



INVESTIGATING THE USER'S SATISFACTION OF WOMEN IN KITCHEN DESIGN

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ABSTRACT

This study presents a dedicated analysis on the influence of women in kitchen design. It attempts to highlight through practical description, the specific expectations of typical Nigerian women on how their kitchen spaces should be designed and organized. The aim of this study is to investigate women expectation in an ideal kitchen design for residential houses in Nigeria. The study adopted the questionnaire survey technique to collect the main users' expectation about their kitchens to help designers to deeply understand, organize and implement their needs. The respondents were selected from Federal housing estate, Iyana Ipaja, Lagos State and Covenant University Staff Estate, Canaan Land Ota, Ogun State. SPSS 14 was utilized to evaluate the demands and expectations of women in the study. The Research indicates that women desire to carry out more tasks in the kitchen. The findings shows that women desire for an ideal kitchen is to be designed and organized to suit their busy life styles but much less has been focused on by Architects in their designs. The study concludes that the kitchen design should be taken more serious in a typical Nigerian house in other to make mothers happy on whose shoulders the huge social cultural expectations lies.

Key words: Household, Kitchen design, Mechanical and Electrical Drawings, Plumbing, Career women

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1. INTRODUCTION

The place of housing being one of the most important needs of man in the hierarchy of needs has been discussed severally by different authors. Housing is considered as totality of the building and the environment in which it is situated including the physical structure, facilities and apparatus for the total health and comfort of the people within a household. Housing therefore is a fundamental product for every human being irrespective of their financial standing. Socially, housing symbolizes the status of the family to both the wider community and the family itself. Also, the quality and quantity of housing stock is a reliable barometer of the technology, culture and civilization of any nation. Thus

housing provides social contacts, good image, a sense of belonging and an indicator of social status this lead to a home.

In viewing a house is a structure and a home as an experience, Shu-Mei Chen, Shwuhuey Wang et.al. (2011) considered housing as an interactive process with meanings tied to status, social position, career path, wealth, power, aspirations, and personal identity. However a home is a place where goods and services are consumed rather than produced. Every home has a food preparation point referred to as a kitchen. Different interior spaces like bedrooms, living rooms, lobbies and kitchens make up a residential house. However, the kitchen receives the greatest contact. The design and organization of the Kitchen within a house for the educated and career women is important. This study investigated the satisfaction in the design and arrangement of the kitchen space in Nigerian households.

As a result, there is no doubt that the range of what people take to be normal and necessary in kitchens has changed over the last thirty years. According to Ekhaese, et al. (2017) the kitchen is a relatively hazardous place in homes, it means different things to different people; the only common thing is that it serves the same purpose of cooking in every house. Cooking in the kitchen is an activity that most women engage in regardless of educational level, ethnicity or clear status. The tasks in the kitchen form the praxis to bridge the gap between academic theoretical discourses about female subjectivity and quotidian working class women. The way a woman goes about her cooking reveals the existence of highly individualized and symbolic ways that the kitchen space is designed. The life circumstance of working women may not permit them the time, space and money to express their creative traits. The kitchen space can be compared with a form of studio and cook ups in an artistic expression. The kitchen as a domestic space validates the social, cultural and economic significance of women's household.

A kitchen is found in housing and it is precious to an average woman, as it makes her home complete. Conventionally and based in architectural terms, spaces in relation to the activities taking place in them have functions. Kitchens, which are usually part of institutional, commercial and residential buildings function as spaces where food is prepared, cooked and served. Additionally, kitchen offer opportunities for some other activities. In places where family size is mostly small, kitchens are also used for dining. Some clients even request for their design to accommodate the dinning in the kitchen (Izobo-Martins et. al., 2018).

2. LITERATURE REVIEW

Food is one of the basic things man needs in life. The broader goal of providing and improving food can be achieved in a comfortable environment. By nature, atoms are involved in characteristic activity; thus implies that the state of being active has to do with type of food and where it is prepared (kitchen). The body responds to good food most times. The ability of any man to work will depend on the quality of the food he takes. E.g., people who take good food are found to be healthier and with a better working capacity than someone who takes poor food. Those people also tend to live longer. In the last century, man's achievement with respect to the cooking environment has surpassed those of earlier times. Nevertheless, presently, Nigerians have not received the necessary attention of the architect in this area.

The word kitchen is derived from the Latin word "coquina" meaning to cook. Over time, household cooking have moved from being done outside in the open, in small detached structures (out-kitchen) to being incorporated into the living space where the kitchen space became more mechanized. In housing, the kitchen is the gathering place, the spot where everyone comes together with respect to the level of activities (involving the volume of food cooked). Traditionally, the kitchen is always separated from the main dwelling unit and regarded as a domestic space. (Hand, Shove and Southerton, 2007) while Corrigan (1997) and Miller (1988) discussed that a kitchen is a space of identity and self-expression. Symbolically the kitchen space is a culinary metaphor for how working class women speak or interact with domestic duties of a woman and care giver. Abarca (2008) threw light on the

distinction between theory and action on the field of knowledge in an ordinary home kitchen such that kitchens are becoming increasingly multifunctional spaces. There has been an establishment of a link between the image of a woman and the choice of a kitchen at the advent of industrial revolution.

In the feminist theory of female subjectivity, some spaces in theories were meant for women due to gender, class and ethnicity. The kitchen is more than just a functional and necessary room within an architectural designed house. It represents a woman's independence and strength. However to feminist women's rights advocates that the kitchen in a home is a woman's mandatory duty post as long as the woman begins to cook. The kitchen therefore may mean much more than a space of freedom as a place of obligatory labor. Many feminists have argued that the kitchen represents the focus of women's emotional, physical, spiritual and economic vulnerability. The social interactions of daily life that unfold within a given space like the kitchen define its significance. Agrest (1991) describes the functional aspect of the kitchen within the overall house's design as a place where food is stored, prepared, served and often eaten. The kitchen is an area of a house that the majority of women cannot escape from or avoid regardless of class, marital status, profession, ethnicity or political views despite the fact that economic, gender & racial and clear motives have shaped the form/design of the kitchen beyond its basic functions in the design of a house. For working class women, the appropriation of their kitchen space becomes particularly crucial as they can rarely afford to leave their kitchen work to someone else. Presently, in modern kitchen design, two categories of kitchen have emerged namely, micro kitchen and macro kitchen. Micro kitchen is identified with the level of management, equipment and activities involved in the preparation and cooking which are at very small scale compared with what happen in the macro kitchen. Macro kitchen is an administratively organized industry with the aim of achieving mass preparation of different types of food for a projected number of consumers.

2.1. The Traditional and Modern Kitchen Design in Buildings

Unlike contemporary architecture, in most parts of Nigeria, the traditional kitchen was to a large extent, detached from the main building. The traditional kitchen for low- income earners use firewood, with three stones purposely arranged like tripod for cooking. The traditional kitchen for middle and high-income groups is purpose –built. The middle income roof their kitchen and still cook with firewood. In the high – income case, coal is used for cooking. There is a clear difference in the way the three income categories of Nigerians source their coking fuel. In the low class, the homemaker collects firewood for herself; in the middleclass, she buys the wood while the high income waits at home for the sellers to bring coal.

The main function of the kitchen should be given consideration in relation to other parts of dwelling units. Its location, size and shape in buildings should be given thoughtful attention. The role of the kitchen had to do with lifestyle, income and the size of the anticipated users. In any housing design, the shortest possible distance to connect a kitchen to the entrance foyer, back verandah, dinning and garage where available has to be considered. The concept is used and supported by the fact that carrying raw food items or cooked ones over a long distance should be avoided. Users should be able to get the kitchen without disturbing other members of the family or their guests. Architects should make enough effort to properly locate the kitchen in any home design. In a two-storey building for example, users should be able to reach the kitchen without going through the living room. In multi-storey buildings, the design should be conceptualized as to be able to achieve the best location for the kitchen. Achieving the shortest distance from any part of the apartment should be ultimate to the architect.

2.2. Layout of Dish Preparation using the Kitchen Utensils

The preparation of most of our traditional foods involves pounding, grinding, frying among others which could be done manually or mechanically. The manual process of grinding and pounding requires more space, because of the required base and movement. Moreover, muscular energy is involved and it is accompanied by the production of much heat in the body. Considering this, moving air (and constant fresh air) is needed to remove sweat from skin, to achieve comfort. In case of the mechanical method, pounding, grinding and flying requires little space. It has some socio-economic problems, tough only very few people can afford the mechanical method, and the public electricity supply is not constant. From enquiries, it was observed that during power outage, many use the manual method for their cooking. For comfort ability, secondary kitchen should be constructed for every home in the form of skeleton building system. The load bearing elements of the perimeter should consist of pier- walls and space between should be dwarf walls with a door. This construction should be roofed, and have reinforced concrete floor slab that can withstand exerted pressures. The size of this secondary kitchen in term of space should be considered to be at least one-third of the main kitchen. A terrace can be used as an alternative in high- rise buildings. The need for secondary kitchen is basically for large cooking, stove usage and coal. The kitchen utensils have increased qualitatively and quantitatively. Kitchen utensils do not only include the wooden spoons, woven baskets, sieves and molded pots but additional metal pots. A mixer or a blender, frying pan, tin openers, egg whiskers metal craters, knives etc. Differences exist between the traditional and mixed –traditional cooking and dining methods. The habit of eating with fingers is gradually diminishing. Looking at spatial organization and activities, it is required that kitchen utensils be kept hygienic in every kitchen routine.

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3. METHODOLOGY

The study adopted a survey research approach used by Izobo-Martins et al 2018. A structured questionnaire was developed as the survey instrument. A total of 100 questionnaires were distributed.

A return rate of 92% was achieved. The life style of educated women after their official hours was investigated. The respondents were selected from Iyana Ipaja area of Lagos State and Canaan Land in Ota, Ogun State making them to be the respondent/unit of analysis. These women were more knowledgeable about the considerations and desired comfort expected in their houses. The data gathered were subjected to analysis using the Statistical package for Social Sciences SPSS 17, adopting mainly descriptive statistics. Pictures were also taken to enhance direct observations; results were then presented in form of charts, figures and tables.

4. DATA PRESENTATION AND DISCUSSIONS

In a bid to understand the study area, the study asked respondents to identify the situation around various houses. The followings were investigated and analysed with SPSS.

4.1 Socio-Economic Characteristics of Respondents

The socio-economic characteristics of the respondents were investigated focusing on number of children, marital status, age, occupation, number of children and occupation. The study revealed that most of the respondents 39% were aged between 41-50 years, 15% were aged between 51-60years while 38% were aged 31- 40years, while aged 20-30years were 8% of the sample. Respondents were asked about their marital status and the result shows that 80% as married, 15% single and 5% widowed. The study also showed that 57 % of the respondents have between 1-3 children while those with 4-6 children were 38% of the sample with 5 % of them having between 7-10 children. The study examined the occupation of the respondents, which is revealing 32% as self-employed and 54% as civil servants and 14% of the sample work for private organisation. The home types of the respondents were identified, 58% respondents live in semi building type (bungalow and storey), while 25% live in duplex and 17% occupies apartment buildings. The income levels of the respondent was enquired with majority (67%) of the respondents as middle income earners while 25% are high income earners and 8% as low income.

4.2 Effect of Building Typology on Size of Kitchen

The effect of kitchen on the housing typology was investigated. The result shows that 78% of the respondents were opinioned that the housing type has effect on the size of the kitchen, 20% think it does not and 2% are indifferent about that variable.

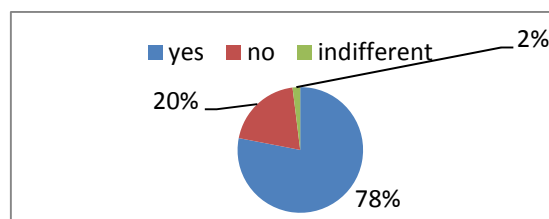


Figure 1: Analysis of effect of housing type on kitchen size

4.3 Proximity of the Kitchen Space to Living and Dining Area

A question was asked on the proximity of the kitchen to the living or dining areas: 33 respondent said that the kitchen is next to the living or dining areas, 12 indicated that it is close to it, 3 said it is a little far from it and 2 said it is very far from it. Fig. 2 reflects the response by the women on relationship between the kitchen and dinning area. The majority of the result shows that only 33% agreed that the kitchen is next to dinning. This is an indication of poor designs by some Architects and Engineers.

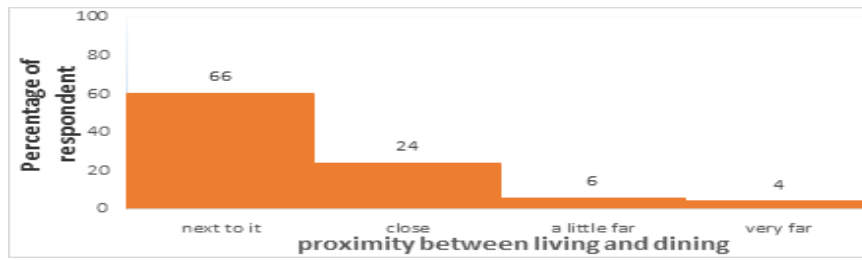


Figure 2: Showing the Proximity of the Kitchen to the Living or Dining Area

4.4 Kitchen with Outdoor Space

Most culture and the social life styles of the people in the study area encourage communal cooking. From fig.3, 78% of the respondents had an outdoor space while 22% do not have any outdoor space. This is found inadequate, more so that the society is very sensitive to this variable.

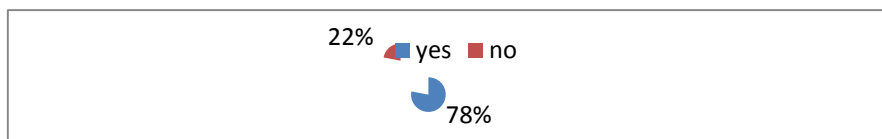


Figure 3: Showing Number of respondent with outdoor space

4.5 Work Flow in the Kitchen

Work flow was used in order to retrieve data on the criss-crossing and back tracking for prompt, effective, smooth production and service in the kitchen. The building designers provide the basic things in the kitchen. The result indicated effective work flow by the respondent were shown in Figure 4.

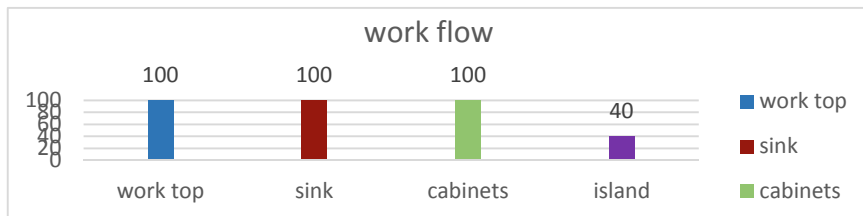


Figure 4: Equipment Occupying Spaces in the Kitchen

4.6. Kitchen Equipment

To analyze reflects the existing equipment in the kitchen. The result shows that the basic kitchen equipment is all important to today's women. There is an indication that kitchen spaces should be designed with the intension of creating the space to occupy all these equipment and results are shown in figure 5.

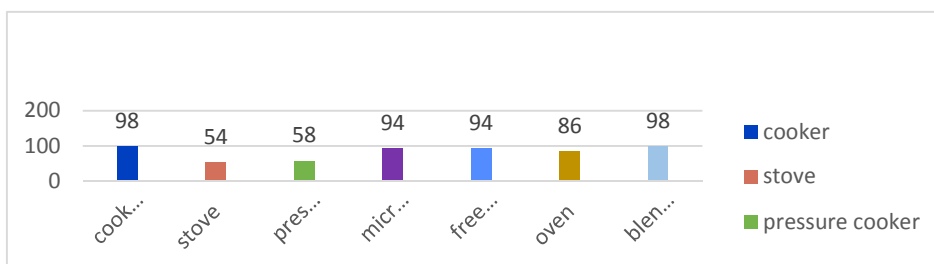


Figure 5: Showing Equipment utilized by respondents

4.7. Oftenest of Cooking their Kitchen Space

The below figure shows that 94% of the respondents cook everyday while 6% of the respondents cook on weekends. . So majority of respondents opined that, they need a comfortable place to do their cooking.

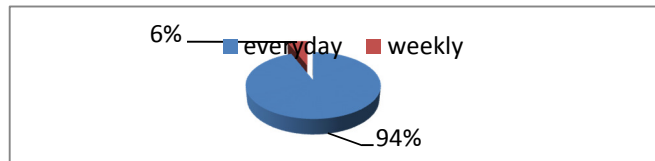


Figure 6: Showing Oftenest of cooking in the Kitchen

4.8. Building Finishes Satisfaction

The below figure shows that the majority of the respondents are highly satisfied with their ceiling finishes, followed by the floor finish and the wall with the least satisfaction. So majority of respondents opined that, their level of very dissatisfaction is low. The result is shows below in fig.7.

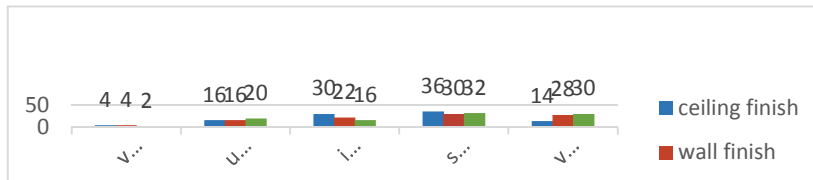


Figure 7: Showing the Satisfaction of Ceiling Finish, Wall Finish and Floor Finishes

4.9. Frequency of Kitchen Sink Blockage

The respondents were asked about the frequency of their kitchen sink being blocked, the results shows that 62% of the respondents rarely have their sink blocked, 24% of the respondents have their kitchen sink blocked sometimes, 8% of the respondents have their kitchen sink blocked often while 6% of the respondents never have their kitchen sink blocked.

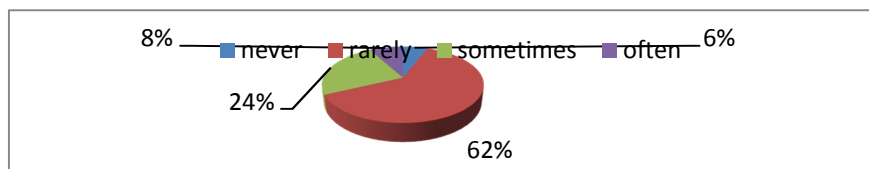


Figure 8: Showing Frequency of Kitchen Sink Blockage by Respondents

4.10. Aroma from the Kitchen to Other Spaces in the House

The respondents were asked about their comfort level on the effect of the aroma from the kitchen while cooking. The majority of the women were uncomfortable with the aroma within the house. The result can be seen in figure 9.

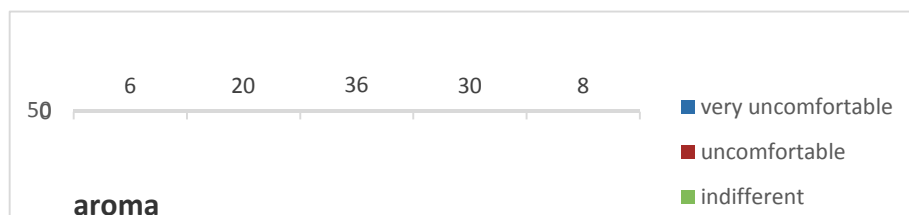


Figure 9: Showing the Comfort Level of Respondent with the Aroma Coming Out of their Kitchen

4.11. Remodeling of the Kitchen Space

The respondents were asked if they have undergone any form of renovation on their kitchen, the results are as follows, 60% of the respondents have undergone renovation work on their kitchen while 40% of the respondents have not undergone renovation works on their kitchen. The results are shown in Figure 10, below.

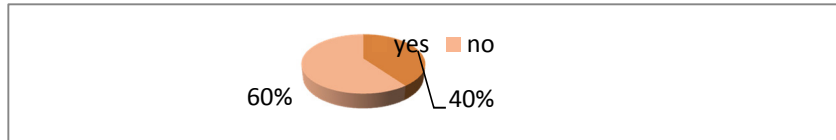


Figure 10: Renovation Work on the Kitchen

4. 12. Discussion of Findings

The adaptation tendencies of an average Nigerian woman may inhibit addition of certain requirements during cooking because of the cultural lifestyles. . Kitchen design in Nigeria can only effectively incorporate the requirements expected from designers’ activity from Architects at the design inception, alongside with the engineers and builders during construction. The following needs to be put in place;

- The kitchen space should be made more interactive. The user should be able to multitask from the kitchen while using the space e.g. the user should be able to have a corner to sit while cooking.
- The outdoor space adjoining the kitchen should be a must-have in any Nigerian home. This will enable the users to do less rigorous work outside that might impede interior comfort. Also, would be useful for large cooking during social events.
- The kitchen garden should be incorporated as essential extension of the kitchen. This improves the thermal comfort of the kitchen area while providing the woman of the house with vegetables and spices.
- The kitchen should look more homely by the colour and construction of finishes used in its interior, colours like green and orange in different shades can be used.
- Kitchens also need to be well ventilated; all needed openings should be provided.

5. CONCLUSION

The research identifies the design and use of interior kitchens in Nigeria has improved over the years getting rid of outdoor kitchen. But the kitchen space could be better, with good relief levels. High level of comfort and satisfaction in the kitchen could be achieved and this is solely in the hands of the designer and contractors. Designers should endeavor to take into cognizance the proper designing of the kitchen because the kitchen is and will always be the industry based of every home. However, good plumbing work is expected in all kitchens.

6. ACKNOWLEDGEMENTS

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