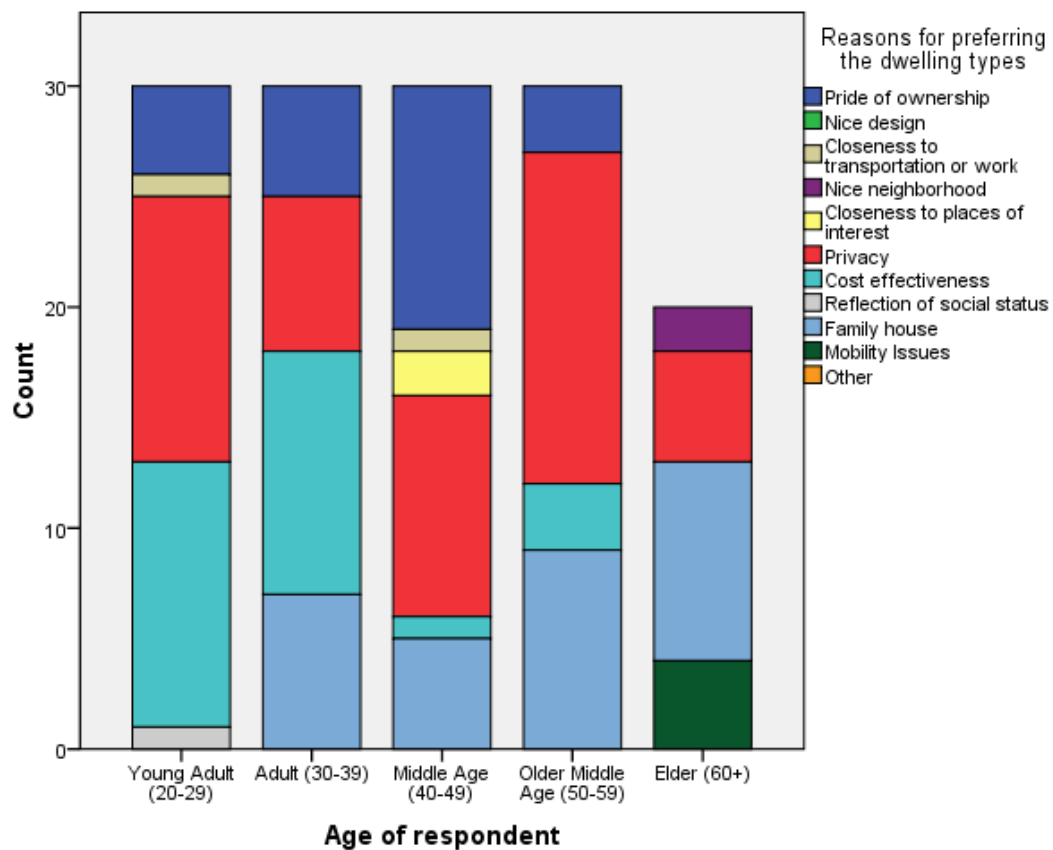

Fig 4.5:   Reasons for selected preferences

Source: Field Data

Considering the respondents within the middle age stratum, the 3-bedroom detached family house and the 4-bedroom detached family house were the

dominant preferences. When asked about the factors that motivated their choices, pride of ownership and privacy came up as the top factors that motivated their choices.

The preferences of the respondents within the older middle age stratum were not very different from that of the respondents from the middle age stage. However, it could be seen from Fig 4.4 that the number that selected both dwelling-types as their preference, have increased drastically, reducing the number who selected other dwelling-types apart from these two. Also, most of the respondents chose privacy as the motivating factor, followed by the need for a family house.

Lastly the respondents within the elder age-stage were more inclined towards the detached 4-bedroom house. Also, most of the individuals responded that they wanted big houses due to the fact that they need places for when their children or grandchildren came home to visit them. Other factors that motivated their choices had to do with mobility issues, privacy and the beauty of the neighborhood.

5.0   CONCLUSION AND RECOMMENDATIONS

5.1   CHAPTER OVERVIEW

As discussed in the introductory chapter, this final chapter draws the curtain on this study and makes recommendations to real estate developers as to how to use this study as an additional tool in targeting a specific market segment to provide housing for.

5.2   AIM AND OBJECTIVES

The research sought to investigate into the existence of a relationship between the age-stage demographic of individuals in Ghana and their preferences in residential dwelling-types. This objective was met through the use of both primary and secondary data.

Primary data was gained through the administering of questionnaires with close-ended questions to individuals within the Adenta municipality. This data was then analyzed using descriptive statistical methods such as cross-tabulation and stacked histograms.

Secondary data as well, was gathered from existing literature in the second chapter of this paper. Inferences were made from different sources in order to arrive at a conclusion on the topic.

5.3   MAJOR FINDINGS

Making inferences from both primary data and secondary data gathered from literature, there is a relationship between the age-stage demographic and preferred residential dwelling-type. In other words, the age-stage of a person, affects their preference in residential

dwelling type. The study uncovered that as a person rises up the different age-stages, their preferences in the residential dwelling-types increase in size. In comparison to the study conducted by Steffanson (2012), one could notice a similar pattern up until the age-stage of elders, where Steffanson reports them to prefer smaller apartments. Ghanaians within the Elder age-stage, prefer to stay in big 3-4 bedroom houses, with most of them stating that they wanted a place for their family when they visited. This shows the extent to which culture plays a role in the choices individuals make in their preferred residential dwelling-types.

Also, both young adults and adults, select houses mainly based on the cost effectiveness, due to the fact that they are either unemployed or just started working. Therefore their finances are not very strong to afford bigger houses. Individuals within the middle ages also have their preferences geared towards houses that can provide them with a certain level of privacy. This could also be as a result of the fact that they have families and would like to settle in cool environments and be by themselves.

5.4   RECOMMENDATIONS

As mentioned in the introductory chapter, findings from this study could be used by real estate developers as an additional tool when targeting specific market segments to provide housing for. Therefore, if a developer chooses to provide housing to individuals within the young adulthood age stage, they would see that according to this study, most

of the individuals within this age-stage bracket are single. Also, they prefer small apartments that could provide them with the privacy that this study indicates that they want. And so, putting up developments that satisfy this need will generate interest within individuals from this age-stage thereby increasing profits.

5.5   LIMITATIONS

As with any other research study, there were a number of limitations that reduced the extent to which the study could be conducted.

The first of these limitations is the fact that the entire sample could not be accessed. The intended sample size was 150 individuals, 30 for each strata. However, for individuals within the independent elder age-stage, only 20 individuals were represented. This was mainly due to the fact that the individuals within this age-stage are generally inaccessible and considering the time constraint, 20 was good since it was more than half of the intended number.

Secondly, there was an issue of the language barrier. Some of the respondents had problems understanding the questions in the English language and asked for it to be translated in the more local Twi and Ga dialects. Therefore since the researcher was not very proficient in these languages, communication was problematic, since it meant that there was the possibility that responses were not accurate since they were based on partial understanding of the questions.

Lastly there was an issue of respondents' readiness to answer certain questions. Some of these questions were on issues such as the estimated monthly income as well as the marital status of the respondents. Some respondents were not very comfortable with answering these questions, and so they left those questions blank. In controlling this limitation, the incomplete questionnaires were scrapped and administered to other individuals so as to attain the intended number of respondents.

5.6   RECOMMENDATIONS FOR FURTHER RESEARCH

In the light of the above stated limitations, further research on this topic could be made easier and much more efficient by firstly, targeting a larger sample. Targeting a larger sample means that there is much more information and that the conclusions that will be made are very representative of the population. Also, a few missing responses will have no substantial effect on the findings.

Also, pilot questionnaires should be administered to the individuals within the sample as a test for how much they understand the questions and how to frame questions in a way that does not offend the respondents. This is very important point since this is a social research and has to do with individuals' cognition on certain issues, therefore the questions as much as possible, should be tested so as to know the extent to which the respondents understand and respond to the questions.

Lastly, due to the large nature of the targeted sample, it would be advised that the researcher gets aid in administering the questionnaires. This kind of research, if conducted on a very large number as advised can be stressful. Therefore getting help from about two other individuals in administering the research is very helpful. It also helps to mitigate the risk of running out of time.

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APPENDICES

QUESTIONNAIRE

Section I   Socio-demographic Data

The following background information is needed about you for classification purposes. Please indicate the classifications which best describe you by ticking the appropriate box.

1. Age

☐ 20 – 29 years   ☐ 30 – 39 years   ☐ 30 – 39 years

☐ 40 – 49 year   ☐ 50 – 59 years   ☐60+

2. Gender

☐   Male   ☐   Female

3. What is your marital status?

☐ Single   ☐ Married   ☐ Separated   ☐

Divorced

☐Living with Partner   ☐   Other   (*please   specify*)

_____

4. If your answer to question 3 above was '*Married'*, how many wives do you have?

(*Where head of household is female, please skip*).

☐ 1   ☐2   ☐3   ☐4   ☐5

5. Indicate the number of children or dependents living with you.

☐　0　　　　　　　　　☐1- 3 in number　　　☐　3 -5 in number

☐　6 – 8 in number　　☐　9 – 10 in number　☐　More than 10

6. What is your employment status?

☐Employed　☐Unemployed　　　☐Self-employed

☐Other (*please specify*)_____

7. What is your estimated monthly household income?

☐GH¢500 or less　　☐ GH¢501– GH¢1,000　　☐GH¢1,001 – GH¢1,500

☐GH¢1,501 – GH¢2,000　　　　　　　　☐GH¢2,001 or more

Section II Dwelling Preference

8. What dwelling type do you prefer to live in?

☐Compound house　　　　　　☐Studio Apartment (1-bedroom)

☐Apartment (2-bedroom)　　　☐Apartment (3-bedroom)

☐Semi-detached family house (2-bedroom)　　　☐Townhouse

☐Semi-detached family house(3-bedroom)　　　☐Mansion

☐Detached family house (2-bedroom) ☐Detached family house (3-bedroom)

☐Detached family house (4-bedroom) ☐Detached family house (5-bedroom)

☐　　Other (*please specify*)_____

9. What are the reasons for preferring this dwelling type to the others?

(*please tick one*)

    ☐   Pride as a result of ownership   ☐Nice design

    ☐Location (closeness to transportation and work)

    ☐Nice neighbours

    ☐Closeness to places of interest   ☐Privacy

    ☐Cost effective (price of dwelling)   ☐ Reflection of social status

    Additional reasons:

_____

_____

General comments:

_____

_____

_____

_____

Thank you!