Analysis of Cultural Factors as Antecedents of Organic Foods Buyer Behavior in Kenya

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Abstract: The demand for organic foods has been growing exponentially in many countries across the globe. However, the consumption of organic foods in Kenya remains low despite the country’s high potential for production and consumption of organic foods. The purpose of this study therefore, was to explore the antecedents of organic foods buyer behavior in Kenya. The specific objective of this study was to analyze the influence of cultural factors on organic foods buyer behavior in Kenya. The study adopted a positivism research philosophy and a cross-sectional descriptive research design. A proportionate sample of 376 respondents was selected from the target population of 6,130 organic foods buyers from outlets selling certified organic foods in Kenya. A closed ended questionnaire was used to collect primary data for the predictor and response variables. The IBM's Statistical Package for Social Sciences (SPSS) version 21.0 was employed in the data analysis. The IBM’s Statistical Package for Social Sciences (SPSS) version 21.0 was employed in the data analysis. To test the reliability and validity of the research instrument, a pilot study was conducted in Nyeri and Nakuru Counties in Kenya, and a Cronbach’s alpha coefficient of 0.908 was attained which depicted a high reliability for the research instrument. Construct validity was tested by use of Kaiser-Meyer Olkin (KMO) test. The hypothesis was tested using bivariate linear regression model at a significance level of 0.05. The study established that cultural factors had a p-value < 0.05 in the model and hence found to have a statistically significant influence on organic foods buyer behavior in Kenya. This study recommend that marketers should adopt the findings of this study to segment the market, target and position organic food products based on the different consumers of organic foods.

Keywords: Cultura factors, organic foods, antecedent, buyer behavior

1. Introduction

1.1 Background of the Study

Globally, the interest in organically produced food products is rising as a consequence of consumer’s interest in food safety, health considerations, conventional agriculture practices, animal welfare and the rising awareness in environmental protection (Wee, Ishmael, & Ishak, 2014). The demand for organically produced foods, as previously averred is increasing across the globe particularly in the advanced economies of USA, Canada and Western Europe, which consume around 90% of the global output of organic foods (Chauke & Duh, 2019). Consequent to the worldwide trend, it is anticipated that individuals domiciled in emerging economies will probably pay greater consideration to organic foods (Hui, Chi, Lobo, Nguyen, & Long, 2019). Marketing influences such as cost, convenience, products accessibility and product awareness are considered as significant benchmarks for buyers’ decision-making process. Occasionally, these elements may be an encumbrance to buyers in their quest for organic foods by hindering the effortless accessibility of organic food products (FAO, 2021). The East African domestic organic market is relatively small and a substantial amount of organic produce is thus exported with the European Union being the major market (Amudavi, Wambua, Mutung, Aisu, & Adeoluwa, 2021). A considerable number of local consumers regularly regard organic foods as a healthier option, safer, has a better taste and sustains nature in its production process. Organic standards have also been developed in the major East African economics of Kenya, Uganda and Tanzania (UNEP-UNCTAD, 2006). The Kenyan Vision 2030 considers growth in sustainable agriculture and expanding wholesale and retail sector as key drivers in the economic progress of the country. The organic foods industry is bound to be an anchor in the attainment of Vision 2030 through the creation of value for the local organic stakeholders (Government of Kenya, 2007). Despite organics emerging as an important food source and experiencing exponential growth in many developed countries, its consumption is relatively low in Kenya. Further, only a few studies associated with the drivers of buyer behavior of organic foods have been conducted in the Kenya. The rationale for this study therefore, was to explore the antecedents of organic foods buyer behavior in Kenya.

1.2 Problem Statement

The global consumption of organic foods has been growing exponentially. Statistics reveal that in 1999, the total sales of organic foods across the globe were U.S. Dollars 15.2 billion and by the year 2020, the sales had increased to U.S. Dollars 132.74 billion (Shahbandeh, 2023). However, this positive trajectory is more pronounced in the developed economies of North America, the European Union and some Asian countries such as Japan. In contrast, organic food consumption in the developing countries, like Kenya remains low. For instance, 85% of the organic food produce in Kenya is exported as the potential for the local market has
not yet been fully optimized and remains rudimentary (Wangari, 2022). This is despite Kenya having an estimated human population 55 million in the year 2023 with an estimated annual population growth rate of 2%, coupled with a growing middle class with a higher disposable income (National Council for Population and Development, 2020). In order to attain sustainable growth in the Kenyan organic foods industry, expanding the knowledge on the drivers of organic foods buyer behavior then becomes plausible for the organic foods stakeholders.

Existing empirical studies cannot be generalized to Kenya given the demographic and cultural divergence between the populations. Nedra, et al. (2015), Aertesens et al. (2009), Akpan (2016), and Baiyegunhi et al. (2018), explored on the influences of personal, cultural and socio-psychological factors, on organic food buyer behavior respectively. However, each of these studies focused on a single predictor variable among the four (4) proposed by the theory of buyer behavior by Howard and Sheth in 1978, in predicting buyer behavior. In Kenya, factors influencing organic foods buyer behavior have not been adequately documented and generalization of research findings on the phenomenon in the developed countries to the Kenyan organic food buyer behavior context is improbable. Marketing theory antecedents of buyer behavior can be tested in their prediction power of organic foods buyer behavior (Kotler, 2012). In light of the aforesaid, this research aimed at addressing the highlighted knowledge gap; contextual, and theoretical gaps, by exploring the antecedents of organic foods buyer behavior in Kenya.

1.3 Study Objective

The general objective of the study was to explore the influence of cultural factors on organic foods buyer behavior in Kenya.

2. Literature Review

2.1 The Veblenian Social –Psychological Theory

The Veblenian socio-psychological model was advanced by economist Thorstein Veblen in 1899 in his book, “The leisure Class” (Almeida, 2016; Veblen, 1899). The theory postulates that the buyers’ societal and cultural settings are significant determining factors of their purchasing behavior. Further, Veblen argued that what the consumer buys is motivated largely by the need of maintaining social class, status and respect, instead of their intrinsic needs. This model has six significant elements namely; culture, subculture, social class, family, income levels, and reference groups (Mitra & Majuder, 2019). The social pressure on individuals establishes certain behaviors. As a consequence, the society influences the behavior. Culture, subculture, reference groups, social classes, family and the patterns of consumption is perceived as an avenue to achieve and signal social status as buying and consumption of the more excellent goods is an indication of wealth (Moraru, 2011). The theory puts emphasis on how norms and group memberships have a significant impact on human behavior. A consumer as a social being can belong to several groups which can influence his or her buying behavior. The Veblenian effect is a phenomenon grounded on conspicuous consumption. That is, products and services are consumed in a public setup in a conspicuous manner to signal wealth, social status, and power. The price is seen as an “indicator” of both quality and prestige. Despite conspicuous consumption having been central in understanding motivations for consumption of status products, it does not explain why consumers consume expensive wine at home or buy expensive undergarments (Zelwak, 2012). This theory supported the objective that evaluated the influence of cultural factors practices on organic foods buyer behavior in Kenya.

2.3 Empirical Literature

A study by Najib et al. (2021), on socio-cultural factors driving buying intentions for organic foods among the middle-class consumers in Indonesia, revealed that culture significantly influenced how consumers made food choices. This study gathered data from a sum of 527 respondents and Structural Equation Modelling (SEM) was adopted for the data analysis. The Hofstede cultural dimensions influence as predictors of organic foods consumption was confirmed by Komen and Brozina (2009), in an exploration of cultural motives for the consumption of organic foods in Croatia. The study revealed that the cultural dimension of collectivism and individualism were relevant in understanding organic foods buyer behavior. This research adopted a sample of 468 respondents from Norway and 448 respondents from Portugal to collect quantitative data which was analyzed through Structural Equation Modelling (SEM) methods. The impact of religion on organic foods buying behavior was amplified by a research conducted by Bellow, Onyango, and Hallman (2008), on the purchasing of organic foods systems in the United States. The results revealed that the element of religion had a considerable impact on purchasing of organic food products by young moderately religious females in the United States. The study also observed that cultural dissimilarities contributed to the variances in the buyer attitudes and concerns in buying and consuming organic foods. A study by Ham, Jeger and Ivkovic (2015), guided by the Theory of Planned Behaviour(TPB), explored the role of perceived social pressure in shaping the intention to buy organic foods and documented that the cultural perspective proved to be significant in predicting organic foods buyer behavior and that individuals domiciled in countries that were more collectivistic seemed to face more pressure from those who mattered to them and were more eager to conform to their ideas. On the contrary, persons domiciled in principally individualistic countries portrayed stronger attitudes to certain behavior’s and paid less consideration to what other individuals thought or did. This study employed a sample of 411 household shoppers in Croatia, arrived at through convenience sampling and adopted regression approach in the analysis.

Lai, Chong, Sai, and Ooi (2010), study on culture and consumer behavior dissimilarities between Malays and Chinese in Malaysia divulged that ethnic groups who have diverse religious and cultural backgrounds may show differences in decision making by applying the Hofstede’s...
cultural dimensions. Correspondingly, a research by Maya et al. (2011), which employed random sampling in eight European countries and adopted Structural Equation Modelling (SEM) approach in the analysis, explored the impact of value systems on organic food consumption in Europe. The findings indicated that cultural values could explain the differences between different consumers in their decision process of the buying intention of organic food products. The research in Fiji by Devi, Singh, and Naz (2015), on cross-cultural food consumption behavior, pointed out that buyer behavior is overwhelmingly exposed to cultural factors such as buyer culture, sub-culture, nationality, and social class, and which control food consumption patterns. This study was guided by the Engel-Kollat-Blackwell model and Consumer Culture Theory (CCT). The study revealed that culture was inversely correlated with organic food choices in Fiji and this was attributed to cultural assimilation, referred to as acculturation. The findings of this research had a divergence with the conclusions of Najib et al. (2021) which indicated that cultural factors were positively related with organic food choices. Therefore, based on the reviewed literature, it was hypothesized that: H01: Cultural factors do not have a statistically significant influence on organic foods buyer behavior in Kenya.

2.4 Conceptual Framework

In this study, cultural factors were perceived to be the predictors for the weighted scores for the organic foods’ buyer behavior. Buyer behavior was measured using primary data and a weighted score for the same was transformed to be continuous.

![Conceptual Framework](image)

Figure 1: Conceptual Framework for Cultural Factors and Organic Foods Buyer Behavior

2.5 Research Gaps

The reviewed literature indicated that there was scanty literature on the antecedents of organic foods buyer behavior in Kenya. There was no adequate research to fill the dearth in knowledge on why there is low consumption of organic foods in Kenya despite the high population and growing disposable income. Most of the studies related to organic foods buyer behavior have been conducted in the developed economies of the globe. Prior studies largely focused on subjective norms, health consciousness, perceived behaviour control, environmental concerns and attitude constructs and adopted theory of planned behaviour to analyze the organic foods consumption behaviours. The theories of Buyer Behavior by Howard and Sheth, Veblenian Socio-Psychological theory, Freud’s Psycho-analytical model and the Engel-Kollat-Blackwell model have not been adequately tested in preceding studies on organic foods buyer behavior.

3. Research Methodology

3.1 Philosophy, Design and Instrumentation and Data collection

This study adopted a positivist research philosophy. This research philosophy commonly adopts an inferential approach and a deductive process. The target population of the study was 6,130 organic foods buyers and a proportionate sample of 376 was selected. Primary data was collected using a structured questionnaire. The measurement of the cultural factors was based on opinion, belief and an attitude based on the specific organic foods buyer (s). A drop and pick methods were used as data collection method. These constructs do not have a direct measure. As such a five-point ordinal scaled tool was used with the equivalences of strongly disagree (1) on one side with a scale, followed by disagree (2), neutral (3), agree (4) and strongly agree (5) on the other side of the scale (Saunders and Thornhill (2007). The study utilized the Statistical Package for Social Sciences (SPSS) version 21 in data analysis process. SPSS was preferred owing to its systematic capabilities on a wide range of statistical analyses and presentations (Porter & Gujarat, 2009). (Saunders, Lewis, & Thornhill, 2007; Malhotra & Dash, 2016).

3.2 Stability and Validity of Instrumentation

The test of stability of the data collection instrument was carried out using Cronbach Alpha Coefficient. Internal consistency test results are presented in Table 1. The results in this Table show that reliability of this construct using Cronbach was 0.730. Zikmund, Babin, Griffin and Carr (2010), and Cooper and Schindler (2013), pointed that a Cronbach’s alpha coefficient of 0.7 and above is acceptable for a variable in a social study. The results further show that KMO coefficient of 0.750>0.5 and hence confirming adequate level of construct validity among the eight (8) measures of the variable; cultural factors.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Degree of Freedom</th>
<th>KMO</th>
<th>Number of Items</th>
<th>Cronbach Alpha Coefficient</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability test</td>
<td>-</td>
<td>-</td>
<td>08</td>
<td>-</td>
<td>Acceptable Reliability</td>
</tr>
<tr>
<td>Construct validity test</td>
<td>28</td>
<td>0.750</td>
<td>08</td>
<td>-</td>
<td>Adequate Construct Validity</td>
</tr>
</tbody>
</table>

3.3 Data Analysis and Presentation of Results

Data analysis was carried in three phases; that is, descriptive analysis, test of regression assumptions and then inferential analysis. The eight (8) parameters of cultural factors had mean of 3.428 and standard deviation of 1.1614. Indicating a variation in responses across the scale and across the respondents. This was followed by test of regression assumptions and finally inferential analysis. Hypothesis testing was done using simple linear regression model.
Model R-Square, ANOVA statistics (F Statistic and associated p-value) and regression coefficients (Beta and associated p-value) were extracted. The equation used in this study was in the form; \( Y = \alpha + \beta_1 + \varepsilon \); where buyer behavior (BB) is (predictand) and \( \beta_1 \) is cultural factors (predictor). This equation is supported by Garson, 2012.

4. Findings & Discussions

4.1 Response Rate

<table>
<thead>
<tr>
<th>Establishment</th>
<th>Questionnaires Distributed</th>
<th>Questionnaires Returned</th>
<th>Response Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers Market Vendors</td>
<td>105</td>
<td>73</td>
<td>69.5</td>
</tr>
<tr>
<td>Supermarkets</td>
<td>34</td>
<td>25</td>
<td>73.5</td>
</tr>
<tr>
<td>Green Groceries</td>
<td>184</td>
<td>140</td>
<td>76.1</td>
</tr>
<tr>
<td>Basket Schemes</td>
<td>23</td>
<td>17</td>
<td>73.9</td>
</tr>
<tr>
<td>Hotels and Catering</td>
<td>30</td>
<td>23</td>
<td>76.7</td>
</tr>
<tr>
<td>Total</td>
<td>376</td>
<td>278</td>
<td>73.9</td>
</tr>
</tbody>
</table>

The results in Table 2 show that out of the three hundred and seventy-six (376) questionnaires distributed to the respondents (Organic foods buyers), two hundred and seventy-eight (278) were filled and returned for analysis. In the case of the 105 questionnaires distributed to respondents in farmers market vendors category, seventy-three (73) were returned while in the case of the ones distributed to supermarkets, 25 were returned, giving a response rate of 69.5% and 73.5% respectively. The green groceries category, baskets schemes category and hotels and catering category had a response rate of 76.1%, 73.9% and 76.7% respectively. These results show that there was adequate representation of the different categories in the response and hence the overall response rate of 73.9% was deemed adequate for this study. Baruch and Holtom (2008), observed that the average response rate for studies utilizing data collected from individuals was 52.7% with a standard deviation of 20.4. Saunders & Lewis (2012), asserted that a response rate of 70% is regarded as very good for a descriptive study. This thus, affirms the adequacy of the response rate of 73.9% registered by this study.

4.2 Test of Regression Assumptions

Statistical literature view that before data analysis is done, it is important to assess a number of statistical assumptions about the distribution of the dependent variable and the properties of the variables in general. The assumptions are basically on the response variable distribution and that of the residual’s distribution.

4.2.1 Test of Normality for Buyer Behavior
Buyer behavior was subjected to normality test using Q-Q plot and the test of outliers using Box plot. The preliminary evaluation indicated that the data was not normally distributed and had several outliers. The data was subjected to a Box-Cox statistical transformation. The final results are presented in Figure 2.

The Figure shows that the Q-Q plot is cumulatively along the diagonal line from point (-3, -3) point (+3, +3) and hence the measure for buyer behavior was confirmed to be normally distributed. Further, Box and Whisker plot indicates that the median of the interquartile range of the spread is about the middle of the Box and the associated whiskers are also about the same size on both sides of the box, meaning that the distribution is quite symmetric and hence no outliers.

4.2.2 Test of Autocorrelation for Cultural Factor Measures
The test of independence for cultural factors was carried out using Durbin-Watson d statistics. A Durbin-Watson d statistics of 1.595 was extracted. This was within the recommended range of 1.5 and 2.5 for an acceptable level of no autocorrelation in a variable measure and hence acceptable.

4.2.3 Test of Linearity
In order to explore the influence of cultural factors on organic foods buyer behavior in Kenya, a null hypothesis was tested; $H_0$: Cultural factors do not have a statistically significant influence on organic foods buyer behavior in Kenya. The weighted scores of cultural practices were regressed against weighted measures of organic foods buyer behavior. Model summary, associated ANOVA and regression model coefficients were generated and the results presented in Table 3.

### 5. Conclusions and Recommendations

#### 5.1 Conclusions

The associated ANOVA generated $F$ statistic of 46.726 and associated $p$-value of .000. Based on these two statistics, this study therefore, concludes the first study hypothesis ($H_0$); that, “there is no statistically significant influence of cultural factors on organic foods buyer behavior in Kenya” is rejected, and confirms that indeed, there is a positive and statistically significant influence of cultural factors on organic foods buyer behavior in Kenya at 95% level of confidence.

#### 5.2 Recommendations

This study recommends to the dealers of the organic foods industry that marketing tools/marketing mix variables (pricing/affordability, distribution/availability, marketing communications/awareness and product attributes/acceptability) for organic foods can be skewed towards these two categories in terms of education level. Further the study recommends, that organic foods market segmentation, targeting and positioning (S.T.P) can be contextualized with the findings of this study for enhanced benefits. Attention should be given to cultural dimensions and associated sub-culture can amidst other antecedent of organic foods buyer behavior be applied to stimulate higher uptake of organic foods among the Kenyan population.

### References


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**Table 3: Simple Linear Regression Output for Cultural Factors and Organic Foods Buyer Behavior**

<table>
<thead>
<tr>
<th>Cultural Factors Model</th>
<th>R</th>
<th>$R^2$</th>
<th>Sums of Squares</th>
<th>F (1,276)</th>
<th>Beta ($\beta$)</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Fitness</td>
<td>0.381</td>
<td>0.145</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANOVA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>39.522</td>
<td>46.726</td>
<td></td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>233.450</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>272.972</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.890</td>
<td>-6.691</td>
<td></td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Factors</td>
<td>.553</td>
<td>6.836</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that the $R$ was 0.381. This implies that cultural factors had a moderate correlation with organic foods buyer behavior in Kenya. In addition, the $R$-Square was 0.145. This implies that these factors accounted for approximately 14.5% of the variations in organic foods buyer behavior in Kenya. The Table further show that $F$ statistic was 46.726 and the associated $p$-value of 0.000< .05. This implies that the cultural factors had a statistically significant influence on organic foods buyer behavior in Kenya at a 5% level of significance. Based on these results the Null hypothesis ($H_0$) that stated: cultural factors do not have statistically significant influence on organic foods buyer behavior in Kenya was rejected and instead confirmed that the factors have a statistically significant influence on buyer behavior in Kenya. Regression coefficients of the model shows that cultural factors have beta coefficient of 0.553 and associated $p$ value of 0.000. This implies that a unit change in cultural factors is associated with a .553 change in organic foods buyer behavior in Kenya. The resultant simple linear regression model for the cultural factors is therefore:

**Organic Foods BB= -1.890 + .553 (Cultural Factors)**

These findings are dissimilar to the findings of a research conducted in Fiji by Devi, Singh, and Naz (2015), on cross-cultural food consumption behavior, which revealed that culture was not significantly correlated with organic food choices in Fiji, and this was attributed to cultural assimilation, referred to as acculturation. Having convergence on the cultural influence outcomes from this Kenyan study, was the research conducted in Indonesia by Najib *et al.* (2021), on socio-cultural factors driving buying intentions for organic foods among the middle-class consumers in Indonesia, which revealed that culture significantly influenced how consumers made food choices. The difference between the findings of this study, and the findings of the studies conducted in Fiji can be attributed to the cultural (contextual) gaps between the organic foods’ buyers in Kenya on one hand, and the Fijian organic foods buyers on the other hand.

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The predictor (cultural factors) and the predictand (buyer behavior) were subjected to a linearity test using Pearson’s correlation coefficient ($r$). A correlation coefficient of 0.381* was generated at $p$-value of .000. This statistic implied that co-movement was present between cultural factors and buyer behavior. Simple linear model was hence considered appropriate for testing the study null hypothesis ((Porter & Gujarati, 2009).

### 4.3 Inferential Results
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