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Abstract
This study explores the effect of advertising on the consumer buying behaviour of new products (Delidawa & Madish) in Ajinomoto Foods Nigeria Limited, using 550 respondents drawn from different streets of Katsina town, Nigeria. The study adopts a cross-sectional survey research design, favouring the collected structured questionnaire at a single point in time. The study employed both descriptive and multiple regression techniques to analyze the data. The main findings of the research reveal that television advertising has a positive and statistically significant effect on consumer buying behaviour; radio advertising has a negative but significant effect on consumer buying behaviour, and outdoor advertising has no significant effect on the consumer buying behaviour of Delidawa and Madish products in the Katsina town. The study concludes that although advertisement mainly, through television, has the potential to create the needed awareness about a product, arouse consumer’s interest, and spark desires, which leads to the ultimate demand for a product, other factors such as elasticity of demand, price, quality of the product, income level and taste among others are also determining factors of the consumer buying behaviour for a product. The study recommends, among others, that Ajinomoto Foods Nigeria Ltd should increase the frequency of the television advertisement as doing so can enhance the consumer buying behaviour of the new products.

Keywords: Advertising, behaviour, buying, consumer, Ajinomoto

1. Introduction
In this contemporary world, hardly anybody is free from the vast influence of mass media (newspapers, television, advertising, videos, films, billboards, music, movies, magazines, and the internet), among others. Of the entire marketing tools, advertising is distinguished for the
continuing impact on the observer’s mind as its impact is broader. Basically advertisement is a tool of the promotional mix that includes the 4p’s of the marketing mix as product, price, place and promotion. In today’s world, advertisement is an excellent source for promoting the business in the whole market. The consequences of advertisements continue to accelerate year by year. Advertisements use to build up the product’s strong image in consumer’s minds. Advertising has become a vital issue (Awan et al., 2016). Among the marketing weapons, advertising has been identified as a prominent tool having an enduring impact on the subject’s mind, because of its broader exposure. Some of the purposes of advertising include informing customers about a product, increasing sales, acquiring market value, and gaining reputation and recognition in the industry (Maghsoudi et al., 2017).

Due to recent technological advancements, it has become more flexible than advertisements have developed into a more pervasive and powerful tool with improved impact and effect on consumer buying behaviour. Advertising reaches the audience to influence their behaviour through various media, such as television, radio, print, and internet advertising (Hooper, 2012). Advertisement has become of profound importance to both producers and consumers (Aqsa & Kartini, 2015).

The impact of advertising on the consumers’ buying decisions cannot be overemphasized. There is massive expenditure on advertising by various companies and marketers, with the sole aim of positively influencing consumers’ purchase decision towards their product offering. This is because the purchase decision emerges due to a long process of consumer decision-making (Falebita et al., 2020). Consumer behaviour is the study of the decision process and physical activity which individuals engage in when evaluating, acquiring, using, or disposing of goods and services, ideas or experiences to satisfy their needs and desires. It also covers the intellectual, emotional, and physical activities engaged in by individuals when making their choices and the resultant effects of these methods on consumers and society (Khaniwale, 2015; Statt et al., 2013). The main aim of analyzing consumer behaviour is to explain why consumers act in a specific manner under certain conditions (Khaniwale, 2015). This study, therefore investigates the effect of advertising on the consumer buying behaviour of new products in Ajinomoto Foods Nigeria Limited, Katsina.

A review of prior empirical investigations shows that the majority of the literature linking advertising to consumer buying behaviour are studies from outside Nigeria (see, for example, Ahmed et al., 2017; El-zoghby et al., 2021; Gaudel, 2019; Gde et al., 2021; Gupta & Kumar, 2021; Kumari & Kumar, 2020; Kumari & Sangita, 2020; Majeed et al., 2017; Mbura & Kagoya, 2021; Shetty et al., 2019; Widayat et al., 2022; Yadav, 2022; Zia, 2016; Zinyemba & Manase, 2015). Additionally, the few empirical studies conducted in Nigeria are carried out outside Katsina state and the scope of this present study (see, for instance, Chukwu et al., 2019; Inoni, 2017; Maiyaki & Adam, 2020; Ojenike, 2012; Olalekan et al., 2015) thereby creating a contextual gap. The review of empirical studies also reveals some methodological weaknesses with prior studies. In this regard, Kumari and Kumar (2020) and Pal and Pal (2019) adopted descriptive statistics in the form of frequency distribution, while Shetty et al. (2019) used the chi-square technique to examine the association between advertising and consumer buying behaviour. Descriptive statistics are only essential in data presentation and unreliable in effect or impact studies. Chi-square, on the other hand, is a non-parametric statistic and has less predictive power and ability. This study addresses these gaps by focusing on Ajinomoto’s new
products in Katsina, adopting multiple regression, which is more robust and reliable than descriptive and chi-square statistics utilized by the identified kinds of literature.

2. Literature Review

2.1. Concept of Advertising

Advertising is any form of paid strategic communication by an identified sponsor that aims at informing and persuading receivers about an advertising object (e.g., product, service, brand, organization, or idea). Traditionally, it is conveyed via purchased time or space in mass media (Thorson & Rodgers, 2012). In an economic context, advertising is a subcategory and integrated part of all the activities that promote a brand (marketing), pricing, or other forms of marketing communication like personal selling (Fennis & Stroebe, 2010; Tellis, 2004).

Advertising is a non-personal communication, paid and identified by individual, profit, and non-profit firms to inform and attract a target audience (Nirmala & Pais, 2016). People tend to be more attracted to an advertisement if it is entertaining (Alalwan et al., 2017). Dwivedi et al. (2017) suggest that creative and attractive advertisements tend to attract more consumers. Jung et al. (2016) found that entertainment and consumer's attitudes toward advertisements are closely related. Therefore, advertisements should be accompanied by entertainment to arouse consumers’ interest.

There are different media of advertising; however, only those related to the study are discussed below:

2.1.1. Television Advertising

Television advertising is the form of advertisement perceived to impact the sensational aspects of the audiences because both eyes and ears get involved in the communication of the intended message (Arshul et al., 2014). Television advertising is one of the best mediums of advertising, and it enables the messages to reach a wide variety of audiences or consumers (Chukwu et al., 2019). Television advertising has been recognized as the best method of presenting goods or services to millions of consumers as it impacts efficiently and effectively the behaviour of consumer (Bushra et al., 2015).

2.1.2. Radio Advertising

Radio advertising is audio-visual as it only appeals to the ear and not the eyes. It may not be as effective as television advertising, but it can reach a wide variety of audiences because of its affordability. Aside from affordability, radio does not necessarily require electricity to function.

2.1.3. Outdoor Advertising

Outdoor advertising exists in different forms billboards, handbills, hoardings, banners, posters, wall paintings, computerized boards etc. (Navnita, 2014). They are often placed in strategic locations and are accessible at all times unless removed. Therefore, outdoor advertisement is an unavoidable part of the human environment, unlike the other media of advertising like TV, radio, and print, which can be put away or turned off (Lina & Victoria, 2016).

2.2. Concept of Consumer Buying Behaviour
Consumer buying behaviour is described as the mental, emotional, and physical activities that people engage in when choosing, purchasing, using, and disposing of products and services in order to satisfy needs and desires (Schifman & Kanuk, 2009). Consumer behaviour is the attitude that a consumer exhibits in the process of searching for, purchasing, using, evaluating, and disposing of a product and service that s/he expects to satisfy his or her needs (Schiffman & Wisenblit, 2015; Tanrikulu, 2021). Ferreira et al. (2021) assert that there are variations in consumer attitudes arising from a continual change in the standard of living, technology, fashion, and trends. Consumer behaviour is an act people display in the actual or possible use of products. It is a decision making by an individual to utilize available resources on the relevant consumption (Agwu et al., 2014).

The concept of consumer behaviour attempts to identify the factors that influence the behaviour of the consumer, such as the economic, social, and psychological aspects which makes an understanding of the consumer buying behaviour process of paramount importance (Cooray et al., 2018).

Consumer buying behaviour is affected by psychological perception and attitudes (Kotler et al., 2001) and also affected by social and cultural forces that affect individuals buying decision but also determines the choice of product to buy (Arnold & Thompson, 2005). Consumer behavior is the product of the physical, psychological, and social behaviour of prospective consumers (Reetika, 2015).

2.3. Review of Empirical Studies

Widayat et al. (2022) examine the influence of advertising variables, electronic word of mouth, and brand awareness on the purchase decisions of 250 consumers of fashion products in Indonesia. Data were collected using a self-administered questionnaire and analyzed by Covariance-based Structural Equation Modelling (CB-SEM). Findings show that advertising and electronic word of mouth (e-WOM) significantly and positively affect purchasing decisions for fashion product at the same time brand awareness can substantially mediate the influence of advertising and electronic word of mouth on purchasing decisions.

Yadav (2022) investigates the impact of advertising on the buying behaviour of 23 consumers of the luxury product of pen and their preferences for the brand, colour, and price of the pen. Results reveal that brand is the most critical determinant of the buying behaviour for pens.

Gde Satia Utama et al. (2021) examine how advertisement influences consumer buying behavior in Malaysia and India. 100 responses were collected from surveys to 51 Malaysian respondents and 49 Indian respondents from universities groups, personal friends, and families. The findings indicate that advertising is highly persuasive, and social media advertisement through Facebook, Instagram, and TikTok is the most important determinant of buying behaviour in the study area.

Kumari and Kumar (2020) investigate the relationship between advertisements and buying behaviour of 100 consumers of beauty products in Ranchi town using descriptive statistics. Findings reveal that television advertisement is the most crucial determinant of consumer buying behavior of beauty products in the study area.
Kumari and Sangita’s (2020) results reveal that printing, broadband, outdoor, and social media have a positive and significant impact on consumer purchasing behavior, while broadcasting media has no significant impact on consumer purchasing behaviour.

Maiyaki and Adam (2020) reported that outdoor, print, and broadcast advertising have a significant and positive impact on consumer buying behaviour, while celebrity advertising has no significant impact on consumer buying behaviour.

Chukwu et al. (2019) document that the independent variables, emotional response, environmental response towards the brand, brand awareness, and sensory-stimulated advertising, have a positive and statistical impact on the dependent variable consumer buying behavior.

Sama (2019) uncovers that magazines and newspapers are effective media in influencing purchase and post-purchase consumer behavior. Newspaper advertisement was also found to influence the five stages of consumer behaviour.

Pal and Pal (2019) in their study have found that consumer perceptions and brand awareness about a particular product are capable of persuading and influencing consumer to buy a product.


Lee and Heere (2018) determine the relative effects of emotional advertising, the rational advertising, and combination advertising on the behaviour of sports consumers. Results suggest that emotional advertising resulted in a higher consumer attitude towards advertising, followed by combination advertising, while rational advertising had the most minor influence on the behaviour of consumers.

Majeed et al. (2017) investigate the influence of advertisements on consumer behaviour by assessing the women’s response to emotional advertisements using factors such as level of emotions, celebrity endorsements, and appeal. Results indicate that a better understanding of the combination of the aforementioned factors could result in the desired emotional response and thereby influence the consumption behaviour of Chinese women.

Lubna et al. (2017), Anjum et al. (2015), and Ahmed et al. (2017) found that television advertisements have a significant positive effect on consumer's buying behaviour.

Singh and Pandey (2017) in study that reviewed the literature on the association between emotional appeal used in television (TV) advertisement and consumer purchase decision reveals that youngsters and women affected mainly by the emotional TV advertisement. The authors also observe that humour appeal is the most common appeal which is used in TV commercials to connect with the viewers.

Dulin et al. (2016) conducted a study on the impact of advertising on consumer behaviour. Findings indicate that emotional appeal, promotional advertising, facts and statistics, bribes, and unfinished advertisements influence consumer’s buying decision. The results also show that celebrity endorsements have the most negligible influence on consumer’s buying decision.
Gupta (2016) explores the effect of television advertisements on the life study of rural consumers using 400 respondents from households with television sets. Results reveal that advertising appeal helps in changing the lifestyle of the rural people because emotional advertising appeal helps mould their attitude towards the products.

Iqbal and Batool (2016) study the impact of billboard advertisement on customer buying behaviour at the Islamia University of Bahawalpur, Pakistan, and document that billboard advertisement positively influences consumer buying behaviour.

Zourikalatehsamad et al. (2015) investigate the impact of online advertising on consumer purchase behaviour among students of Universiti Teknologi Malaysia. The results reveal that online advertising has a positive and significant impact on consumer purchasing behaviour.

Kibona (2015) investigates the impact of three elements of advertising (billboards advertisement, media communication advertisement, and POS materials advertisement) on consumer buying behaviour in Dar-Es-Salaam, Tanzania. Results indicate that the three proxies of advertising have a significant positive impact on consumer buying behaviour.

Afzal and Khan (2015) assess the impact of online and conventional advertisements on consumer buying behaviour of branded garments. Findings show that quality; design and content of the advertisement, customer loyalty towards the brand, and previous buying experience of the consumer are important factors that influence consumer buying behaviour.

Bansal and Gupta (2014) examine the effects of newspaper advertisements on the purchasing behaviours of 1,017 consumers’ in India, employing the Resnik and Stern criteria techniques. Results indicate that newspaper advertisements positively and significantly influence buyer’s decision-making.

Malik et al. (2013), Dinu and Dinu (2012), and Rasool et al. (2012) found a significant positive relationship between advertising and consumer buying behavior.

Kumar (2011) investigated the impact of advertising on consumer buying behaviour in Nestle Limited in India and finds that advertising, sales promotion, and the image of the company influence the consumer buying decision, while the quality and price of product influence consumer purchase of a product.

Rajagopal (2011) analyses the impact of radio advertisements on buying behavior of urban commuters in retail stores. The findings reveal that radio advertisement has a positive impact on the buying behaviour of the urban consumers at retail stores.

Haque et al. (2011) assessed the impact of advertisements on customers of fast-food restaurants in the Klang Valley Area in Malaysia and found that consumers are most influenced by internet advertisements, followed by commercial advertisements, and then followed by print advertisements.

Pongiannan (2011) conducts a study on the impact of television and web advertisements on consumer buying behaviour. Findings reveal that TV advertisement has a more significant impact on the consumer buying behaviour than the web advertisement.

It is evidenced from the above review of the empirical studies that most of the studies were carried out outside Nigeria, and the few studies from Nigeria were conducted from Enugu, Kano, and Delta states. The review also unravels that Telecommunication services, Indomie
instant noodles, fashion products, luxury products, health & beauty products, date-oil-seed products, cosmetic products, branded garments, and toothpaste were among the products utilized by these studies. It was also discovered that no single study combines telephone, radio, and outdoor advertising in a single model. These created contextual and variable gaps, which the present study addressed.

After the review of empirical studies, the following hypotheses are developed and tested:

**H1:** Television advertising has a significant positive effect on consumer buying behaviour.

**H2:** Radio advertising has a significant positive effect on consumer buying behaviour.

**H3:** Outdoor advertising has a significant positive effect on consumer buying behaviour.

### 2.4. Theoretical Framework

This study adopts the AIDA model as the theoretical underpinning of the study, which was developed in 1898 by E. St. Elmo Lewis. The AIDA is an awareness, interest, desire, and action acronym. According to this model, to influence consumers via communication and make them consider the advertised product or service, various content is needed to attract consumers and develop their interest and desire for purchase (Kotler & Armstrong, 2018). Advertising acts as a stimulus, which is supposed to start the purchasing decision (Mwakasege, 2015). Therefore, it has been observed in the literature that advertising is a stimulus-reaction scheme. For the process to begin, the consumer must notice the advertising. The advertiser must attract or arouse the target group’s attention. It is necessary to know how to attract consumers’ attention, and which advertising strategies that relate to the content of an advertising message, presentation, or placement are needed (El-zoghby et al., 2021; Jolly, 2020).

The AIDA model is an advertising model that identifies the stages an individual goes through while buying a product (Preston, 1982). The actual purpose of the AIDA model was to optimize sales calls and advertisements, particularly the interaction between a seller and a buyer concerning a product. Consequently, a successful advertisement should always follow a specific logical pattern for it to attract a reader to look and start reading the product advertisement, then arouse interest enough to continue reading it, then convince the reader to read the advert and to believe it, and subsequently act by searching for, and buying the product (Mbura & Kagoya, 2021). Hackley and Hackley (2021) advocate that the AIDA model aims to ensure that effective advertisements create awareness, stimulate interests and, finally, direct customers’ desire to act by purchasing a particular product, having been stimulated by a much more enlightening advertisement.

The AIDA model is helpful in advertising in particular and marketing in general by helping respective managers develop communication strategies that engender effective sending of messages (Mbura & Kagoya, 2021).

The four attributes in the AIDA model can be described as follows. **Awareness** is the ability of the advert to grab the attention of customers. Interest requires that managers to create an advert capable of stirring and raising the interests of customers by communicating the salient features, benefits, merits, and other attributes of the product. **Desire** is the strong want among consumers that emerges when they perceive that a service or product advertised will satisfy their wants and needs as a result of the communication made. Action refers to the outcome of the
communication facilitated by the advert. After creating attention, interest, and desire, consumers need to act by purchasing a particular product or service.

3. Research Methods

This study utilized a descriptive cross-sectional survey as its research design. The choice of the design is essential given that the structured questionnaire considered as the data collection instrument was administered at a single point in time. The design allows the understanding of the relationship between the independent variables: advertising represented by television advertising, radio advertising, and outdoor advertising, and the dependent variable, consumer buying behaviour, devoid of manipulation. Several authors, including Chukwu et al. (2019), El-zoghby et al. (2021), Malik et al. (2013), and Maiyaki and Adam (2020) have adopted this design in their research.

The study population consists of all the users of the Delidawa and Madish products residing in Katsina town. Given that it is tough to ascertain the exact number of users of the products because of their relative newness in the market. Aside from this reason, determining the actual number of the users of a product is practically tricky, if not impossible, due to changes in taste and fashion, existence of close substitutes, price, and income, among several determining factors. Hence, the researcher was compelled to treat the population size as indeterminable, which qualifies it as infinite. To compute the sample size, we relied on the formula recommended for an infinite population since, as pointed out, the actual figure could not be determined. In this regard, the formula recommended by Cochran (1963) was obtained and utilized. The formula was developed based on the z-score and is presented as equation 1.

\[ n = \frac{Z^2pq}{d^2} \]  

(1)

Where:

- \( n \) = Sample size
- \( Z \) = the standard normal deviation at 95% confidence level =1.96
- \( p \) = the proportion in the target population estimated to have a certain characteristic.

Since there is no population estimate, 50 per cent (0.5) in the conformity with prior literature such as Keller and Warrack (1997) and Mugenda and Mugenda (2003) has been adopted as the maximum variability. \( d \) = margin of error of 5%

\[ q = 1 - p \]

\[ n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 385 \text{ users of the new products} \]

Hence, the recommended minimum sample size for the infinite population based on the 50 per cent population estimate and 5 per cent margin of error is approximately 385. In line with the suggestion of Cochran, we doubled the sample size to overcome the issues of low response, non-return, and invalid responses usually associated with using questionnaire administration, which Groves (2006) maintains could make results invalid; this brings the revised minimum sample size to a total of 770. Similar procedures have been adopted by authors such as Akeem et al. (2017), Gbolagade and Abubakar (2018), and Israel (1992), among several others.

This study adopts non-probability sampling techniques in the form of convenience and purposive sampling techniques. These techniques become necessary given the lack of
information about the sample frame and the inaccessibility of the target population. Convenience sampling technique was adopted such that questionnaire administration was based on the availability of respondents irrespective of the location, while purposive sampling technique was to ensure that only users of the Delidawa and Madish products in Katsina town were administered with the data collection instrument. Malik et al. (2013) and Zahid et al. (2016) adopted a convenience sampling technique, while Mbura and Kagoya (2021) utilized a purposive sampling technique in their research.

The study used a structured questionnaire as a data collection instrument. The questionnaire was divided into five sections, A, B, C, D, and E. Section A contains a dichotomous response, yes or no question aimed at ensuring that only users of the new products filled the questionnaire instrument, and multiple choice questions; Sections B, C and E contain a four set of a five-point Likert scale attitudinal statements each, and Section D contains a three set of the Likert scale designed to receive responses on the three dimensions of advertising (television, radio and outdoor) and the consumer buying behaviour. The items contained in Section B for television advertising include: I became aware of Delidawa and Madish new products of Ajinomoto Foods Ltd through television advertisement, television advertisement on Delidawa and Madish aroused my interest to the products, I desired Delidawa and Madish based on the television advertisement I saw on the products, and I will buy Delidawa and Madish after watching the TV advert on the products. Section C which was used to receive responses on radio advertising contains items such as: I became aware of Delidawa and Madish new products of Ajinomoto Foods Ltd through radio advertisement, radio advertisement on Delidawa and Madish aroused my interest to the products; I desired Delidawa and Madish based on the radio advertisement on the products, and I will buy Delidawa and Madish after the radio advert on the products. Section D contains three items on outdoor advertising such as: I became aware about Delidawa and Madish new products of Ajinomoto Foods Ltd through poster/billboard advertisement, Poster/billboard advertisement on Delidawa and Madish arouse my interest to the products, and I will buy Delidawa and Madish after seeing the poster/billboard advert on the products. Section E which elicits responses on consumer buying behaviour contains four statements such as: The awareness about Delidawa and Madish through advert endeared me to buy the products, I will buy Delidawa and Madish because the adverts on the products arouse my interest, I desired and will buy Delidawa and Madish based on the adverts on the products, and the various adverts on Delidawa and Madish made me to buy the products.

The scale ranges from ‘1’ strongly disagree to ‘5’ strongly agree. Studies such as Awan et al. (2016), Abdel-Gadir and Alfarsi (2020), and Gupta and Kumar (2021) have utilized the same scale in their studies. Adopting a structured questionnaire, according to Awoniyi et al. (2022) provides convenience, efficiency and ease of use for both the researchers and the respondents.

Data analysis was carried out using descriptive and inferential statistics. Frequency table and percentages is the descriptive statistical tool employed. In contrast, the multiple regression method was employed to examine the effect of advertising on the consumer buying behaviour of Ajinomoto Limited’s new products in Katsina town.

A model shows a functional relationship between the dependent and the independent variables. Thus, the dependent variable is expressed as a function of the independent variables and shown in equation 2.

\[
\text{CBB} = f(\text{TLA}, \text{RDA}, \text{ODA})
\] (2)
Implicitly, equation 2 can be transformed into equation 3 written below.

\[ CBB = b_0 + b_1 TLA + b_2 RDA + b_3 ODA + \varepsilon \]  

(3)

Where: \( CBB \) = Consumer buying behaviour; \( b_0 \) = intercept, \( b_1, b_2, \) and \( b_3 \) = Parameters or coefficient of the regression model; \( TLA \) = Television advertising; \( RDA \) = Radio advertising; \( ODA \) = Outdoor advertising; \( \varepsilon \) = error term

To ensure that the questionnaire items are valid, we conducted a pilot study to pre-test the questionnaire items. We conducted a pilot study on 40 users of the new products following the 10 per cent of the sample size recommended by Connelly (2008). The content validity was done by two senior academics that made minor observations. Chukwu et al. (2016) and Elzoghby et al. (2021) also adopted a pilot study to validate their questionnaire items.

Additionally, a reliability test was conducted through the adoption of Cronbach alpha coefficients. Cronbach alpha has been widely adopted by many authors, including but not limited to Awan et al. (2016); Chukwu et al. (2019), Kumari and Sangita (2020), and Maiyaki and Adam (2020). A Cronbach alpha of 0.70 has been popularly considered the minimum acceptable threshold or standard for achieving internal consistency (Gliem & Gliem, 2003; Sekaran, 2003) and this study, also adopts this threshold.

4. Results and Discussion

Of the 770 questionnaires administered, 650 questionnaires were retrieved. Of this figure, 52 respondents indicated they were unfamiliar with Delidawa and Madish, 32 questionnaires had some blank spaces, and 16 questionnaires had multiple responses. This brings the total number of invalid responses to 100. The initial 52 respondents that are ignorant of the new products introduced by Ajinomoto Foods Nigeria Limited were considered invalid because they lacked the knowledge to respond to the questionnaire instruments objectively. Therefore, the number of valid responses stood at 550, which is greater than the minimum sample size of 385 recommended by the Cochran formula. Thus, the 550 valid responses are for analysis.

4.1. Validity and Reliability Test

The results of the pilot study used as a test for validity show that all items have coefficients more fantastic than the minimum acceptable standard of .7. As such, the responses were retained in the main study. Table 1 presents the results of the study variables and the corresponding Cronbach alpha coefficients.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLA</td>
<td>.917</td>
<td>4</td>
</tr>
<tr>
<td>RDA</td>
<td>.780</td>
<td>4</td>
</tr>
<tr>
<td>ODA</td>
<td>.716</td>
<td>3</td>
</tr>
<tr>
<td>CBB</td>
<td>.854</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2023)

The results in Table 1 show that all the variables have Cronbach alpha coefficients greater than .70, which implies and suggests that the variables have internal consistency.
4.2. Normality Test

This test is vital for ensuring that the samples were drawn from a fairly symmetrical distribution which is one of the assumptions of applying the regression model. Although different methods exist for detecting normality, this study adopts skewness and kurtosis. The skewness and kurtosis statistic has been subjected to different interpretations. For the variables to be considered fairly symmetrical, skewness and kurtosis should lie between ±3.5 (Hair et al., 2013), while to West et al. (1995), a skewness of 2 and kurtosis of 7 are sufficient requirements for distribution to be considered as fairly normal. The results of the skewness and kurtosis show that none of the variables has skewness and kurtosis up to 1.5; this, according to both Hair et al. (2013) and West et al. (1995) imply that all the variables are reasonably symmetrical or normally distributed.

4.3. Heteroskedasticity Test

One of the classical assumptions underlying a regression model is the presence of constant variance of the error term, and heteroskedasticity violates this assumption. The study adopts the method of scatterplot graph to test heteroskedasticity. The scatterplot graph shows the relationship between the predictive values of the independent variables (ZPRED) and the residual (SRESID). It was observed from the scatterplot that the spots do not provide any specific pattern, and this may imply that heteroskedasticity is not present in the regression model.

4.4. Collinearity Test

The essence of running a collinearity test is to ensure that two free variables i.e., independent variables in a model, do not possess a high correlation coefficient large enough to pose a problem. Two commonly reported methods of detecting collinearity in the literature are correlation and the variance inflation factor (VIF), and the same approach is adopted in this study. Correlation is a study of linear relationship between two variables. There is no consensus on what constitutes a high correlation in the literature. The correlation coefficients of 0.7, 0.8 and 0.9 have been adopted by different authors to connote high correlation (Gujarati, 2009; Swain, 2008; Tabachnick & Fidell, 2007; Wooldridge, 2015). In ensuring that multicollinearity is not present in our model, we used Product Moment Correlation, and the results show that no two independent variables have high correlation, implying that the model is free from the problem of multicollinearity. We also used VIF to corroborate the correlation technique. From the results of the collinearity statistics, it is vividly clear that no variable has a VIF, as high as 10 and a tolerance statistic below 0.1. As pointed out by (Marzuki et al., 2020; Pallant, 2005), these requirements suggest that the model is free of multicollinearity problems. With this suggestion, the VIF results have thrown weight behind the correlation results on the absence of multicollinearity.

4.5. Descriptive Analysis

This section presents the descriptive statistics of the demographic and the study's main variables. The following sub-section discusses the descriptive analyses of the demographic variables. This subsection gives a descriptive analysis of the respondents’ relationship with Ajinomoto Foods Ltd in terms of patronage of its products and the gender profile of the
respondents. Table 2 shows the descriptive results of the demographical variables of the respondents.

Table 2: Descriptive Results of Demographic

<table>
<thead>
<tr>
<th>Patronage Relationship with Ajinomoto Foods Ltd.</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>98</td>
<td>18</td>
</tr>
<tr>
<td>5-10 years</td>
<td>385</td>
<td>70</td>
</tr>
<tr>
<td>Above 10 years</td>
<td>67</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>550</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender of the Respondents</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>66</td>
<td>12</td>
</tr>
<tr>
<td>Female</td>
<td>484</td>
<td>88</td>
</tr>
<tr>
<td>Total</td>
<td>550</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2023

The descriptive statistics results show that most respondents, corresponding to 70 per cent of the total valid responses, indicated that they have been patronizing Ajinomoto Foods Ltd for 5 to 10 years. This implies that most of the respondents are loyal customers enjoying the product attributes of the company. The descriptive results in Table 2, also indicate that 484 respondents, tantamount to 88 per cent, are females, while the insignificant 12 per cent are males. The gender composition of the respondents is as expected, given that the female folks are mainly responsible for shopping for spices and cooking food items.

4.6 Regression Analysis

The study has one dependent variable and three independent variables. The dependent variable is consumer buying behaviour (CBB), while the independent variables are television advertising (TLA), radio advertising (RDA), and outdoor advising (ODA). The regression model is used to study the effect of the independent variables on the dependent variable. Multiple regression techniques regress Consumer buying behaviour on the TLA, RDA, and ODA. Table 3 provides a summary of the regression results.

Table 3: Summary of Regression Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standard Error</th>
<th>t-values</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>8.559</td>
<td>.548</td>
<td>15.617</td>
<td>.000</td>
</tr>
<tr>
<td>TLA</td>
<td>.634</td>
<td>.031</td>
<td>20.783</td>
<td>.000</td>
</tr>
<tr>
<td>RDA</td>
<td>-.255</td>
<td>.036</td>
<td>-7.005</td>
<td>.000</td>
</tr>
<tr>
<td>ODA</td>
<td>.075</td>
<td>.056</td>
<td>1.339</td>
<td>.181</td>
</tr>
<tr>
<td>R-squared</td>
<td>.523</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>.521</td>
<td></td>
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<tr>
<td>F-stats</td>
<td>199.651</td>
<td></td>
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</tr>
<tr>
<td>F-sig.</td>
<td></td>
<td></td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Authors' Computation (2023)
Results of the regression model show that TLA has a positive and significant effect on consumer buying behaviour as evidenced in the positive t-value of 20.783, which is significant at a 1 per cent level, based on the p-value of .000. For RDA, the regression results provide evidence in support of negative but significant effect on the consumer buying behaviour. This assertion arose from the negative t-value of -7.005 and p-value of .000 associated with RDA. Similarly, the results related to the third free variable i.e., ODA also indicate that ODA has no significant effect on consumer buying behaviour in the study area. This position is reinforced by the t-value of 1.339 and the non-significant p-value of .181.

4.7 Discussion of Findings

Hypothesis one was not rejected due to the reasons already highlighted. Such decision was taken at a 99 per cent confidence level, given that the p-value was less than .001. The unstandardized coefficient of TLA is .634, which means that a 1 per cent increase in the frequency of television advertisement is associated with about .63 per cent rise in the level of the consumer buying behaviour for Delidawa and Madish products in Katsina, Nigeria. This implies that the more awareness created about Delidawa and Madish products, the more interest and desire to patronize and purchase the products. The sensational appeals associated with the TV advertisements are capable of convincing consumers to buy the products. Argument in favour of TV advertising over other media is that it is not only appealing to the ear alone, but also, to the eyes. TV advertising affords consumers with the opportunity to see everything about the attributes of the products being advertised. This finding provides support that TV builds the product strong image in the minds of the users and helps shape their attitude and perceptions towards the product. This finding is consistent with prior empirical studies by Ahmed et al. (2017); Lubna et al. (2017) and Mbura and Kagoya (2021) who found significant positive relationship between television advertising and the consumer buying behaviour. Conversely, this finding is contrary to the result of Kumari and Sangita (2020) that did not discover any statistical significant association between the variables.

In addition, both the standardized and the unstandardized coefficients of TLA are higher than the two other media (RDA & ODA) considered in this study. This implies that TLA is the most significant and the most impactful determinant of the consumer buying behaviour in Katsina. This discovery in consonance with the results of Abdel-Gadir and Alfarsi (2020), Ashaduzzaman and Asif-ur-Rahman (2011), and Singh and Gangal (2011), that also documents that television is the most influential media of advertisement. This finding also supports the assertion of Kotler (2002) that television advertisement is the most effective in influencing consumer buying behaviour.

Moreover, the second hypothesis was rejected because of its negative significant t-value. RDA has a coefficient of -.255, which implies that a 1 per cent increase in the frequency of radio advertisements leads to about a 0.26 per cent decline in the level of consumer buying behaviour for Delidawa and Madish products. This implies that advertisements through radio do not appeal to the consumers in Katsina, and it is capable of dissuading or discouraging the consumers from buying Delidawa and Madish products. Another implication could be that the contents of the radio advertisements are not carefully worded to create awareness, to arouse interest, and to spark the desires of the consumers to endear them towards buying the product. Another potential reason for the negative result is that since the study area is a city, the consumers may be more exposed to other social media platforms and may pay less attention to
listening to the radio. Of course, there is no doubt that events covered on video provide a more sensational experience than the imaginative of audio experience. This finding is contrary to the positive results reported by Kumari and Sangita (2020), Rajagopal (2011) and Mbura and Kagoya (2021). The results are due to context, differences in the unit of analysis, and the countries of the studies.

Furthermore, the association between ODA- posters, billboard among others and consumer buying behaviour was not found to be significant, though positive. This implies that changes in the ODA will not alter consumer buying behaviour in Katsina. However, in the long run, ODA, through posters on movable vans can induce consumers to buy Delidawa and Madish products. Posters and billboards stay longer than the other media unless they are removed. This finding contradicts the results of (Iqbal & Batool, 2016; Kibona, 2015; Kumari & Sangita, 2020; Maiyaki & Adam, 2020) that found a positive but significant link between outdoor advertising and the consumer buying behaviour.

Additionally, the adjusted R-squared of .521 entails that about 52 per cent of the variation in consumer buying behaviour is jointly accounted for by television advertising, radio advertising, and outdoor advertising, whereas the remaining 48 per cent is due to chance and other factors such as close substitutes, price, taste, income level, among other several determinants of consumer buying behaviour not adopted by the present study. The f-statistic of 199.651 is significant at a 1 per cent level, as revealed by the p-value of .000. This confirms the joint significance of the independent variables (television advertising, radio advertising and outdoor advertising) on the dependent variable- consumer buying behaviour. This confirms that the model is fit and desirable for drawing conclusions and providing recommendations.

The findings have implications for policy makers, especially the management of the sampled company and the regulators. For the company’s management, the findings point to television advertising as the primary determinant of consumer buying behaviour. The new products are at the introduction and growth stages of the life cycle. Hence, there is a need for heavy expenditure on television advertising to attract consumers to buy the products. Regulators should enforce that companies utilized television advertisements with factual words to enable consumers make decisions regarding purchase intention.

5. Conclusion

This study explores the effect of advertising on consumer buying behaviour using 550 respondents drawn from different streets of Katsina town, Nigeria. The study adopts the AIDA model developed by Lewis (1898) to investigate the effect of the independent variables such as telephone advertising, radio advertising, and outdoor advertising on the dependent variable- consumer buying behaviour of new products- Delidawa and Madish introduced into the market by Ajinomoto Foods Nigeria Limited. The main findings of the research reveals that television advertising has a positive and statistically significant effect on consumer buying behaviour; radio advertising has a negative but significant effect on consumer buying behaviour, and outdoor advertising has no significant effect on the consumer buying behaviour of Delidawa and Madish products in the Katsina town.

The study concludes that although advertisement, mainly through television has the potential to create the needed awareness about a product, arouse consumer’s interest, and spark desires which leads to the ultimate demand for a product, other factors such as elasticity of demand,
price, quality of the product, income level, and taste among others are also determining factors of the consumer buying behaviour for a product. Television advertising is the most effective and efficient medium of stimulating demand for Delidawa and Madish products as compared to radio and outdoor advertisements in Katsina town, Nigeria.

The following recommendations are made for policymakers, particularly the management of Ajinomoto Foods Nigeria Limited:

1. The company should increase the frequency of television advertising as it can enhance the consumer buying behaviour of the products.
2. Radio advertising negatively impacted the consumer buying behaviour of Delidawa and Madish new products. Therefore, there is a need for the company to divert expenditure from radio advertisements to television advertisements.
3. The company should share the contents of the television advertisements on various social media platforms such as Facebook, Instagram, and WhatsApp among others.
4. Although outdoor advertising, particularly posters and banners, was found to be insignificant, it has a positive t-value. This implies that outdoor advertising can enhance consumer buying behaviour on Delidawa and Madish products in the long run. Hence, the company should continue to advertise Delidawa and Madish products by inscribing the posters and banners of the products on the company’s vehicles and vans.

This study is limited to only new products of Ajinomoto Foods Nigeria Limited in Katsina and restricted to studying only three advertising media vis-à-vis telephone, radio, and outdoor. Future studies should consider replicating the study in other parts of the state. Future studies should also consider incorporating other media, such as social media and print media, in their studies and investigate other products not considered by the present study.

References


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