

PERCEPTUAL ORIENTATION FOR HOUSING FLOOR FINISHES CHOICE AND PREFERENCE

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ABSTRACT

Housing interiors are the environments where most of life's activities take place. The finishing of this housing interior is of paramount significance, and house owners and prospective house owners always give premium to how their housing interiors are finished. The choices of finishes materials always provoke and create certain motivations and perceptual orientations while these choice and preference activities are being undertaken. This paper presents the perceptual orientation with respect to housing floor finish choices and preferences in Yola, Nigeria. The study was framed within the Means-End Chain (MEC) model, and preferences. Fifteen (15) respondents were interviewed using the laddering interviewing technique. Prior to the laddering interviews, a structured questionnaire survey was administered to 150 respondents to elicit the relevant housing floor finishes attributes. The results revealed that eleven (11) identified unique perceptual orientation pathways were established, motivated by five user values; intervened by four expected functional affordances. The findings reinforced the design expectations of housing users/owners for finishing their housing interiors.

Keywords: Means-End Chain, Laddering Technique, Housing Finishes, Perceptual Orientation, & Housing Choice and Preference.

INTRODUCTION

Housing is a complex and heterogeneous product in its setting, the cognitive structures of housing users for housing attributes is also complex as well as their choice behaviours; as choices are versions of our life expressions. We become versions of who we are based on the different choices that we make (Zinas & Jusan, 2010a). They further emphasize that preferences and choices are lifetime phenomena, and that every person lives and operates within the framework of choosing from alternatives of life's endeavours. These choice and preference activities are dynamic in *modus operandi*. Molin *et al.* (1996) state that choices are understood to echo preferences. The Means-End Chain (MEC) model has been found in its application to successfully handle and measure these complexities in housing research (Zinas & Jusan, 2010a, b). In making these choices, several perceptual orientations can be provoked; the aim of this paper is to present the perceptions of prospective house owners for choosing ceramic tiles as floor finishes for their would-be housing interiors.

THEORETICAL FRAMEWORK

The Means-End Chain (MEC) Model

Gutman (1982) first introduced the concept, with a focus on qualitative in-depth understanding of consumer motives. Reynolds and Gutman (1988) made MEC model well-accepted by providing a hands-on description of how to conduct, analyze and use MEC interviews (Weijters & Muylle, 2008). Kaciak and Cullen (2006) assert that MEC has been a popular and ever-evolving research domain since its introduction. Gutman (1982) defines MEC as a model that seeks to explain how a product or service selection facilitates the achievement of desired end states. The variables or constructs of the original structure of MEC model (Gutman, 1982) are attributes, consequences and values (Fig. 1).

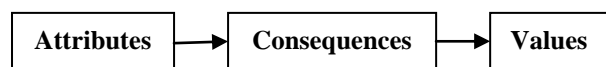


Figure 1: Structure of MEC (Source: Gutman, 1982)

Laddering Technique

The method used for data collection in MEC is known as laddering. It was first introduced in the 1960s by clinical psychologists as a method of understanding people's core values and beliefs (Hawlev, 2009). Laddering refers to an in-depth one-on-one interviewing technique used to develop an understanding of how consumers translate the attributes into meaningful associations with respect to self, following means-end theory (Gutman, 1982; Reynolds & Gutman, 1988). It is qualitative in nature – utilizing a semi-structured interviewing technique aimed at eliciting responses from respondents' perception on the attribute-consequence-value (A-C-V) elements (Jusan, 2007a).

METHODOLOGY

Elicitation of Housing Attributes

Eighteen sets of interior finishes attributes were compiled and profiled under three attributes segments of floor, walls and ceiling, in a matrix of a structured questionnaire and distributed to 150 randomly sampled prospective house owners in the city of Yola, Nigeria. To make informed responses, a supporting demonstration 3D technical model of a one bedroom bungalow house was shown to each of the respondents that are not technically inclined to clarify the technical terms of the interior finishes elements. The questionnaires were collated, and a semi-structured interview called 'laddering' was conducted with fifteen (15) of the respondents. The selection criteria for the fifteen respondents were on four (4) levels: firstly, desire of respondent to build own housing; secondly, development stage of proposed housing below occupational stage; thirdly, frequency of preferred sets of interior housing finishes; and fourthly, willingness to oblige an interview. The laddering interview with each of the respondents was conducted either in the respondent's house or office depending on respondent's convenient venue and time. Each of the interviews was digitally voice recorded. These free responses voice recorded interviews were transcribed and content analyzed.

Data Analysis

Content analysis was used as the method for analyzing the data generated from the laddering interview. Neuendorf (2002 p. 1) defines content analysis as the systematic, objective, quantitative analysis of message characteristics; which involves the careful examination of human interactions. Weber (2004) describes content analysis as a research method that uses a set of procedures to make valid inferences from texts. The content analysis of the transcribed data was done within the context of that outlined by the traditional MEC methods (Reynold & Gutman, 1988) and Weber's (2004) methods. The basic element of analysis of the study is "word", "sense of sentence" and "sense of phrases" as posited by Jusan (2010).

Identifying unique pathways linking main attributes to user values provides the interpretive observation for the HVM as revealed by Jusan (2007b). Reynolds and Gutman (1988) assess that identification of unique pathways permits a more meaningful identification of the important attributes, consequences (or functional affordances), and motivating user values. This is usually done by tabulating the items or elements integrated in the pathways and calculating the frequency of direct and indirect relation of linkages among them. These pathway linkages are derived from the summary of implication matrix (SIM). The higher the relation score of the pathway, the more important the items in the pathway are of significance to the choice and preference processes for interior finishes to the respondents.

RESULTS AND DISCUSSION

Perceptual Orientation Pathways for Floor Finishes

From HVM (beyond the scope of this paper) for floor finishes, eleven (11) unique perceptual pathways can be identified for the floor finishes (Table 1). The "beauty" attribute has five (5) such unique pathways; "environmental friendly" and "durability" attributes have one (1) unique pathway each; and "hygienic" attribute has four (4) unique pathways. Five (5) motivating user values of "hedonism", "power", "security", "achievement", and "self-direction" were responsible for all these eleven unique pathways. The pathways have four (4) intervening expected functional affordances (consequences): "conducive environment" (I feel relaxed, cool atmosphere, conducive place); "appealing environment" (pleasurable place, appealing to me, appreciative floor); "saving resources" (saves me time, saves me energy, no spending on medication); and "healthy environment" (anybody can clean, don't fall sick, fresh air). The relationship linkages for "affordability" and "availability" pathways are not strong enough to form part of the floor finishes perceptual orientation pathways.

Table 1: Floor Finishes Pathways (Source: Zinas 2012)

Pathways	No. of Pathways	Intervening Functional Affordances	Motivating User Values
i. Beauty (B)	5	Conducive Environment (CE); Appealing Environment (AE)	Hedonism (HD); Power (P); Security (S); Achievement (A); Self-Direction (SD)
ii. Environmental Friendly (EF)	1	Conducive Environment (CE)	Power (P)
iii. Hygienic (HG)	4	Appealing Environment (AE); Saving Resources (SR); Healthy	Hedonism (HD); Power (P); Security (S); Achievement (A);
iv. Durability (D)	1	Environment (HE) Saving Resources (SR);	Achievement (A);
Total	11		

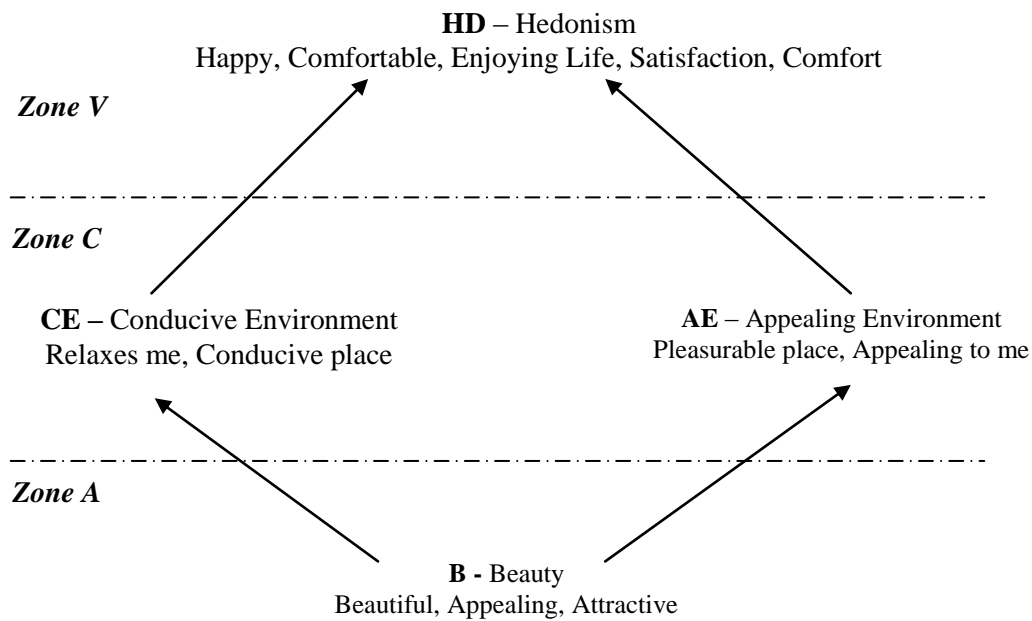
Due to the number of these pathways, only a summary of the calculated relation score is included in this paper (Table 2). For purpose of clarification, only the unique pathway with higher relation score is herein explained and ‘beauty-hedonism’ perceptual orientation pathway emphasised. The summarized unique pathways with the calculated relation scores are presented in Table 2. These summarized unique pathways compare the strength of each pathway by calculating the relation score of linkages of each pathway. The relation score of the linkages shows the direct and indirect relations, as well as the total value of the score. The score value to the left of the decimal is the direct relation score, the score to the right of the decimal is the indirect relation score of the linkages of the elements in the pathway. The score in the parenthesis is the total of the direct and indirect relationship score of the pathway. For instance, the relation score for Beauty – Hedonism pathway of 277.97 shows that 277 elements in the pathway are directly related, while 97 elements are indirectly related; with a total of 374 relationships of all the elements within the pathway occurring.

Table 2: Pathways Relation Scores for Floor Finishes (Source: Zinas 2012)

Floor Finishes			
Pathways	Relation Score	Pathways	Relation Score
Beauty - Hedonism	277.97 (374)	Hygienic – Hedonism	414.61 (475)
Beauty - Power	232.78 (310)	Hygienic – Power	235.41 (276)
Beauty – Security	90.37 (127)	Hygienic – Achievement	298.53 (351)
Beauty – Achievement	126.69 (195)	Hygienic – Security	175.26 (201)
Beauty – Self-direction	89.37 (126)		
Durability - Achievement	195.18 (213)	Environmental Friendly – Power	135.14 (149)
i.	Note:		
	Attributes Codes: Beauty- B ; Environmental Friendly- EF ; Durability- D ; Hygienic- HG ;		
ii.	Value Codes: Hedonism- HD ; Power- P ; Self-direction- SD ; Achievement- A ; Security - S ;		
iii.	Relation score count: Indicates the direct and indirect relations of the mentioned elements within a given pathway. For instance, 277.97 score for beauty-hedonism pathway has 277 direct relations, and 97 indirect relations, giving a total of 374 relation score count		

Beauty - Hedonism Perceptual Orientation Pathway

From table 2 “beauty-hedonism” pathway is strongest in the beauty pathways pack with a relation score value of 277.97 and total score of 374 for floor finishes. This expresses the strength of the emphasis placed on having an aesthetically beautiful floor motivated by hedonic purposes. The beauty-hedonism pathway is intervened by two expected affordances (consequences), which also can be described as sub-pathways. This means that there are two sub-pathways (Table 2 & Figure 2); “beauty-appealing environment-hedonism” (B-AE-HD) sub-pathway; and “beauty - conducive environment-hedonism” (B-CE-HD) sub-pathway. Each of these sub-pathways has a strong linkage in the emphasis of each of the expected affordances by the respondents. The creation of a beautiful floor finish is expected to achieve an appealing and conducive indoor environment. The desire for beautiful floor finish is preferred to achieve an appealing housing environment; and a conducive housing environment reflected by the affordance elements “conductive house to live” which will “reduce tension and stress” of the housing user.



A = Attributes, C = Consequence, V = Value

Figure 2: HVM for Beauty – Hedonism Pathway (Source: Zinas 2012)

Having a floor that is beautiful creates an aesthetically pleasant housing space which can affect the wellbeing of the user. This finding within the context of visual perception can influence a positive effect in the health of the housing user as found by Evans and McCoy (1998); and Ulrich (1991); suggesting that there is a visual influence of the interior environment on an individual's level of stress, mental fatigue, and recovery from physical illness. This "visual influence" as argued by Hallsaxton and Burley (2011) is the "visual aesthetics of the interior environment", which they assess affects human well-being. Kaplan and Kaplan (1989) also found "elements within the spaces" to have the tendency to bring recovery to mental fatigue of housing users. Along these propositions, one respondent in my study put it this way:

"...a beautiful environment appeals to every human. No body wants to live in an environment that is not beautiful or not attractive. Home should be beckoning you; home should be inviting; home should be where you love to retire to; to come back to feel happy and feel comfortable, and feel beautiful. It is a place you will love to spend more time.... If you have a beautiful place, it will bring down your stress and blood pressure (laughs)".

The import of this statement reinforces the findings highlighted above, where a visually aesthetic interior environment is found to influence an individual's level of stress, mental fatigue and recovery from physical illness (Evans and McCoy, 1998; and Ulrich, 1991). The respondent sees a beautiful indoor environment as a stress-relieving and blood pressure balancing environment. This health-related body situation can be silent and sudden killers, which if managed (by an aesthetically pleasant housing environment) can enhance longevity of one's lifespan. The

statement also suggests that a beautiful indoor environment can enhance place attachment; which means that householders will conveniently stay and “spend more time” at home. This will encourage self-development indoor activities like reading, writing, watching programs on TV and exploring and surfing the internet. It will go a long way in self-discovery of inherent and hidden personal potentials which can be of worth to the society.

Discussion

The overall interpretation is that as the relation score of a given pathway is higher, it indicates the strength of the relationship of the linkages in the pathway. Tables 1 & 2 suggest that within the hygienic pathways’ pack, hedonism is the most important motivating value for hygienic floor finishes preference and choice as perceived by respondents, followed by achievement, power, and security in that pathways category. This perceptual orientation pathway is being intervened by 3 functional affordances of appealing environment (AE); saving resources (SR); and healthy environment (HE).

Beauty category pathways also indicate that hedonism is the most important motivating user value for preferring a floor finish that guarantees aesthetic beauty, followed by power, achievement, security and self-direction in that strength order. Having a durable floor finishes is motivated only by achievement user value, while the preference for environmental friendly floor finishes is motivated by user value, power. The most important pathways of hygienic-hedonism and beauty-hedonism with higher relationship score of linkages in their respective categories have been emphasized. Hedonism appears to have relation with the main attributes of beauty and hygienic; suggesting that preferences for floor finishes are majorly for hedonic purposes. It is important to emphasize that hedonism has been found to be the most significant influencing user value that determines decision making and most significant user perceptual orientation, which parallels findings by the research of Jusan (2007b). Power user value was also found as important influencing motivation in this finding.

In conclusion, the need for having a clean floor surface has been emphasized for this main abstract attribute since the daily contact and use of the housing space is most used, especially the living room floor, as argued by Aragones (2002). He argues that the living room is the place where the housing occupants do everything, and a place for receiving visitors and friends, thereby making it the most used in the house. Meesters (2009, p.70) also found that most activities performed in the house take place in the living. She identified eight activities mentioned 900 times by her respondents that take place in the living room. The activities identified include: “relaxing”, “eating”, “entertaining guests”, “being at the computer”, “children playing”, “being together with the nuclear family and various hobbies”. She argues that the living room is a multifunctional space.

The expected affordances of having an appealing environment that will be conducive to live for having a beautiful floor finishes (Table 1 & Figure 2) as emphasized in the choice processes by prospective housing users should be given consideration in floor finishes design decision making. Floor finishes should be

created in the design formulation that ensure that floors are aesthetically beautiful, guaranteeing pleasant and an appealing floor space and conducive to live in its environment. The outcome of this is the creation of an indoor housing environment that is comfortable to live, which will guarantee a sense of community for the family members since the environment will encourage a sense of place attachment, which implies that they will spend more time at home. This is very significant for designers and architects in their design decision making processes with regard to achieving an appealing housing interior floor space.

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