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Effect of Landscape on Consumers' Behavior in Shopping Malls: An Empirical Study of Shoprite Malls at Akure, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Consumer behaviors have become prominent in the business platform and related discipline from past to present. Being able to understand consumer behaviors and identify strategies in this direction has become the most important condition for survival in competitive conditions. This study, it is aimed to determine the relationship between consumption concepts and architectural discipline. Design criteria that increase and decrease consumption preference and quantity have been investigated by determining the extent to which the interior and exterior architecture via landscape affected the consumption habits. Relevant literature, observations, and conceptual survey of the daily shopping malls were conducted at Shoprite Mall Akure. The Data was analyzed using Structural Equation Model (SEM) via AMOS to measure the architectural impacts on consumer shopping patterns. Thus, the findings show that a desirable landscape improves consumers' patronage tendency in shopping malls. This implies that architectural training and practice are sacrosanct in human shopping tendency.

Keywords: Architectural training; consumer behavior; consumption concept; landscape; shopping mall.

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1. INTRODUCTION

A shopping mall can be regarded as several shops, one or more buildings forming a commercial complex of stores and shops representing merchandisers that encompass pedestrian circulation which connects various units such as restaurants, bars, and movie theaters. The needs for shopping in towns and cities necessitate the development of shopping malls for people's business comforts and other social economic activities.

Thus, the early shopping malls and business centers' planning and design often adopt the inward facing. The shops and stores follow the idea of encouraging consumers to shop within a controlled business environment. Big shops are attached with a store to cater to the storage of goods in most European cities; departmental stores of big sizes have become Institutions and good tourist attractions. Shopping malls in the present time has been high-tech commercial complex that offers good outdoor that provide micro-climatic environs for the users and showcase natural elements in supporting human behavioral pattern concerning their shopping activities. It encourages the shoppers to spend more time visiting and being involved in a variety of activities in the shopping mall.

In Nigeria, the shopping mall has become a commercial hub in big towns and cities. However, the ancient market shops are the exit but the shopping complex and plaza engaged more patronages due to the availabilities of various activities, amenities, security, and accessibility factors accompanying the shopping malls.

Therefore, the shopping mall has become very significant and a necessity for cities and urban social-economic growth that requires stakeholders' attention for its development.

2. LITERATURE REVIEW

Since the advent of democracy in the year 1999, Nigeria has witnessed a reasonable level of economic development notwithstanding other socio-cultural challenges experienced in the recent time. The development of big townships into cities and the establishment of higher institutions, good road networks, and hospitals in villages and townships support the rise of the middle class that requires daily shopping and social interactions. Therefore, the affirmation necessitates the development of shopping malls and modern plazas that houses stores, shops restaurant, parking, and an eco-friendly environment to enhance human co-existence and development. Thus, the following malls are earlier the Polo park mall, Kwara mall, Ikeja city mall, Tinapa, Enugu shopping mall and shopping places like Leventis and Kingsway have been in existence and functioning since the 1980s. The advancement in technology and global marketing has increased the demand for consumption and shopping. The shopping pattern in today's cities and urban centers has a strong attachment to the immediate environment and landscape to attract effective social cohesiveness of consumers.

Literature has proved that social-environmental factors can be easily influenced human behavioral patterns and emotional display (Chang et al. 2014; Chen & Hsieh, 2011; Baker et al. 1992; Baker et al. 1994; Kumar & Kim, 2014; Sherman et al. 1997). For instance, Sherman et al. (1997). It shows that environmental features in an environment have a great influence on the human cognitive response [1]. Social factor has a great tendency to control consumers' level of interaction, conversation, and the tendency and willingness to shop for more goods. Since environmental factors have a significant effect on the human social response, consumers' behavioral patterns can be encouraged and developed in a shopping mall with attractive environmental features, appealing architectural edifice, and landscape. A social factor has been established to have a relationship with the perception of the consumers towards the procurement tendency of products sold in a mall (Kumar & Kim, 2014; Baker et al. 1994; Chen & Hsieh, 2011). A shopping mall with well-landscaped enviros exhibits a good attractive tendency to consumers as shoppers often enjoy staying longer in a naturally conducive environment. Importantly, where buying and selling activities triumph. Landscape in the built environment provides eco-friendly vicinity and controls human movement, thereby reducing over-crowdedness [1], as crowdedness affects consumers' emotional state and shopping mood (Eroglu et al. 2005b; Pan & Siemens, 2011; Pons, Mourali & Giroux, 2014; Machleit, Eroglu & Mantel, 2000). Research has shown that consumers tend to shop more and exhibit a high level of comfort under well-controlled shopping centers, plazas, and retail markets (Machleit et al. 2000, Michon et al. 2005; Argo, Dahl & Manchanda, 2005; Eroglu et al., 2005a); [2] Pan and Siemens, 2011; Uhrich, 2011; [3-6].

The aforementioned shows the significance of the shopping concept and the shopping centers in the lives of the people. Shopping structures achieve its purpose by designing to meet society's needs and desires. The search for a place where people can meet the need for shopping as well as traveling to enjoy in their spare time or leisure time plays a significant role in shaping shopping centers and malls (Uslu).

This stud is aimed to investigate consumption concepts, consumer behavior, shopping centers, and architectural design, and evaluation the effects of the designs on consumer behavior.

3. RESEARCH METHODOLOGY

The activities of man in public space generate social interaction among users which reflects the public space environmental comfortability and psychological image of the physical environment (Carmona et al. 2003; Pasaogullari and Doratli, 2004; Kang, 2006; Hau et al. 2012; [7,8]. Importantly, Erkip [9] and Whyte [10] argue that accessibility is primary in measuring the degree of public space utilization in an environment while Pasaogullari and Doratli (2004) posits that in addition to the accessibility of public space, the quality of public space, comfort, facilities and amenities [11], and attractiveness of public space were listed as contributing factors of public space utilization as we considered collective mind and social cohesion as a determining factor of consumers shopping behavior.

As the study was designed to be comprehensive, the methods to be employed. consumers perceptional survey via structured questionnaires.

i. Distribution of questionnaires to the users of the shopping mall to determine their level of satisfaction with the landscape provided.
ii. Study of the quality and quantity of spaces provided for shopping and circulation and the surrounding environment.

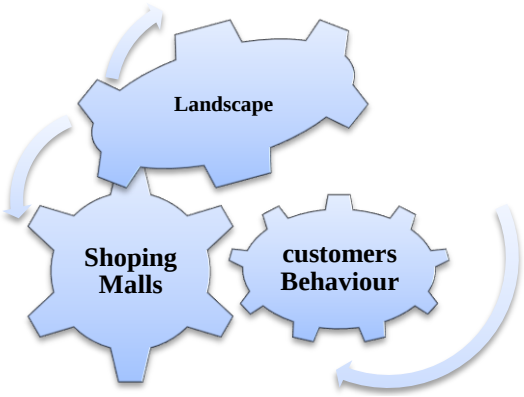

Fig. 1. Interrelationship among shopping mall actors

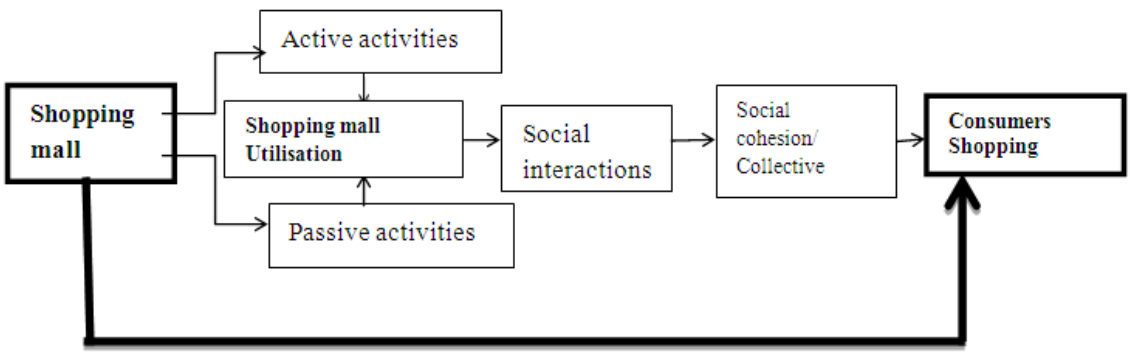

Fig. 2. Landscape in Public space and consumers behaviour Model in shopping malls

3.1 Hypothesis Development

The degree of utilization of Landscape in public space affects group social ties (ST) and is reflected in the community's collective mind (CM). It has been postulated that the quality of public space Landscape (QTP), comfort derived in public space Landscape (CTP), the attractiveness of public space (ATP), and its accessibility (ACC) determine public space utilization (Passaugulari and Doratli, 2004). However, O'Reilly et al. (1998) opined that a group becomes satisfactory to its environment and fellow members when they exhibit a good degree of cohesive affinity. Group cohesiveness is associated with individual members within a group uniting in pursuit of a collective goal [12]. Huang [13] averts that social ties and collective minds predict group social cohesion. Collective bonds and social unity can lead to group cohesiveness. It reflects a common community connection that facilitates participation and willingness to help others as a result of bonds and trust that were developed through consistent interaction [14] that is obtainable in public spaces (Carmona et al. 2003; Oloruntoba et al. 2013b). The aforementioned factors are exhibited in the public space Landscape as expected in shopping malls. Hence a total of 211 structured questionnaires were administered by the ShopRite consumers.

Therefore, a confirmatory analysis model was developed (Fig. 3) and hypotheses that:

H1- Quality derived in landscape (QTP) can positively influence the Social ties of consumers (ST).
H2- Quality derived in landscape (QTP) can positively influence the Collective Mind of consumers (CM).
H3- Comfort derived in landscape (CTP) can positively influence the Social ties of consumers (ST).
H4- Comfort derived in landscape (CTP) can positively influence the Collective Mind of consumers s (CM).
H5- Attractiveness of landscape (ATP) can positively influence the Social ties of consumers s (ST).
H6- Accessibility to landscape (ACC) can positively influence the Social ties of consumers (ST).
H7- Attractiveness of landscape (ATP) can positively influence the Collective Mind of consumers CM.
H8- Accessibility to landscape (ACC) can positively influence the Collective Mind of consumers CM.
H9- Social ties of consumers (ST) can positively influence the Collective Mind of consumers (CM).

Thus, the study develops a model to validate the influence of social cohesion on the collective mind of consumers to buy and sell in the shopping mall. Having developed a model to validate the hypothesis, the model was validated to ascertain the study research aim and addresses the hypotheses. The level of shopping mall landscape/ open space utilization concerning the degree of consumers' behaviors was given research analytical consideration using survey questionnaires and observations.

Thereafter, based on the administered survey questionnaires, variables to variable test was carried out to verify the assumptions of public space in fostering social cohesion, and further, validate the potential influences of social cohesion on consumers' behaviors development as postulated in the literature. Since this study hinged more on the quantitative approach, a variable-to-variable test was done to prepare a better research pedestal and supports for the research questions and hypothesis proposed. Thus, public space utilization variables via landscape (constructs) were tested in relation to social cohesion variables (constructs) to establish the existing interrelationships (Fig. 3). The aforementioned factors are exhibited in the public space Landscape as expected in shopping malls. Hence, a total of 200 structured questionnaires were administered by the ShopRite consumers in Akure, Ondo state, Nigeria.

3.2 Demographical Survey

Demographic factors of age, sex, education, gender, working status, duration of residents, evidence of public space usage, types of public space visited, time and days of utilizing public space were used to investigate their impact on the public space utilization.

3.3 Gender

The respondent’s gender was investigated to know the gender distributions of the Landscape (public space) users in the study area. The population of the female users of public spaces that responded to the structured survey questionnaires was 79 out of the 200 total

respondents. This makes the females 39.5% of the total respondent. Hence, the public space users in the study area were more male having exhibited a higher responding frequency of 121 making 60.5% of the total respondent population.

3.4 Respondent's Age

The respondent's ages exhibited varying differences in the classified age brackets. The respondents that fall within the age group of 18 years to 29 years recorded 66 numbers of the population, the respondents that fall within the age of 30 years to 59 years recorded 121 numbers of the population while those respondents of 60 years and above recorded 13 numbers of the population. However, the majority of respondents in the study area are within the age group 30 years to 59 years follows by the age group of 18 years to 29 years bracket.

3.5 Education Status

The educational status of the respondents needed to be known as a way to establish that the respondent falls within the high literacy of the population. In this study, the highest population of the respondents indicated acquiring a minimum of university degree certificates or their equivalent. This group was having a population frequency of 65 resulting in 32.5% of the total respondent population. The respondents that had registered professional certificates only were having a population frequency of 16 resulting in 8% of the total respondents. The respondents that were having high school certificates and undergraduates were 70 and 49 frequency population respectively resulting in 35% and 24.5%.

3.6 Time of Utilizing Public Space

This study takes into consideration the period of the day and night at which the respondents do visit and utilized the respective public spaces. Thus, it was indicated that most of the respondents in the study often utilized public spaces between the hours of 6.00 pm to11.00pm of the day. These respondents recorded 110 populations of 55% of the total respondent population. The respondents that utilized public space between the hours of 12.00noon to 5.00 pm recorded 55 populations of 27.5% of the respondent population. The respondent's utilized public space between the hours of 6.00 am to 11. 00 am, and between the hours of 12.00 am to 5.00 am recorded population frequency of 15 and 20 respectively. This amounted to 7.5% and 10% of the total respondent's percentage. This implies that consumers often utilized shopping malls during their free hours and after their daytime duties.

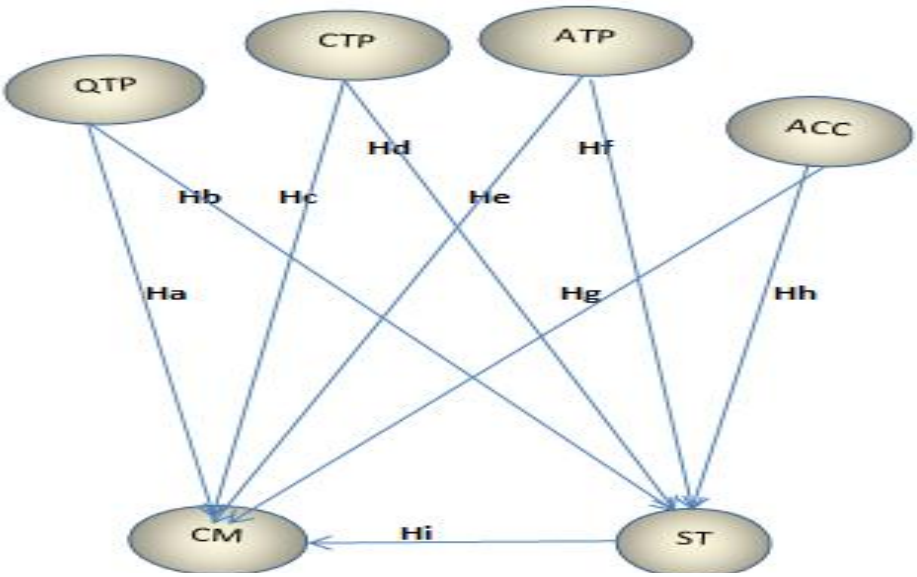

Fig. 3. Proposed confirmatory research model of Landscape in public space and consumers' behavior in shopping (variables to variables)

Note: Comfort derived in landscape = CTP, Quality derived in landscape = QLP, Accessibility to landscape = ACC, Attractiveness of landscape = ATP, Social ties = ST, Collective Mind of consumers behavior to shopping = CM, Social cohesion = SC

4. DATA ANALYSIS AND RESULTS

This study carried out a test to examine the effects of Landscape utilization variables (accessibility, comfort, attractiveness, and quality) on consumers' social cohesion variables (collective mind and social ties). Therefore, the convergent validity of the variables was analyzed and followed by testing of data reliability. Thus, the significance of the model was determined by using SEM as a reliable tool to test the causal relationships between the variables that have multiple indicators [15]. AMOS was applied (as a structural equation-modeling tool) in this analysis to achieve a detailed and graphical presentation of the findings. The validity tests performed on all the variables indicate that the indicators of the variables exhibit a factor loading value that is higher than the minimum recommended value of 0.7 affirmed by Nunnally and Bernstein [16].

Thus, all the average variance extracted (AVE) values exceed the minimum recommended value of 0.5 Bagozzi and Yi [17], which implies that the measure exhibits sufficient convergent validity (Table 1). As such, all the factors reflect unidimensionality. The measurement model variables were analyzed using confirmatory factor analysis (CFA) as recommended by [18]. All factor loadings exceeded 0.5 at the significance level of 0.001, the observed normalized χ^2 for the measuring model was 2.183 (χ^2/df = 2.183; where df = 180), which was less than 3.0, a good value as recommended by Bagozzi and Yi (1988). The goodness of fit index (GFI) was 0.853 and the adjusted goodness of fit index (AGFI) was 0.811, both exceeding 0.8, which is recommended as a marginal acceptable value (Chau and Hu, 2001). The comparative fit index (CFI) was 0.932 and it exceeded the recommended minimum value of 0.9 (Chau and Hu, 2001). The root means square error of approximation (RMSEA) was below the maximum cutoff level of 0.08 (Browne and Cudeck, 1993) at 0.075. Therefore, the collective output of this result indicates that the measurement model exhibited a good degree of acceptability and it provides support for the structural model's validity. Figure 4 depicts the analysis of this result while the path loadings are further illustrated in Table 1.

This study considered the path loadings of approximately 0.2 and above as a practically significant loading as recommended by Cohen [19]. Hence, the results indicate that the quality of public space (QTP) is practically significant to CM and ST exhibits path loadings of 0.2 and 0.31 on the collective mind (CM) and social ties (ST), respectively. The comfort derived in public space (CTP) exhibits path loadings of 0.38 and 0.31 on CM and ST, respectively, which implies that both CM and ST can be influenced by CTP. The attractiveness of public space (Landscape) (ATP) has a significant influence on both CM and ST and it exhibits 0.18 and 0.25 path loadings on CM and ST, respectively. Accessibility to Landscape (ACC) has a path loading of 0.58 on ST and depicts a good significance level but it has 0.04 path loading on CM, which indicates a weak influence. However, a social tie of consumers (ST) was found to demonstrate a reliable influence (0.25 path loading) on the collective mind of consumers to selling/ Buying (CM).

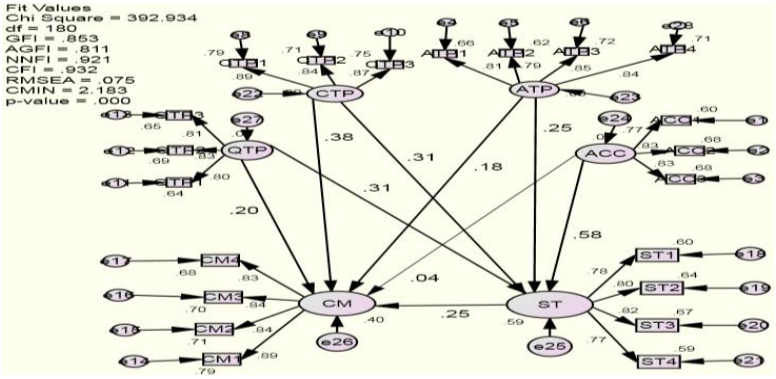

Fig. 4. Results of the confirmatory analysis model

Note: Comfort derived in landscape = CTP, Quality derived in landscape = QLP, Accessibility to landscape = ACC, Attractiveness of landscape = ATP, Social ties = ST, Collective Mind of consumers *behavior to shopping = CM, Social cohesion among* consumers *= SC*

Table 1. Measurements of variance analysis and reliability

Variables and Indicators	Item Loading	T-value	Cronbach's Alpha	Average Variance Extracted	Composite Reliability
Accessibility	0.774		0.849	0.655	0.851
ACC1					
ACC2	0.827	11.669			
ACC3	0.826	11.664			
Attractiveness	0.815		0.849	0.680	0.895
ATP1					
ATP2	0.790	12.601			
ATP3	0.850	13.823			
ATP4	0.843	13.698	0.854	0.749	0.900
Comfort					
CTP1	0.889				
CTP2	0.840	15.453			
CTP3	0.867	16.122			
Quality			0.899	0.662	0.854
QTP1	0.800				
QTP2	0.832	11.885			
QTP3	0.808	11.687			
Collective Mind			0.919	0.716	0.911
CM1	0.887				
CM2	0.841	16.001			
CM3	0.836	15.855			
CM4	0.826	15.506			
Social Ties	0.778		0.900	0.626	0.870
ST1					
ST2	0.801	11.936			
ST3	0.817	12.202			
ST4	0.769	11.408			

Note: Comfort = CTP, Quality = QLP, Accessibility = ACC, Attractiveness = ATP, Social ties = ST, Collective Mind = CM, Social cohesion = SC

Table 2. Summary of structural model results

Hypothesis	Hypothesized path	Path coefficient	Results
H1	QTP can positively influence ST.	0.20	Supported
H2	QTP can positively influence CM.	0.31	Supported
H3	CTP can positively influence ST.	0.38	Supported
H4	CTP can positively influence CM.	0.31	Supported
H5	ATP can positively influence ST.	0.18	Supported
H6	ATP can positively influence CM.	0.25	Supported
H7	ACC can positively influence ST.	0.04	Not Supported
H8	ACC can positively influence CM.	0.58	Supported
H9	ST can positively influence CM.	0.25	Supported

Note: Comfort derived in landscape = CTP, Quality derived in landscape = QLP, Accessibility to landscape = ACC, Attractiveness of landscape = ATP, Social ties = ST, Collective Mind of consumers behavior to shopping = CM, Social cohesion among consumers = SC

5. DISCUSSION

The findings of this study demonstrate that Landscape / Public space measuring variables were strongly associated with the consumers' social cohesion measurement variables (Ha, Hb, Hc, Hd, He, Hf, and Hg). This implies that the factors that are responsible for social cohesion in shopping malls are influenced by landscape (public space) variables (QTP, ATP, CTP, and

ACC). In Tables 1 the resulting outputs indicate that only the accessibility to Landscape does not have a strong influence on CM (Hg) but it demonstrates a strong influence on ST (Hh). Interestingly, this research model further presents that people's ST has a practically significant influence on CM (Hi), which suggests that the weak relationship between ACC and CM can be considered insignificant as ST will eventually influence the people's collective mind of consumers in a shop in Malls (CM).

This result suggested that, in Cities, users of Landscape meet to have social contact that triggers social cohesiveness via social interaction. The Landscape / public space attributing variables of comfort, quality, and attractiveness in shopping malls such as the aesthetics, amenities, landscape, facilities, and safety have a significant influence on the social ties and the collective mind that reflects the group social bond and share goal respectively. Social bond is developing among the consumers in shopping malls as a result of their social interactions and engagement in social spaces, importantly in public spaces. However, user access to public spaces in Malls exhibited the potential to influence social ties that are associated with their social bond but are incapable to trigger the user's collective mind. This is because a group collective mind that reflects their shared goal may require users to have interest and deriving social and mental gains in public space to develop group share goal as a result of the consistent social bond. Therefore, accessibility to Landscape /public space in shopping malls cannot independently influence the collective mind as reflected in Fig. 4 but facilitates social ties.

This finding is consistent with past studies that postulate people who visit public spaces, particularly those who involve in social activities in a public space of acquiring social bonds (Peters et al., 2010; [20]; Macinko and Starfield, 2001). It affirmed that architectural training and practice have a significant influence on human shopping potency. It postulates that landscape features and elements in a shopping mall and business centers exhibit influencing factors on human behavioral patterns towards shopping.

6. CONCLUSION

A shopping mall exists to serve as an apex for all shopping activities and provide a comfortable atmosphere for social and business interactions among residents and international visitors. This study intends to examine the effect of landscape on consumer behavior in shopping malls. The findings are summarized as follows:

Landscape factors and configuration characteristics have an impact on the behavior of shoppers. If shoppers feel relaxed and derived comfort in the shopping mall landscape and its natural environment, shoppers become more interested to shop in the mall. As such, an adequate Landscape should be given to the physical environment of a mall to allow for better shopping.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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