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# HEDONIC DEMAND ANALYSIS FOR BEEF IN BENIN METROPOLIS

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**ABSTRACT**

The study examined hedonic demand analysis for beef in Benin metropolis. To achieve this, the consumers' implicit demand for beef within the framework of a hedonic analysis, and the implicit or shadow price of beef were examined. Primary data were used to generate information for the study and were collected with the use of a well-structured questionnaire using the simple random sampling technique to obtain data from one hundred and seventy (170) respondents. Data collected were analysed using both descriptive and inferential statistics. The descriptive statistics used were frequency counts, mean, standard deviation and percentages, while the inferential statistics employed the correlation analysis and multiple regression analysis. The results of the descriptive statistics showed that more than half (54.1%) of the consumers were female household heads, who were married, in the age bracket of 40-59 years, of medium-size household family, and mainly civil servants within income bracket of ₦60000-79000. The results of the Hedonic analysis showed that, with an average unit price of ₦836.57 for beef, a consumer is strongly willing to pay additional ₦229.27 for beef with good taste, ₦227.10 for neat beef, ₦163.05 for beef of 'proper' processing style and ₦380.21 for fresh beef in the study area. Similarly, the consumer is willing to pay additional ₦110.70 for beef which is properly packaged and ₦139.11 for beef processed in a hygienic environment in the study area, though not with the same degree of willing as for taste, neatness and freshness. Thus a consumer will willingly pay about twice the normal price for a Kg of beef in the study area. However, other consumers who are keen on the modern processing style for beef production will pay an additional ₦163.05 per Kg which amounts to about ₦1700.00 per Kg of beef while others who possibly value modern processing style, in addition to well-packaged beef from a hygienic environment, will pay additional ₦249.81 per Kg which amounts to ₦1900.00 per Kg of beef.

**KEY WORDS:** Hedonic, Verimax, Beef, Eigenvectors, Price

## INTRODUCTION

Meat is the most important supplier of animal protein in Nigeria, and beef is the single most important meat to the Nigerian consumer, contributing more than 32 percent of all meat consumed in the country (FAO, 2002), and Benin City Metropolis is no exception. Although the price transmission of beef marketing is incomplete and the margin between producer and retail prices are divergent in the short-run, beef marketing in Benin is profitable (Ojogho, *et al.,* 2012). Profit making in beef marketing is not just enough, it is important to know why and how informed consumers in Benin City derive pleasure from this product. Sonaiya (1982) envisaged that as consumers become more articulated and organized, their demand for wholesome animal protein will exert a powerful influence upon quality, production method and strategies. Lancaster (1966) stated that a good does not give satisfaction directly to a consumer, but possesses characteristics or attributes which give it its utility. These attributes can be categorized into three categories which are search, experience, and credence attributes (Caswell, and Mojduszka, 1996; Bureau *et al.*, 1998; Loureiro *et al.,* 2002; and Pelsmacker *et al.*, 2005). Are these attributes, resulting from the evolution of modern processing methods such as the use of Liquefied Petroleum Gas (LPG) for singeing, responsible for the new dimension of beef consumption, in recent times, among informed consumers in Benin City particularly? Is it possible that the most informed consumers are already showing dissatisfaction with the unwholesome beef that litter the markets in the area? Could it be the price of beef; consumers taste and preference; or the socio-economics of the consumers?

Unlike the market for most tangible goods, the market for meat quality does not yield an observable per unit price. When the quality of a good varies, quantity in physical units may be a very misleading measure of price. Some researchers find the price of quality by using direct elicitation of willingness to pay, travel costs, averting costs, direct monetary damages, the household production approach or some combination of the above (Cameron, 1992; Kiel and McClain, 1995; Chattopadhyay, 1999; Smith and Deyak, 1975; Beron *et al.*, 2001; Hoehn *et al.*, 1987; Kohlhase, 1991; Hite *et al.,* 2001; Nelson *et al.*, 1992). However, econometric methodologies could be employed to construct a model that the relative significance of various characteristics are defined and their influence on price levels from one time to another, or between one region and another, are

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allowed for simultaneously. This is the concept used in the hedonic pricing model. Literatures are rife were these approaches have been utilized to address price premiums for food product attributes (Wessells *et al.*, 1999; Gil *et al.*, 2000; Loureiro *et al.*, 2001; Loureiro *et al.*, 2002; Canavari *et al.*, 2002; Loureiro, and Hine, 2002; Ara, 2003; Cranfield, and Magnusson, 2003; Nimon and Beghin, 1999; Combris, *et. al.*, 2000; Donnett, *et. al.*, 2008; Griffith, and Nesheim, 2008; and Batte *et al*., 2007; Sheppard, 1999; Cheshire and Sheppard, 2004; Kane, *et.al*., 2003; Gibbons, 2004; Leichenko, *et, al*., 2001; Cheshire and Sheppard, 2002 and Do, *et.al*., 1994). The partial derivative of the hedonic price function with respect to a particular attribute is an implicit or shadow price at equilibrium that reflects both the maximum price consumers are willing to pay for an additional attribute and the minimum price suppliers are willing to sell according to their costs (Sanjuan-Lopez, *et. al*., 2009). Beef, like other properties, can be seen as a bundle of multi-dimensional attributes that combine together to give a certain price. It is usually impossible to break it up into its components and market them individually. If information on the prices of beef meat that correspond to its attributes can be obtained, it should be possible to derive the implicit market price. This price thus reflects the purchaser's valuation of the particular set of attributes of each unit.

This study, therefore, examined hedonic analysis for beef demand in Benin metropolis. To achieve this, the study examined the consumers' implicit demand for beef within the framework of a hedonic analysis, and the implicit or shadow price of beef.

**Methodology**

The study was carried out in Oredo Local Government Area of Edo State. Geographically, the state is located between longitude $6^0$ 4' East and $6^0$ 43' East and latitude $5^0$ 44' North and $7^0$ 34' North, has a landmass of 17,802sqKm, a population of 3,497,502 and is divided into 18 local government areas among which is Oredo local government area. Oredo Local Government Area has its headquarters in Benin City. It has an area of 249km$^2$ and a population of 374,671, at the 2006 census. It is the site of major activities in Benin City. Four institutions were purposely selected in Benin City. They are Benson Idahosa University, Idia College, Federal Government College and the University of Benin. These institutions were selected based on the existence of organized beef processing facilities and proper record keeping. The target population for the study was the set of households that buy beef from these institutions in the study area. Primary data were used to generate information for the study. The data were collected with the use of a well-structured questionnaire The simple random sampling technique was used to obtain fifty (50) beef consumers each from the four Institutions, making a sample size of 200. Fifty beef consumers were sampled to account for a representative sample because the average number of patronage from each Institution is one hundred and one (101). The four Institutions are mainly the abattoirs current following the nature of slaughtering in the Metropolis. Ojogho, *et al.,* (2012) showed that most beef marketers in Benin City are retailers who deal directly with the consumers. However, one hundred and seventy (170) copies of the administered questionnaire, representing 85% response rate, containing complete information about the respondents were retrieved. We had to remove 30 observations because of missing or inconsistent data. Data collected were analysed using both descriptive and inferential statistics. The descriptive statistics used were frequency counts, mean, standard deviation and percentages, while the inferential statistics employed the correlation analysis and multiple regression analysis. Correlation Analysis was conducted to better recognise the direction and the bond of the co-movements of the dependent and independent variables. The varimax approach of the Principal Components analysis was used to explain the maximum amount of variance with the fewest number of components. To achieve this, the set of orthogonal eigenvectors of the correlation or covariance matrix of the variables was first determined. The first principal component accounts for the largest percent of the total data variation. The second principal component accounts for the second largest percent of the total data variation, and so on. The first stage hedonic estimates may be used to calculate the implicit price of beef characteristics while the second stage hedonic analysis is used for the demand model. The regression model for the Hedonic price function in implicit form is:

$$P_i = f(z_{ji}, \varepsilon) \quad [1]$$

Where $z_{ji}$ is the $j^{th}$ characteristics of beef in the $i^{th}$ beef consumer, and $P_i$ is the unit price of beef by the $i^{th}$ consumer. Both the level function model and the semi-log models were tested for the study. The explicit Hedonic price function for the study was given as

$$P = \beta_1 z_1 + \beta_2 z_2 + \beta_3 z_3 + \beta_4 z_4 + \beta_5 z_5 + \varepsilon_i \quad [2]$$

Where P is price of beef, $z_1$ is taste, $z_2$ is processing style, $z_3$ is neatness, $z_4$ is hygiene, $z_5$ is freshness, and $z_6$ is packaging method while $\varepsilon_i$ is the error term corresponding to a vertical product characteristic observed by the consumer, but not by the econometrist. The implicit or shadow prices of beef attributes were determined by taking the first partial derivative of the statistically significant equation.

$$\frac{\partial P}{\partial z_1}, \frac{\partial P}{\partial z_2}, \frac{\partial P}{\partial z_3}, \frac{\partial P}{\partial z_4}, \frac{\partial P}{\partial z_5}, \frac{\partial P}{\partial z_6} \quad [3]$$

## RESULTS AND DISCUSSION

**Table 1:** Socio-economic Characteristics of Beef Consumers

| Characteristics | Frequency | Percentage |
|---|---|---|
| **Sex** | | |
| Male | 78 | 45.9 |
| Female | 92 | 54.1 |
| **Age** | | |
| 20-29 | 1 | 0.6 |
| 30-39 | 11 | 6.5 |
| 40-49 | 55 | 32.4 |
| 50-59 | 91 | 53.5 |
| Above 59 | 12 | 7.1 |
| **Marital status** | | |
| Single | 34 | 20.0 |
| Married | 136 | 80.0 |
| **Family size** | | |
| Small (1-5) | 61 | 35.9 |
| Medium (6-10) | 89 | 52.4 |
| Large (above 10) | 20 | 11.8 |
| **Occupation** | | |
| Farmer | 1 | 0.6 |
| Civil servant | 126 | 74.1 |
| Others | 43 | 25.3 |
| **Income (per month)** | | |
| Below ₦20000 | 6 | 4.6 |
| ₦20000-39000 | 19 | 14.5 |
| ₦40000-59000 | 41 | 31.3 |
| ₦60000-79000 | 56 | 32.9 |
| ₦80000-99000 | 31 | 18.2 |

Table 1 shows the socio-economic characteristics of beef consumers in the study area. The Table shows that more than half (54.1%) of the consumers were female while about 45.9% of them were male. This suggests that more of beef consumers who patronise these sale outlets are female. This is expected since female folks are mostly those who patronise households' food stuff shops. The Table also shows that majority of the consumers (85.9%) were in the age range of 40-59 years with 50-59 years age range contributing the highest proportion of 53.5%, followed by 40-49 years age range with 32.4% of the respondents. For marital status, most of the consumers (80.0%) were married while only 20% of the respondents were single who patronised these centres. The Table also shows that more than half (52.4%) of the consumers were in the medium-size household family size, followed by the small family size (35.9%) while the large family size had the least (11.8%) proportion of consumers. A very small proportion (0.6%) of the patronage was farmers while a large proportion (74.1%) of the consumers were civil servants. This may be due, in part, to the low income of farmers relative to the other strata of the society. More of the income earners (32.9%) were in the range of ₦60000-79000, followed by the range of ₦40000-59000 with (31.3%) as patronage of the sales outlets.

**Table 2:** Summary Statistics of the Hedonic Analysis

| Variable | Mean | Standard deviation |
|---|---|---|
| Cost (₦) | 5186.765 | 5578.772 |
| Price/Kg (₦) | 836.573 | 134.568 |
| Taste | 0.479 | 0.496 |
| Processing style | 0.382 | 0.487 |
| Neatness | 0.347 | 0.477 |
| Hygiene | 0.259 | 0.438 |
| Freshness | 0.582 | 0.495 |
| Packaging | 0.300 | 0.531 |

Table 2 shows the summary statistics of the variable used in the Hedonic analysis for the study. The Table shows that the average unit price of beef in the study area was ₦836.57 and ₦134.57 as standard deviation.

The large standard deviation of the unit price of beef in the area suggests that consumers enjoy a wide variation in price of beef. This may be attributed, in part, to the fact that the sales outlets slaughter and sell for community services besides profit. Similarly, taste had the highest variation (0.496), followed by freshness (0.495), then processing style (0.487) and neatness (0.477) while hygiene (0.438) had the least. However, freshness had the highest mean (0.582), followed by taste (0.479). This suggests that beef consumers are more interested in the freshness and taste of beef from these sources.

**Table 3:** Correlation Statistics of Variables in the Hedonic Analysis

| Correlation<br>t-Statistic<br>Probability | PRIC | TASTE | PRSTYLE | NEATNESS | HYGIENE | FRESHNESS | PACKAGING |
|---|---|---|---|---|---|---|---|
| PRIC | 1.000000 | | | | | | |
| TASTE | 0.113256 | 1.000000 | | | | | |
| | 1.477469 | ----- | | | | | |
| | 0.1414 | ----- | | | | | |
| PRSTYLE | 0.496046 | 0.246698 | 1.000000 | | | | |
| | 7.404727 | 3.299552 | ----- | | | | |
| | 0.0000 | 0.0012 | ----- | | | | |
| NEATNESS | 0.174286 | 0.141414 | 0.240069 | 1.000000 | | | |
| | 2.294118 | 1.851538 | 3.205390 | ----- | | | |
| | 0.0230 | 0.0658 | 0.0016 | ----- | | | |
| HYGIENE | 0.193145 | -0.024260 | 0.143060 | 0.218070 | 1.000000 | | |
| | -2.551487 | -0.314534 | 1.873547 | 2.896215 | ----- | | |
| | 0.0116 | 0.7535 | 0.0627 | 0.0043 | ----- | | |
| FRESHNESS | 0.160763 | 0.300923 | 0.249053 | 0.091234 | 0.255347 | 1.000000 | |
| | 2.111188 | 4.089991 | 3.333117 | 1.187479 | 3.423148 | ----- | |
| | 0.0362 | 0.0001 | 0.0011 | 0.2367 | 0.0008 | ----- | |
| PACKAGING | -0.006179 | 0.024678 | 0.057129 | 0.170295 | 0.197764 | 0.119342 | 1.000000 |
| | -0.080088 | 0.319961 | 0.741683 | 2.239988 | 2.614967 | 1.557988 | ----- |
| | 0.9363 | 0.7494 | 0.4593 | 0.0264 | 0.0097 | 0.1211 | ----- |

Table 3 shows the co-movement of the Hedonic variables of beef in the study area. The Table shows that most of the variables were positively correlated with the price of beef and statistically significant at the 1%, 5% and 10% levels of significance except packaging which is negatively correlated with price and which is not statistically significant at any of the above levels of significance. Also, taste was not statistically significant at any of the above levels of significance. The Table also shows that processing style had the highest correlation co-efficient (0.50) and the most significant among the variable with price. This was followed by hygiene (0.19), neatness (0.17) and freshness (0.16) which was respectively significant at the 1%, 5% and 5% levels of significance. This implies that the processing style for beef in the study area is of paramount importance in the patronage and consumption of the beef from these sales outlets.

**Table 4:** Un-rotated Factor Loadings and Communalities for Taste, Processing Style, Neatness, Hygeine, Freshness, Packaging, Sex, Marital status, Family size, Occupation and Sales outlets

| variable | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 | Factor 6 | Factor 7 | Factor 8 | Factor 9 | Factor 10 | Communality |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Taste | 0.208 | 0.344 | -0.208 | 0.288 | 0.683 | 0.078 | -0.108 | 0.068 | 0.416 | -0.225 | 1.000 |
| Prstyle | 0.200 | 0.585 | 0.195 | 0.331 | 0.029 | 0.137 | 0.661 | 0.100 | -0.004 | 0.066 | 1.000 |
| Neatnes | 0.524 | 0.478 | 0.235 | 0.084 | -0.001 | -0.175 | -0.356 | 0.066 | -0.045 | 0.520 | 1.000 |
| Hygiene | 0.100 | -0.023 | 0.607 | 0.511 | -0.161 | -0.319 | -0.152 | 0.430 | 0.137 | -0.070 | 1.000 |
| Freshnes | 0.215 | 0.250 | 0.368 | 0.397 | -0.054 | 0.531 | -0.256 | -0.132 | 0.005 | -0.480 | 1.000 |
| Packagi | 0.279 | 0.272 | -0.293 | 0.173 | -0.648 | -0.299 | -0.131 | 0.079 | 0.357 | -0.270 | 1.000 |
| Sex | -0.106 | 0.005 | 0.529 | -0.453 | 0.085 | -0.033 | 0.241 | -0.010 | 0.633 | 0.191 | 1.000 |
| Mstatus | 0.621 | -0.174 | 0.269 | -0.066 | 0.024 | -0.429 | 0.302 | -0.260 | -0.291 | -0.281 | 1.000 |
| Fsize | 0.528 | -0.522 | 0.195 | 0.291 | 0.003 | -0.075 | 0.134 | -0.549 | 0.004 | 0.027 | 1.000 |
| Occup | 0.628 | -0.328 | -0.130 | -0.056 | -0.002 | 0.448 | 0.177 | 0.472 | 0.052 | -0.140 | 1.000 |
| Soutlet | 0.285 | 0.223 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -0.170 | 0.000 | 0.000 | 0.160 |
| variance | 1.643 | 1.285 | 1.134 | 0.045 | 0.924 | 0.920 | 0.879 | 0.849 | 0.810 | 0.770 | 10.160 |
| % var. | 0.149 | 0.117 | 0.103 | 0.086 | 0.084 | 0.084 | 0.080 | 0.077 | 0.074 | 0.070 | 0.924 |

Prstyle = processing style, package = packaging, Soutlet = sales outlets

Table 4 shows the loadings and communalities of the possible determinants of custom and price of beef in the area. For the determinants of beef meat, 10 factors were extracted from the 11 variables. All variables were well represented by the 10 chosen factors, given that the corresponding communalities are generally high. For example, 1.000, or 100%, of the variability in taste was explained by the 10 factors. Also, among the variables, the 10 chosen factors explain most of the total data variation (0.924 or 92.4%). It can be concluded that the first ten factors account for most of the total variability in data. The remaining factor accounts for a very small proportion of the variability (close to zero) and was likely unimportant.

**Table 5:** Rotated Factor Loadings and Communalities (Varimax Rotation) for Taste, Processing Style, Neatness, Hygeine, Freshness, Packaging, Sex, Marital status, Family size, Occupation and Sales outlets

| Variable | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 | Factor 6 | Factor 7 | Factor 8 | Factor 9 | Factor 10 | Communality |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Taste | 0.089 | -0.033 | -0.043 | 0.005 | 0.144 | 0.065 | 0.113 | 0.973 | -0.001 | 0.063 | 1.000 |
| Prstyle | 0.139 | 0.054 | -0.039 | 0.017 | 0.113 | 0.051 | 0.969 | 0.113 | 0.059 | -0.079 | 1.000 |
| Neatnes | 0.983 | 0.131 | 0.004 | 0.059 | 0.003 | -0.023 | 0.090 | 0.052 | 0.008 | -0.026 | 1.000 |
| Hygiene | 0.078 | 0.974 | -0.001 | 0.105 | 0.135 | -0.066 | 0.065 | -0.022 | 0.076 | -0.012 | 1.000 |
| Freshnes | 0.053 | 0.129 | 0.079 | 0.048 | 0.958 | 0.089 | 0.117 | 0.150 | -0.101 | 0.005 | 1.000 |
| Packagi | 0.101 | 0.090 | -0.032 | 0.984 | 0.046 | 0.030 | 0.017 | 0.004 | -0.086 | -0.029 | 1.000 |
| Sex | 0.006 | 0.071 | -0.010 | -0.084 | -0.090 | -0.031 | 0.055 | -0.001 | 0.988 | 0.018 | 1.000 |
| Mstatus | 0.089 | 0.008 | 0.361 | 0.032 | -0.016 | 0.087 | 0.091 | -0.082 | -0.023 | -0.915 | 1.000 |
| Fsize | 0.041 | -0.014 | 0.925 | -0.038 | 0.092 | 0.091 | -0.046 | -0.045 | -0.012 | -0.346 | 1.000 |
| Occup | -0.030 | -0.059 | 0.079 | 0.029 | 0.080 | 0.985 | 0.047 | 0.062 | -0.032 | -0.070 | 1.000 |
| Soutlet | 0.244 | -0.166 | 0.075 | 0.110 | 0.117 | -0.016 | 0.117 | 0.082 | -0.001 | -0.143 | 0.160 |
| Variance | 1.084 | 1.032 | 1.009 | 1.009 | 1.008 | 1.008 | 1.006 | 1.005 | 1.004 | 0.994 | 10.160 |
| % var. | 0.099 | 0.094 | 0.092 | 0.092 | 0.092 | 0.092 | 0.091 | 0.091 | 0.091 | 0.090 | 0.924 |

Prstyle = processing style, package = packaging, Soutlet = sales outlet

Table 5 shows the rotated factor loadings and communalities using the varimax rotation, the result shows that neatness (0.983) and hygiene (0.974) had large positive loadings on factor 1 and factor 2 respectively*;* Packaging (0.984) had large positive loadings on factor 4, while Freshness (0.958) had large positive loadings on factor 5, and so these factors are labeled as search (environmental) qualities. Taste (0.973) had large positive loadings on factor 8, so, these properties were labeled experience attribute. Processing style (0.969) had large positive loadings on factor 7, and so was labeled credence attribute. Taste (0.973) had large positive loadings on factor 8, so was labeled among the experience properties. This implies that these factors, namely taste, neatness, hygiene, processing style, freshness and packaging, are inter-related with one another and have bearing on the custom and price of beef in Benin metropolis. Thus it is expected that fresh beef from slaughter houses which are neat and hygienic, with the right processing style and packaging will command higher custom than similar beef meat of the same quantity. The Table also shows that family sizes (0.925) had large positive loadings on neatness while occupation (0.985) had large positive loadings on packaging, and so were labeled as producers' socio-economic characteristics.

**Table 6:** The Estimated Models Parameters and Their Associated Asymptotic Errors

| Attributes | Linear model | $\frac{\delta P}{\delta Q_i}$ |
|---|---|---|
| | **Co-efficient** | **Implicit price ₦** |
| Taste | 229.2738*** (70.49509) | 229.27 |
| Processing style | 163.0454** (72.66963) | 163.05 |
| Neatness | 227.1029*** (72.63317) | 227.10 |
| Hygiene | 139.1095* (81.56934) | 139.11 |
| Freshness | 380.2162*** (67.84622) | 380.22 |
| Packaging method | 110.7017* (63.73088) | 110.70 |
| R-squared | 0.901087 | |
| Adjusted R-squared | 0.892949 | |

**Source:** Field survey, 2012 * significant at 10%, ** significant at 5%, *** significant at 1% level

Table 6 shows the estimated model parameters and their associated asymptotic errors. The Table shows that the R-square of the model is 90.1%. This implies that the taste, processing style, neatness, hygiene, freshness and packaging method explain about 90% variation of the price of beef in the study area. The Adjusted R-square value of 0.89 implies that any additional explanatory variable will not have any noticeable change in the R-square value and thus will not have much effect in explaining the price of beef in the study area. The model shows that taste, neatness, and freshness of beef with respective coefficients of 229.27, 227.10 and 380.21 were significant at 1% level of significance, processing style with co-efficient of 163.05 which is significant at 5% level, and packing method and hygiene which are significant at 10% level of significance. It implies that these characteristics are statistically significant in determining the price of beef in the study area. The Table also shows the shadow or implicit price of beef attributes at equilibrium that reflects both, the maximum price consumers are willing to pay for an additional attribute, and the minimum price suppliers are willing to sell according to their costs in the study area. The results show that a consumer is strongly willing to pay additional ₦229.27 for a beef with good taste, ₦227.10 for neat beef, ₦163.05 for beef of 'proper' processing style and ₦380.21 for fresh beef in the study area as indicated by their level of significance. Similarly, the consumer is willing to pay additional ₦110.70 for beef which is properly packaged and ₦139.11 for beef processed in a hygienic environment in the study area, though not with the degree of willing as for taste, neatness and freshness. This implies that a consumer is strongly willing to pay additional ₦836.58 per Kg for neat, fresh and tasty beef which ordinarily will cost ₦836.57 per Kg. Thus a consumer will willingly pay about twice the normal price for a Kg of beef in the study area. However, other consumers who are keen on the modern processing style for beef production will pay an additional ₦163.05 per Kg which amounts to about ₦1700.00 per Kg of beef while others who possible value, in addition, well packaged beef from a hygienic environment will pay additional ₦249.81 per Kg which amounts to ₦1900.00 per Kg of beef. This agrees with Larissa, *et al*., (2006) in a Paper, 'The Taste for Variety: A Hedonic Analysis', prepared for presentation at the International Association of Agricultural Economists Conference, Gold Coast, Australia, were they reported that a representative household would be willing to pay an additional 1.95% to 2.73% for a 50% increase in variety, *ceteris paribus*.

## CONCLUSION

The study examined hedonic demand analysis for beef in Benin metropolis. To achieve this, the study examined the consumers' implicit demand for beef within the framework of a hedonic analysis, and the implicit or shadow price of beef. Both primary and secondary data were used to generate information for the study. The study shows that a consumer is strongly willing to pay additional ₦229.27 per Kg of beef with good taste, ₦227.10 per Kg of neat beef, ₦163.05 per Kg of beef of 'proper' processing style and ₦380.21 per Kg of fresh beef in the study area. This is an indication that the most informed consumers are already showing dissatisfaction with the unwholesome beef that litter the markets from retailers in the area and proper processing style and hygienic environment which contribute to better tease are necessary for improved patronage by beef consumers and a better price tag on beef.

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