
Merchandising Impact on Consumer Purchasing Behavior among Neighborhood Grocery Stores in Kumasi Metropolis

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Abstract:

This study explores merchandizing practices and their impacts on customer purchase behaviour across four neighbourhoods within the Kumasi Metropolis. A sample of 134 adults was selected through a disproportionate random sampling of adults leaving in the four communities after shopping from key grocery stores within the neighbourhoods. Generally, the study revealed that customers perceive grocery store operators make adequate use of merchandizing practices, accounting for 44.5% variation in consumer purchasing behaviour. Hence it's recommended that grocery store operators pay close attention to merchandising, and also incorporate cultural, social, personal, and psychological factors in executing any merchandizing programme within their stores.

Key Words: Purchase behaviour, Merchandising, Grocery, Promotional signage, Neighbourhood retail.

1.0 Introduction:

The ultimate aim of every business is to maximize profit and minimum cost (Noodle Push, 2014). In the mist of competitors, firms need good marketing strategies to entice people to patronize their products or services. The right interplay of the marketing mix is crucial for a product to succeed in the market. The four Ps which include the product, price, promotion and place must be carefully managed. The product must be sold at a profitable price at the right place and attract customers through promotion. One of such sales promotional strategies is merchandising.

Merchandising include all the activities a retailer performs in and around the shop to create an attractive shop environment that has the potential of attracting customer to buy a particular product in the mist of its competitors.

Bastow-Shoop et al (1991), defined merchandising as “everything the customer sees both exterior and interior that creates a positive image of a business and it results attention, interest, desire and action on the part of the customer”. It is important to note that in this study, the word customer and consumer has been used interchangeably.

Retailing has become a specialised activity in marketing Kotler et al, 2006; it has come along with many strategies for survival. This is partly due to the complexity of modern consumers and keen competition that exist in the retail space.

Consumers or shoppers of today may demand comfort and convenience while shopping (Kouchekian et al, 2012). This has led to the retailer providing variety of extra services to the consumer. In the supply side for example, multinational companies such as Nestle, Unilever and PZ Cussons ‘fight’ for ‘hot spot’ in shops stores, where they brand the allocated shelves with their strips and then display their products in those shelves.

In the light these huge amounts of resources invested in merchandising activities, this research sought to explore merchandizing practices and their impacts on customer purchase behaviour among Neighborhood Grocery Stores in Kumasi Metropolis.

Literature Review:

2.0 The Concept of Merchandising:

Merchandising include all the activities a retailer performs in and around the shop to create an attractive shop environment that has the potential of enticing customer to buy a particular product in the mist of its competitors. According to Ebster and Garaus (2011), merchandising is defined as the art and science of attractively presenting a product in an appealing way. This implies that merchandising is a way of communicating with customers through presentations and images. Merchandising is also defined as the display of product to make them appealing, attractive, engaging, and enticing to shoppers in a retail store (Comyns Bailey, 2012).

Merchandising begins with the store building itself Azmiya et al (2011), then how managers design the in-store promotional activities to trigger purchasing behaviour (Francis, 1984).The universality of merchandising practices and the predictability of customers response to it has made it somewhat a scientific art (Francis 1984) and it is in this view that the notion of silent salesman has come to be applied to all forms of promotion. Merchandising therefore play two main roles which are: enhancing visibility and making the merchandised product appealing to the customer to enhance the chances of the product being bought.

This research hence sought to analyse the impact of merchandising on customer purchase behaviour in neighbourhood grocery stores.

2.1 Evaluation of the Impact of Merchandising:

According to Derry et al (2012), there are two perspectives for evaluating visual displays in stores and by extension merchandising. These are the utilitarian and the hedonics aspects. The utilitarian perspective is related to the actual needs of the customer, for instance the garment deterioration, seasonal changes and occasions. The hedonic aspects perceive that female images have a significant influence on the interpretation and acceptance of visual displays. In another angle McCant and Hefer (2013), explored customers’ perception about merchandising and further determine which aspect of visual merchandising are important to them (the customers), established colour as the most prominent visual stimulant because of its ability to create visual attraction and stimulation. Other aspects were positions and neatness of the displays, the effective and efficient use of space, and lighting. Visual merchandising therefore should be designed to provide information about the products sold in the store. Simon Knox (1990) found that from a behavioural perspective, there are two main forces that act on the consumer, that is the product itself and the situation

which he referred to as stimuli. The consumer responds to the product and the prevailing situation and then makes a purchase decision.

2.2 Retailing and Merchandising:

Owing to the competitive nature of today's markets and the continuous sophistication of customers, retailers cannot afford not to be dynamic in the process of doing sales, this especially so for fast moving consumer groceries. Customers of neighbourhood grocery stores now have variety of shops to buy from irrespective of their demographic features or level disposable income. Much attention now is paid on the sales atmosphere and environment and how they suit the taste and preferences of the customer. Kotler (1973) explains that, the atmospherics implies the conscious effort made to design the shop and its immediate surroundings to create an effect on the customer. That is, working on the emotions of the purchaser to increase their chances of buying from the shop.

Extension of Kotler's opinion, Donovan and Rossiter (1982) came up with other variables such as the layout and architectural plan which they referred to as physical in store variables and also the behaviour and calibre of people which they term as social factors. These two variables to some extent are determinant factors on the perception and opinions of customers about the shop and extensively the retail environment.

Bastow-Shoop et al (1991), believes that everything that the customers see either exterior or interior of the shop that creates a positive image in the minds of the customers leading to creation of the awareness, interest and desire to buy from the shop can be termed as merchandising.

Merchandising from the point of view of the customer makes the shop attractive, increases the confidence and trust the customer develops for the shop, and creates an impression on the quality of the products being retailed, this then may reflect on their buying pattern and also determine the chances of retaining such customers (Bakamistoso, 2000).

Derry et al (2012), in their study of how merchandising affects the customer's affective response found that it is necessary to set some guidelines to help evaluate the visual stimulus in stores. According to the study carried in the Indian apparel market, display element that seem to portray feminine sexuality such as colour, lighting and props tend to trigger negative affective response and this has consequence on the customers purchase intentions. On the basis of this, it can be said that visual merchandising can be culturally sensitive.

Babin et al (2003) believe that lighting and colour combinations can increase the purchase intentions of the customer at the shop once they enter the shop. Therefore both interior and external elements of merchandizing contribute to the creation of favourable atmosphere for the consumer shopping experience.

Beside the visible elements there are intangible or invisible factors like fragrance (Fiore et al, 2000) and nature of music played in the shop can affect the cognitive activity of the shopper Chebat et al (2001).

2.3 Consumer Purchase Behaviour and Patterns:

Consumer behaviour according to Kotler and Keller (2012), "is the study of how individuals, groups, and organisations select, buy, use and dispose of goods, service, ideas, or experiences to satisfy their needs and wants." Businesses that stride are those whose owners actually pay attention to both the theories and realities of consumer behaviour. The buying behaviour is associated with the process of deciding, the steps followed to acquire or buy a product and the art of using the product. Actual purchasing is only one of the stages of the consumer buying process. There are six interrelated stages consumers go through in order to make purchase. Brown (2006) stated that not all consumer purchase decision always involve all the six steps. The degree of complexity determines the number of steps to be followed. Also, not all the decision process

eventually leads to actual purchase. These processes are problem recognition, information search, and evaluation of alternatives, purchase decision, actual purchase and post purchase evaluation. It is essential that business owners understand why customers make the purchases, the factors that influences consumer purchase and finally the changing expectation of customers that requires that businesses owners are able to respond positively to the dynamics of the consumer. It is worth mentioning that the not all the purchases that the consumer moves through all the stages outlined above, it may depend on the pattern of the purchase. This ranges from routine response behaviour which does not require any serious decision, limited decision behaviour, extensive decision making which takes the consumer through all the six processes and impulse buying which just happens on the spur of the moment (Brown,2006).

2.4 The Impact of Merchandising on Customer Purchase Behaviour:

Companies and shop owners use merchandising as a tool to attract customers. This may lead to the customer making unplanned purchase. Some activities that may attract customers include promotions, sign boards, the atmosphere, and arrangement of shelves, section divisions and cleanliness of the shop. These factors contribute to customers buying decisions.

A couple of authors have established, a direct relationship between window display, floor merchandising and impulse buying (Mehta and Chugan, 2012; Bashar and Ahmed, 2012; Sujata et al 2012). However in all the studies mentioned above, store display and impulse buying did not correlate.

Ridimi et al (2011) studied merchandising techniques and its impact on purchase intentions in supermarkets. The merchandising techniques considered include store layout, colour, product display, music, lighting and cleanliness. These findings showed that there is no relationship between store layout and patronage.

All these results were established in advanced economies this research seeks to establish such relationship in a third world country Ghana to understand how customers respond to merchandising in grocery stores.

2.5 Retail Stores Atmosphere and Customers Purchase Behaviour:

Many scholars agree that there is a direct relationship between retail stores atmosphere and customer retention. When there is an enticing, convenient and comfortable shopper environment, there is a higher likelihood that customers may spend a lot of time (Chain Store Age, 2004; Turley and Milliman (2000), and visit the shop again. What is rather not explicitly certain is the extent to which this translates into sales.

Some of the determinants of the consumer buy decision in the grocery stores as reported by Kouchekian and Gharibpoor (2012) include the shop layout, the lighting, the store design, the cleanliness and the height of shelves.

Merchandising in the neighborhood grocery shops in Ghana is so essential that renowned companies such as Unilever Ghana Ltd, Nestle Ghana, PZ Cussions, just to mention but a few have employed full-time merchandisers whose job description is to visit these neighborhood grocery shops and arrange their products to ensure on shelf availability and visibility. The main aim of this is to entice consumers to choose their products over that of their competitors.

From the foregoing literature, it can be concluded that, the store environment play a significant role of attracting customers into the retail shops in the neighbourhood.

2.6 Conceptual Framework of the Study:

Merchandising has been defined as any form of in-store promotional activity designed to trigger customer purchasing behaviour. The customer purchasing behaviour entails the process of identifying a need and the

steps followed to acquire the needed product as well as the art of using and disposing off the used product. Owing to competition, merchandising has been adopted as a way of enticing potential customer to visit a store and subsequently buy from the shop. It is a way of giving customers a comfortable and convenient shopping experience to improve their chances of revisiting the store to make a repeated purchase. Activities such as window display, in-store form/ mannequin display, promotional signage and floor merchandising are embarked on by shop owners with the view to boost sales. These merchandising activities do not stand alone; the shop owner has the discretion to choose which combination of activities best fit the shop base on the product lines available for sale. A combination of any of the merchandising activities has the potential of attracting customers to the store.

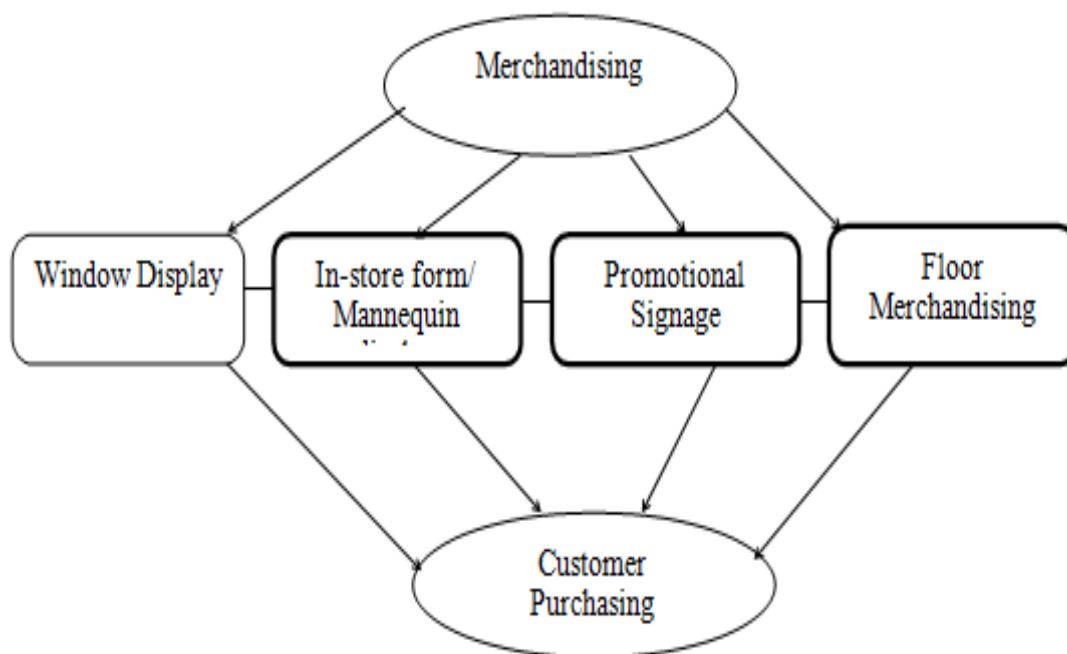


Figure 2.1: Conceptual framework of the study

Source: Adapted from Mahesh Gupta (2010)

Research Method:

3.1 Introduction:

This research aims at studying the impact of merchandising on consumer purchasing behaviour. Four types of merchandising activities were considered as independent variables that were used to establish a relationship between merchandising and customer purchasing behaviour as dependent variable. These sets out four hypotheses that were tested:

H1: Customer purchase behaviour is influenced by window displays.

H2: Customer purchase behaviour is influenced by in-store form/ mannequin display.

H3: Customer purchase decision is influenced by floor merchandising.

H4: Customer purchase decision is influenced by promotional signage.

Hypothesis 1 was constructed with the aim to establishing the relationship between window display and customer purchasing behaviour. Hypothesis 2 was designed to examine whether or not there is a relationship between in-store form/mannequin display and customer buying behaviour. Hypothesis 3 designed with the

aim of studying if there is a relationship between floor merchandising and customer purchasing behaviour. Finally, Hypothesis 4 was constructed to find out whether or not there is a relationship between in-store promotional signage and customer purchasing behaviour.

3.2 Research Design:

The research employed survey as the instrument in undertaking the study. The research questions were adopted questions from Jiyeon, 2003. The study was centred on the effect of window display, in-store information, floor merchandising and promotional signage impact on customer purchase behaviour. These are the major merchandising activity in the neighbourhoods under study.

The questionnaire was divided into four main sections to solicit information on background of respondents, commonly known merchandising practices, purchasing patterns and behaviour and customers' satisfaction levels as far as merchandising is concern. A five-point Likert scale with the range from never=1 to frequently=5 was used to measure the four variables.

3.3 Population of the Study:

The population of the study was made up of a large collection of individual consumers or customers of neighbourhood retail stores. For the purpose of this study, all individuals living within the selected suburbs, who shop at various neighborhood grocery stores, were considered as part of the population.

Kumasi Metropolis is a cosmopolitan city with disparities in terms of the purchasing power and ways of life. The 2010 Population and Housing Census showed that there are 2,035,064 people living in the Kumasi metropolis, 972,258 are male and 1,062,806 are females. The intercensal growth rate was pegged at 2.7%. Although the population size may be quite large, it is only a small percentage of them that make purchase decision. Mostly adults buy and provide for their dependents. The researchers therefore aimed at comprehensively studying the purchase behaviour of varied customer-base in terms of their purchasing power or income levels, whether they live in the elite or well organized neighborhood, semi-structured neighbourhood or slum dwellers. To fulfil the mentioned objective we selected Amakom, Buokrom, Kentinkrono and KNUST Campus. The population is estimated to be 10% of the total population within the Kumasi metropolis. These suburbs have relatively different subcultures and way of life. For this reason, it is perceived that, their appreciation of merchandising may vary, which will consequently reflect on their purchase behaviour. In this case the results may be generally appreciated by all as a true representation of customers' opinion, in respective of the neighbourhood the shop is found within the Kumasi Metropolis.

3.4 Sample/ Sampling Technique:

A sample of 134 was selected through a disproportionate random sampling technique of all adults leaving in the four communities. This was used because of the varied nature of the units within the stratum (Parasurama et al, 2007).

3.5 Measurement of Variables:

3.5.1 Dependent Variable:

The dependent variable of this study was customer purchasing behaviour. Five main questions were asked in the questionnaire, to measure how often merchandising influence customer purchasing behaviour. These questions were developed based on the previous studies conducted by Jiyeon (2003) on impulse buying behaviour among students influenced by visual merchandising. The responses were measured with the aid of a five-point Likert scale. The researcher rated 1 to signify that the customer purchasing behaviour has never

been influenced by merchandising and the rate of 5 meant that customer purchasing behaviour is frequently influenced by merchandising.

3.5.2 Independent Variable:

The independent variables considered for the study were four types of merchandising, namely: window display, in-store form/mannequin display, floor merchandising and lastly promotional signage. These variables were hypothetically selected as having impact on customer purchase behaviour. Responses were recorded with the aid of the five-point Likert scale with option 1 meaning the independent variable had no influence and 5 meaning the independent variable frequently influence the customer purchase behaviour.

3.6 Data Analysis Method:

Both descriptive and inferential statistical tools were employed. Specifically, frequencies, means, standard deviation, t test, correlational and regression analysis were used. Statistical Package for Social Science (SPSS) software was used for data analysis.

Data Analysis, Findings, and Discussions:

4.1 Introduction of Data Analysis

The main focus of this study has been to evaluate merchandising practices and their effects on customer purchasing behaviour among neighbourhood grocery stores. In addressing this objective, 150 customers were conveniently sampled from 4 main suburbs within the Kumasi Metropolis and questionnaires administered.

These respondents were selected at the premises of some selected neighbourhood grocery stores found within the selected localities. Most of these respondents had just come out of the shop and as such the researchers believed they were the right people to complete the questionnaire since they had a fresh shopping experience.

Given the required sample size, an effective response of 134 was obtained, constituting 89.33% response rate. The details on the demographic characteristics of the respondents are presented in section 4.2 below:

4.2 Demographic Background of Respondents:

The results produced in table 4.1 represent the demographic characteristics of the customers who participated in the study. Out of the 134 respondents, 55.2% were males. In terms of the distribution of their ages, almost half (49.6%) of them have ages falling between 21-30 years. The rest 24.8%, 15.8%, and 9.8% respectively have ages within 31-40years, 20years or below, and 41years or more.

Given the 4 broad suburbs chosen for the study, majority (32.8%) of the respondents were chosen from Amakom. The next 26.9%, 20.1%, and 11.2% responses were taken from neighbourhood customers from Buokrom, Kentenkrono, and KNUST respectively. 9.0% of them came from none of the above suburbs.

Further, more than 1/3rd (77.4%) are economically employed, with greater proportion (70.9%) working in the private sector. With respect to their income levels 11.6% earn less than GH200, 40.2% GH¢200 to 499, 33.9% GH¢500 to 799, and 14.3%, earn GH¢800 and above.

For the purposes of this study, the respondents' competence was assessed in terms of their ability to read and understand (i.e. level of education) and provide objective responses to address the needs of the study. The responses collected showed that most of them (64.9%) have gotten to the tertiary level, which provided a level of confidence in the responses provided. Also, with respect to the distribution in the other demographic variables, it could be seen that there were not much variability in terms of the frequencies obtained for the various categories. In the subsequent subsections, the effects of these variables on the key constructs of the study are evaluated.

Table 4.1: Demographic Breakdown of Respondents

		Count	Per cent
Gender	Male	74	55.2%
	Female	60	44.8%
	N	134	
Age (years)	20 or below	21	15.8%
	21-30	66	49.6%
	31-40	33	24.8%
	41 or above	13	9.8%
	N	133	
Place of residence	Amakom	44	32.8%
	Buokrom	36	26.9%
	Kentenkrono	27	20.1%
	KNUST	15	11.2%
	Others	12	9.0%
	N	134	
Level of education	Secondary/High school	47	35.1%
	Tertiary	87	64.9%
	N	134	
Employment status	Unemployed	30	22.6%
	Employed	103	77.4%
	N	133	
Sector of employment	Public	30	29.1%
	Private	73	70.9%
	N	103	
Average monthly income/allowance	Less than GH¢200	16	14.3%
	GH¢ 200 to 499	45	40.2%
	GH¢500 – 799	38	33.9%
	GH¢ 800 or above	13	11.6%
	N	112	

Source: Field study (2015)

4.4 Merchandizing Activities among Neighborhood Grocery Stores

The response of major merchandising activities as specified for study is given in table 4.2 below. The respondents were asked to indicate which of them is/are mostly practiced by their neighbourhood grocery stores.

Table 4.2: Type of Merchandizing Commonly Practiced Activities

		Responses	
		N	Per cent
Type of Merchandizing	Window display	103	26.3%
	In-store form/mannequin display	112	28.6%
	Promotional signage	100	25.5%
	Floor merchandising	77	19.6%
Total		392	100.0%

Source: Field study (2015)

Per the results shown in table 4.2, most of the respondents indicated that within their neighbourhoods, in-store form/mannequin display (28.6%) is the most commonly merchandizing activity, followed by window display 26.3%. Also, some of the respondents indicated that promotional signage (25.5%) and floor merchandizing (19.6%) as commonly practiced by grocery store operators within neighbourhoods.

These findings suggest that all the above four evaluated merchandizing activities are, to a greater extent, practiced among grocery stores within the Kumasi Metropolis, particularly, across the suburbs considered in the study, given that, at least, more than 50% cases indicated having seen each of these four practices within their localities. In order to evaluate the extent to which these merchandizing activities are practiced among the suburbs, a cross-tabulation analysis was employed. Table 4.3 shows the results generated.

Table 4.3: Merchandizing in suburbs

Merchandizing practices		Place of residence					Total
		Amakom	Buokrom	Kentenkrono	KNUS T	Others	
Window display	Count*	35	26	20	10	12	103
	% within Merchandizing	34.0%	25.2%	19.4%	9.7%	11.7%	
In-store form/mannequin display	Count*	36	31	24	11	10	112
	% within Merchandizing	32.1%	27.7%	21.4%	9.8%	8.9%	
Promotional signage	Count*	34	28	18	9	11	100
	% within Merchandizing	34.0%	28.0%	18.0%	9.0%	11.0%	
Floor merchandising	Count*	28	19	15	8	7	77
	% within Merchandizing	36.4%	24.7%	19.5%	10.4%	9.1%	
Total	Count*	133	104	77	38	40	392

* Responses

Source: Field study (2015)

The responses obtained concerning the distribution of merchandizing activities across the suburbs showed that for each type of merchandizing, Amakom is perceived to be the location where grocery stores engage in

much merchandizing in the area of Window display (34.0%), in-store form/mannequin display (32.1%), promotional signage (34.0%), and floor merchandizing (36.4%). This followed by Buokrom and then Kentenkrono.

4.5 Satisfaction that Customers Derive from Merchandising in Neighbourhood Grocery Stores

The study was also set out to evaluate the level of satisfaction that customers derive from merchandizing activities practiced by neighbourhood grocery stores. This evaluation was performed using a 5-point scale: where 1=strongly disagree, 2=disagree, 3=indifferent, 4=agree, and 5=strongly agree; across the 4 dimensions of merchandizing activities already discussed above. The results obtained are shown in tables 4.4 to 4.9 below.

The results shown in table 4.4 reveal that the average respondent, to some extent, is satisfied with window display merchandizing practices carried out by neighbourhood groceries, given that the overall mean score (M=3.61; SD=.818; N=134) was higher than the threshold of 3.00, which indicates ‘indifference’ in the respondent’s scores on the 5-point agreement-disagreement scale adopted.

Table 4.4: Customer Satisfaction_ Window Display

Measures	N	Min	Max	Mean	Std. Dev.
1. You often don’t regret making a buying decision based on window displays	134	1	5	3.56	1.121
2. You mostly enjoy products/items bought as a result of the window display that you saw	134	1	5	3.69	.953
3. Your purchase experience as a result of goods bought following its window display you saw is mostly greater	134	1	5	3.59	1.105
Overall satisfaction on window display	134	1	5	3.61	.818

Source: Field study (2015)

In relation to the respondents’ level of satisfaction on window display merchandizing practices, the responses gathered also indicated that the average respondent, to some extent agrees that he/she is satisfied with the neighbourhood grocery stores’ in-store form/mannequin display practices, given that the overall mean score (M=3.52; SD=.818, n=134) was higher than 3.00 [refer to table 4.5]

Table 4.5: Customer Satisfaction_ In-Store Form/Mannequin Display

Measures	N	Min	Max	Mean	Std. Dev.
1. You often don’t regret making a buying decision based on in-store form/mannequin display	134	1	5	3.45	1.101
2. You mostly enjoy products/items bought as a result of the in-store form/mannequin display you saw	134	1	5	3.55	.906
3. Your purchase experience as a result of goods bought following its in-store form/mannequin display you saw is mostly greater	134	1	5	3.57	1.065
Overall satisfaction on in-store form display	134	2	5	3.52	.818

Source: Field study (2015)

Further, results were produced from responses collected on the level of satisfaction on promotional signage and floor merchandizing practices. The average respondent in each case agrees to some extent, he/she is satisfied on promotional signage (M=3.39; SD=.943; n=134) and floor merchandizing practices (M=3.26; SD=.940; n=134) [refer to tables 4.6 and 4.7].

Table 4.6: Customer Satisfaction_ Promotional Signage

Measures	N	Min	Max	Mean	Std. Dev.
1. You often don't regret making a buying decision based on the promotional signage you saw	134	1	5	3.31	1.229
2. You mostly enjoy products/items bought as a result of the promotional signage you saw	134	1	5	3.35	1.092
3. Your purchase experience as a result of goods bought following its promotional signage you saw is mostly greater	134	1	5	3.51	1.095
Overall satisfaction on promotional signage	134	1	5	3.39	.943

Source: Field study (2015)

Specifically, the average respondent doesn't regret making a buying decision based on window displays, in-store form/mannequin displays, promotional signage or floor merchandizing practices, and mostly enjoys products/items bought and has greater purchase experience as a result of goods bought following such merchandizing practices by the neighbourhood grocery stores.

Table 4.7: Customer Satisfaction_ Floor Merchandizing

Measures	N	Min	Max	Mean	Std. Dev.
1. You often don't regret making a buying decision based on the floor merchandising you saw	134	1	5	3.28	1.108
2. You mostly enjoy products/items bought as a result of the floor merchandising you saw	134	1	5	3.07	1.154
3. Your purchase experience as a result of goods bought following its floor merchandising you saw is mostly greater	134	1	5	3.43	1.216
Overall satisfaction on floor merchandizing	134	1	5	3.26	.940

Source: Field study (2015)

Although the above findings generally reveal that the average respondent is, to some extent, satisfied with the various forms of merchandising practices carried out by neighbourhood grocery stores, it became necessary to further assess the data collected to see if there exist any statistically significant differences in their level of satisfaction across the 5-locations considered in the study. This assessment required the use of analysis of variance (ANOVA). The results obtained are shown table 4.8 and 4.9

Table 4.8: Satisfaction on Merchandizing

	N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Amakom	44	3.43	.475	.072	3.28	3.57
Buokrom	36	3.61	.558	.093	3.42	3.80
Kentenkrono	27	3.35	.524	.101	3.15	3.56
KNUST	15	3.42	.550	.142	3.12	3.73
Others	12	3.27	.626	.181	2.87	3.67
Total	134	3.45	.534	.046	3.36	3.54

Source: Field study (2015)

Per the absolute descriptive statistics shown in table 4.8, it could be seen that the respondents’ level of satisfaction is highest for merchandizing practices carried by neighbourhood grocery stores at Buokrom. This is followed by those in Amakom, Kentinkrono and then KNUST.

Table 4.9: ANOVA_ Satisfaction on Merchandizing Practices

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.599	4	.400	1.421	.231
Within Groups	36.297	129	.281		
Total	37.896	133			

Source: Field study (2015)

Notwithstanding these results, the ANOVA test (table 4.9) reveals no statistically significant differences in the level of satisfaction across the various suburbs. This finding imply that, any differences in the respondents mean scores on the level of satisfaction might have occurred by chance alone, and that their level of satisfaction on merchandizing practices is more or less the same across the locations where the study was carried out.

4.6 Model Estimation and Hypothesis Evaluation

Based on the main focus of the research that is: assessing the impact of merchandising on customer purchasing behaviour among neighbourhood grocery stores, the next sections presents an evaluation of the four hypotheses set.

Extant literature for example Kotler and Keller, 2012; Mehta and Chugan, 2012 ;Ridimi et al., 2011) advance and provide evidence that effective merchandizing practices such as promotions, sign boards, the atmosphere within the shop, arrangement of shelves, section divisions and cleanliness of the shop have influence positive buying behaviour. Hence, four propositions were made to guide the study.

H1: Customer purchase behaviour is influenced by window displays.

H2: Customer purchase behaviour is influenced by in-store form/ mannequin display.

H3: Customer purchase decision is influenced by floor merchandising.

H4: Customer purchase decision is influenced by promotional signage.

4.6.1 Measurement assessment:

Prior to estimating the proposed model, it became necessary to examine the reliability of the measures employed to measuring the constructs. Per the results shown in table 4.10, all the items employed in measuring the constructs were adequately reliable in terms of having strong internal consistency, given Cronbach’s alpha of 0.7.(Bagozzi and Yi, 2012). This implies that the measures satisfactorily had one underlying concept (Field, 2009). Given that respective measures for the constructs was reliable, single indicant variables were created by averaging the items and used subsequently for the regression analysis.

Table 4.10: Reliability Test Results

Construct	Measures	Alpha
Windows display (WD)	1. You tend to enter a store when you are attracted by an eye-catching window display	.787
	2. You feel compelled to enter the store when you see an attractive window display	
	3. You tend to choose which store to shop in, depending on eye-catching window display	
In-store /mannequin Display (ISMD)	1. You get an idea of what you want to buy after looking through in-store form/mannequin displays	.700
	2. When you see new product you like on in-store form/mannequin display, you tend to buy it	
	3. You tend to rely on store displays when you make a decision to purchase groceries	
Floor merchandizing (FM)	1. When you see groceries that catch your eye, you tend to try it without looking through the whole section	.763
	2. When you walk along the isle, you tend to look through the groceries close to you	
	3. You tend to buy groceries that catch your eye when you pass by	
Promotional signage (PS)	1. If you see interesting promotional offer such as reduced price and sales promotion on in-store signs, you tend to buy	.706
	2. Sale/clearance signs entice you to look through the product	
	3. You are more likely to make an unintended purchase if the product has a sale or clearance sign	
Purchase behaviour (PB)	1. Most often, you buy things which you have never planned for when you visit the store	.720
	2. You mostly buy do impose buying when you visit grocery stores	

Source: Field study (2015)

4.6.2 Assessment of Multicollinearity:

Further, in order to make sure that the assumption of multicollinearity was not violated in this study; two steps were taken by following existing recommendations. First of all, inter-variable correlational analysis was run to assess the correlation between the variables. The results produced from this analysis as shown in table 4.11 indicate a highest correlation coefficient (r) between the exogenous constructs (i.e. WD, ISMD, FM, and PS) to be .487 which is far below .90.

Table 4.11: Inter-variable correlation matrix

VARIABLES		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	Gender ^d																		
2	Age			.158*															
3	Education			.030	.133														
4	Employ ^d			-.020	-.395**	-.205**													
5	Sector ^d			-.092	.101	.245**	-.246**												
6	Income			.117	.350**	.280**	-.258**	.142											
7	Culture	3.76	1.020	-.167*	.065	-.096	-.003	-.032	-.212*										
8	Social class	3.87	.948	-.144*	-.053	-.055	-.132	-.132	-.208*	.262**									
9	Life style	4.13	.883	.001	-.059	.023	-.001	-.143*	-.245**	.261**	.597**								
10	Ego	4.22	.912	-.099	-.020	-.066	-.049	-.187*	-.314**	.331**	.512**	.599**							
11	Window display	3.75	.803	-.050	.031	.117	.057	-.058	-.108	.168*	.314**	.266**	.120						.269
12	Floor merch.	3.84	.641	-.135	-.017	.040	.094	-.008	-.277**	.272**	.283**	.246**	.123	.426** _i					.307
13	Promo. Signage	3.85	.533	-.034	-.127	.032	.085	-.068	-.251**	.276**	.149*	.300**	.202**	.311** _i	.338** _i				.326
14	In-store display	3.75	.650	-.080	.030	.067	.149*	-.002	-.090	.315**	.161*	.338**	.120	.487** _i	.440** _i	.449** _i			.590
15	Purch. behavior	4.01	.770	-.154*	-.050	.031	.098	-.008	-.200*	.389**	.303**	.378**	.243**	.519**	.554**	.571**	.768**		-.08

Notes:

ⁱ represent r between predictor variables (all less than .70, demonstrating insufficient grounds for the presence of multicollinearity among predictor construct)

^d dummy variables (coded as 1s and 0s)

Values above the diagonal represent R^2 of hypothesized paths

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Further, a collinearity diagnostics was performed by relying on Tolerance (T) and variance inflation factor (VIF). The smallest T and the highest VIF values obtained were .416 and 2.403 respectively which were accordingly within the cut-off limits, i.e. $T > .10$ and $VIF < 10$. All methods employed (i.e. r values and T, and VIF) thus revealed that the assumption of multicollinearity was not violated in this study (Pallant, 2007).

4.6.3 Model set-up and results

In estimating the proposed model, two hierarchical models were run. In the first model (i.e. Model 1), the main endogenous construct (i.e. purchasing behaviour – PB) was predicted by 10 variables, which the researchers believed they could influence consumers' purchasing decisions as well as behaviour. These variables were: gender, age, education, employment status, sector employed, income level, culture, social class, life style and personal ego. These variables were controlled in order to eliminate any confounding effects on PB. The results obtained as shown in table 4.11 indicate that, together, these variables account for 29.7% variations in PB.

In second model (Model 2), the main proposed paths (i.e. window display, mannequin display, floor merchandizing, and promotional signage) were added. This did not result in any significant change in R^2 by 44.5%, given $F(94) = 40.489$, $p < .001$.

4.6.4 Evaluation of Hypothesis, Findings and Discussions

The first hypothesis (H1) of the study argued that “customer purchase behaviour is influenced by window displays”. At 5% significance level (two-tailed test), the study's results did not provide a statistically significant support for this hypothesis, given $\beta = .086$; $t = 1.307$, $p > .05$. Thus, the finding of this study does not confirm earlier findings by authors such as Bashar and Ahmed (2012) and Sujata et al (2012) who found and reported the existent of significant direct association between impulse buying and window display.

Although there is positive association between the two variable ($r = .519$) as shown in the inter-correlation table 4.11, after controlling for the demographic characteristics, the regression analysis did not yield

statistical support for this relationship. In conclusion, it can be said that within the research context, consumers’ purchasing behaviour is not significantly determined by window display of merchandize.

Table 4.12: Ordinary Least Square Regression Results _ Standardized Coefficient

VARIABLE	Purchasing behaviour	
	Model 1	Model 2
Controls paths		
Gender	-.105 (-1.163)	-.043 (-.767)
Age	.061 (.638)	-.033 (-.550)
Education	.130 (1.410)	-.001 (-.010)
Employment	.146 (1.604)	.001 (.023)
Sector	.027 (.296)	-.003 (-.051)
Income	-.089 (-.887)	.018 (.275)
Culture	.195 (2.096)*	.006 (.104)
Social class	.128 (1.052)	.065 (.813)
Life style	.360 (2.950)**	.003 (.039)
Ego	-.114 (-.993)	.109 (1.465)
Hypothesized paths		
Windows display		.086 (1.307)
In-store mannequin		.503 (7.054)**
Floor merchandizing		.215 (3.154)**
Promotional signage		.217 (3.477)**
FIT INDICES		
R ²	.297	.742
Δ R ²		.445
Adj. R ²	.226	.704
F statistics	4.150	40.489
DF	98	94

Note:

Hypothesis evaluated at 5% significance level (1.960: two-tailed test)

*significant at 5%

**significant at 1%

Hypothesis two (H2) advanced that “customer purchase behaviour is influenced by in-store form/mannequin display”. In relation to this hypothesis, the study yielded statistical support, given the following results: $\beta = .503$; $t = 7.054$, $p < .01$. These results thus indicate that consumers’ tendency to make purchases in grocery stores is enhanced when they get an idea of what they want to buy after looking through in-store form/mannequin display and when they see new products they like on in-store form/mannequin display.

Hypothesis three (H3) posited that “customer purchase decision is influenced by floor merchandising”. The study’s results: $\beta = .215$; $t = 3.154$, $p < .01$; statistically support this hypothesis, which confirms findings in previous studies. For example, Bashar and Ahmed (2012) found that there is a strongly association between impulse buying and floor merchandising in their study.

The last hypothesis of the study (H4) stated that “customer purchase decision is influenced by promotional signage”. The study found a statistically significant support for this hypothesis, given $\beta = .217$; $t = 3.477$, $p < .01$. This finding reinforces the earlier findings that effective merchandizing practices enhances positive buying behaviour as explained in literature (Kotler and Keller, 2012) and demonstrated in empirical studies (e.g. Ridimi et al., 2011).

4.7 Summary of Findings:

This study primarily centred on exploring merchandizing practices among neighbourhood grocery stores and assessing how these practices affect customer purchasing behaviour.

Generally, the study revealed that grocery store operators within the study area make adequate use of various merchandizing practices and at least 50% of the respondents reported as having frequently seen grocery store operators in their neighbourhood making use of merchandizing practices and satisfied with such merchandise as window displays, in-store form/mannequin displays, floor merchandizing, and promotional signage within their stores. Again, the study did not provide any statistical support for significant differences in the level of satisfaction across the neighbourhoods considered in the study.

4.8 Factors That Influence the Purchase Behaviour of Customers

The study corroborated existing literature which argues that customers purchasing behaviour is significantly 'shaped' by three broad factors, which include: in-store form/mannequin display, floor merchandizing, and promotional signage (Ridimi et al., 2011). Summary of the study’s hypothesis are summarized in table 5.1 below:

Table 5.1: Summary of Hypothesis

Hypothesis		Results	Conclusion
H1	Customer purchase behaviour is influenced by window displays	$\beta = .086$; $t = 1.307$, $p > .05$	Not supported
H2	Customer purchase behaviour is influenced by in-store form/mannequin display	$\beta = .503$; $t = 7.054$, $p < .01$	Supported
H3	Customer purchase decision is influenced by floor merchandising	$\beta = .215$; $t = 3.154$, $p < .01$	Supported
H4	Customer purchase decision is influenced by promotional signage	$\beta = .217$; $t = 3.477$, $p < .01$	Supported

Source: Field study (2015)

4.9 The Impact of Merchandising on Customer Purchasing Behaviour:

Lastly, the study revealed that customers of neighbourhood grocery stores have ‘strong’ perceptions that merchandising practices have significant effect on their purchase behaviour. The study’s proposed model estimated revealed that window display, in-store form/mannequin display, floor merchandizing, and promotional signage, together accounts for 44.5% variations in consumer purchasing behaviour.

4.10 Conclusion and Recommendations

The foregoing results from the study show that merchandising as a sales tool has a very significant impact on customers by influencing their purchasing behaviour. For this reason, grocery store owners and marketers must pay much attention to it, in order to find the right blend of merchandising activities that may appeal to the target customers. Furthermore, it has been established that psychological factors have higher influence on customers purchasing behaviour, for this reason, merchandising should be used as a ‘vehicle’ to convey appeal to the minds of customers to get them attracted to the store and subsequently make a buying decision. The study shows that some customers make unplanned purchase when they visit the store so it should be used as an advantage by store owners to appropriately merchandise their product to help ignite customers’ impulse buying behaviour.

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