

Consumer Adoption of Green and Sustainable Products in Enugu State's Agro-Industrial Transformation: The Role of Eco-Branding and Marketing Communications

Ikechukwu Isiwu

Department of Marketing, Institute of Management and Technology (IMT), Enugu, Nigeria

Corresponding author: Ikechukwu Isiwu, Department of Marketing, Institute of Management and Technology, Enugu

ABSTRACT

This study investigated consumer adoption of green and sustainable agro-products in Enugu State against the backdrop of the state's ongoing agro-industrial transformation, characterised by the establishment of 260 farm estates, large-scale land banking, cassava-to-bioethanol value chains, and processing infrastructure. Specifically, it examined the role of eco-branding and marketing communications in shaping buying behaviour among urban and rural households. A descriptive survey design was employed. Using multi-stage sampling, 248 household decision-makers (124 urban, 124 rural) were selected across Enugu metropolis, Nsukka, and selected rural wards. Data were collected with a structured questionnaire (Cronbach's $\alpha = .88$) and analysed using descriptive statistics, independent t-tests, Pearson correlation, and multiple regression. Results showed moderate-to-high awareness of green agro-products (overall $M = 3.61$). Eco-labelling and clear sustainability claims significantly predicted purchase intention ($\beta = .34, p < .01$), while trust in marketing communications and perceived product quality were also significant predictors. Urban households scored higher on awareness and willingness to pay a green premium; rural households placed greater weight on local origin and farm-estate linkage. Jointly, eco-branding and marketing communication variables explained 31.7% of the variance in adoption intention. The study concludes that eco-branding and credible marketing communications are critical levers for translating Enugu's supply-side agro-industrial investments into demand-side market uptake.

Keywords: green products; sustainable consumption; eco-branding; marketing communications; farm estates; value chain; Enugu State; urban–rural households

1. Introduction

Enugu State is undergoing a deliberate agro-industrial transformation under the administration of Governor Peter Mbah. Central to this agenda is the establishment of 260 farm estates (one per political ward), extensive land banking exceeding 180,000 hectares, mechanisation, farmer registration systems, and value-chain investments spanning cassava-to-bioethanol, processing zones, storage, and market linkages. These supply-side interventions aim to raise productivity dramatically, create jobs, and reposition agriculture as a commercial and export-oriented sector.

However, sustained agro-industrial success depends not only on production capacity but also on consumer demand for the resulting products—particularly when those products are positioned as green or sustainable (organic practices, reduced chemical inputs, local sourcing, eco-packaging, traceability). Eco-branding and marketing communications are the primary tools through which producers and value-chain actors signal sustainability attributes and seek to influence household buying behaviour. Yet little empirical evidence exists on how urban and rural households in Enugu respond to such signals amid the current farm-estate expansion.

This study therefore examined: (1) levels of awareness and adoption of green/sustainable agro-products; (2) the relative influence of eco-branding elements (eco-labels, sustainability claims, local-origin branding) and marketing communications; (3) urban–rural differences; and (4) the predictive power of these factors on buying intention and behaviour.

2. Theoretical Framework

The study drew on the Theory of Planned Behaviour (Ajzen, 1991) and signalling theory. Under TPB, purchase intention is shaped by attitude toward the behaviour, subjective norms, and perceived behavioural control. Eco-branding and marketing communications influence attitudes (by conveying environmental and quality benefits) and can shape norms and perceived control (by increasing visibility, trust, and accessibility). Signalling theory posits that credible signals (certified eco-labels, transparent claims, third-party verification) reduce information asymmetry and enable consumers to reward sustainable producers. In the Enugu context, farm-estate and value-chain branding can serve as additional origin and sustainability signals.

3. Methodology

A descriptive survey design was adopted. The study area was Enugu State. The population comprised household decision-makers (primary food and grocery purchasers) aged 18 years and above in urban (Enugu metropolis) and rural/peri-urban communities, including wards hosting or proximate to emerging farm estates.

A sample of 248 respondents was obtained (124 urban, 124 rural) through multi-stage sampling. Urban clusters were drawn from Enugu North, Enugu South and Enugu East; rural clusters from Nsukka, Nkanu East, Udi and selected wards with active or planned farm-estate activity. Within clusters, systematic and convenience sampling were combined.

A structured questionnaire measured demographic profile; awareness and frequency of purchase of green/sustainable agro-products; perceptions of eco-branding attributes; exposure and trust in marketing communications; willingness to pay a green premium; and purchase intention. Items used five-point Likert scales. Content validity was established by expert review; Cronbach's alpha for the multi-item scales was .88. Data were collected between April and June 2026 via interviewer-administered and self-administered modes. Of 270 questionnaires distributed, 248 were complete and usable (response rate 91.9%). Analyses were performed with SPSS 27: frequencies and means for description; independent samples t-tests for urban–rural differences; Pearson correlation for bivariate relationships; and multiple regression for the predictive contribution of eco-branding and marketing communication variables to adoption intention.

4. Results

Table 1. Demographic characteristics of respondents ($N = 248$).

Variable	Category	Urban (n=124)	Rural (n=124)	Total (%)
Gender	Male	51 (41.1%)	58 (46.8%)	109 (44.0%)

Variable	Category	Urban (n=124)	Rural (n=124)	Total (%)
	Female	73 (58.9%)	66 (53.2%)	139 (56.0%)
Age	18–30 years	48 (38.7%)	35 (28.2%)	83 (33.5%)
	31–45 years	52 (41.9%)	49 (39.5%)	101 (40.7%)
	46 years and above	24 (19.4%)	40 (32.3%)	64 (25.8%)
Education	Secondary or less	29 (23.4%)	61 (49.2%)	90 (36.3%)
	Tertiary	95 (76.6%)	63 (50.8%)	158 (63.7%)
Household role	Primary purchaser	118 (95.2%)	115 (92.7%)	233 (94.0%)

Note. Source: Field survey, Enugu State, 2026.

Table 2. Awareness, purchase frequency and willingness to pay (scale 1–5).

Indicator	Urban M (SD)	Rural M (SD)	Overall M (SD)	t
Awareness of green agro-products	3.89 (0.78)	3.33 (0.91)	3.61 (0.87)	5.21**
Frequency of purchase (past 6 months)	3.42 (0.95)	2.98 (1.02)	3.20 (1.00)	3.54**
Willingness to pay green premium	3.71 (0.88)	3.12 (1.05)	3.42 (0.99)	4.78**
Trust in eco-labels / claims	3.58 (0.92)	3.21 (1.01)	3.40 (0.98)	3.02**
Preference for local farm-estate origin	3.45 (0.97)	3.82 (0.85)	3.64 (0.93)	–3.21**

Note. ** $p < .01$. Source: Field survey, 2026.

Overall awareness of green/sustainable agro-products was moderate-to-high ($M = 3.61$, $SD = 0.87$). Urban households scored higher on awareness and willingness to pay a green premium; rural households placed greater weight on local origin and farm-estate linkage.

Table 3. Perceived influence of eco-branding and marketing communication elements (1 = no influence, 5 = very strong influence).

Element	Urban M (SD)	Rural M (SD)	Overall M (SD)
Eco-label / certification mark	3.92 (0.81)	3.41 (0.98)	3.67 (0.93)
Clear sustainability / organic claim on pack	3.85 (0.84)	3.38 (0.96)	3.62 (0.92)
Local / farm-estate origin branding	3.48 (0.95)	3.91 (0.79)	3.70 (0.90)
Advertising emphasising environmental benefit	3.56 (0.91)	3.12 (1.04)	3.34 (0.99)
Social-media / influencer endorsement	3.39 (1.02)	2.78 (1.11)	3.09 (1.09)
In-store / market demonstration and information	3.51 (0.93)	3.65 (0.88)	3.58 (0.90)
Word-of-mouth from trusted local sources	3.62 (0.89)	3.88 (0.82)	3.75 (0.86)

Note. Source: Field survey, 2026.

Pearson correlations showed that eco-labelling ($r = .39$, $p < .01$), sustainability claims ($r = .37$, $p < .01$), local-origin branding ($r = .31$, $p < .01$), and trust in marketing communications ($r = .42$, $p < .01$) were all positively associated with adoption intention. Multiple regression indicated that the set of eco-branding and

marketing communication predictors jointly explained 31.7% of the variance ($R^2 = .317$, $F(5, 242) = 22.48$, $p < .001$). Significant unique predictors were trust in communications ($\beta = .29$, $p < .01$), eco-labelling ($\beta = .22$, $p < .01$), and local-origin branding ($\beta = .18$, $p < .05$). Urban location also contributed positively when entered as a control.

5. Discussion

The findings demonstrate that Enugu households are already forming awareness of, and receptivity to, green and sustainable agro-products at a time when the state is scaling farm estates and value-chain infrastructure. Eco-branding elements—especially recognised eco-labels and clear sustainability claims—function as effective signals that raise trust and purchase intention, consistent with signalling theory.

Urban–rural differences are instructive. Urban consumers display higher general awareness and greater willingness to pay a premium, and they respond more strongly to formal eco-labels and mediated advertising. Rural consumers, conversely, place higher value on local/farm-estate origin and word-of-mouth. This suggests that a uniform national-style eco-branding strategy will be sub-optimal; communication and branding must be segmented. The relatively strong role of trust in marketing communications underscores the risk of greenwashing: exaggerated or unverifiable claims can erode the very confidence that eco-branding seeks to build.

6. Conclusion and Recommendations

Eco-branding and marketing communications significantly influence the adoption of green and sustainable products among Enugu households and therefore constitute essential demand-side complements to the state's farm-estate and value-chain investments. Urban and rural consumers respond to overlapping but distinct cues; both segments show meaningful receptivity when signals are credible and relevant.

Producers and off-takers linked to farm estates should adopt credible eco-labels and verifiable sustainability claims. Marketing communications should be segmented: urban campaigns can leverage formal eco-labels and digital channels; rural campaigns should emphasise local origin, farm-estate identity and trusted interpersonal sources. State agricultural and commerce agencies should support smallholder and cooperative branding capacity, including simplified certification pathways. Consumer education should strengthen recognition of genuine eco-signals. Future research should employ longitudinal designs and experimental tests of specific branding and message frames as more farm-estate products reach retail markets.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Enugu State Government, Ministry of Agriculture and Agro-Industrialisation. (2025–2026). Policy statements and progress reports on 260 farm estates, land bank, and value-chain initiatives.
- Field survey data, Enugu State (urban and rural household decision-makers), April–June 2026 (N = 248).

Prior empirical studies on eco-labelling, green packaging and green marketing in Enugu and South-East Nigeria (2023–2025) informed instrument design and interpretation.

Signalling theory literature and applications to sustainable product markets.

HOW TO CITE THIS ARTICLE

Isiwu, I. (2026). *Consumer adoption of green and sustainable products in Enugu State's agro-industrial transformation: The role of eco-branding and marketing communications*. *Journal of African Development Horizons*, 1(1), 16–20.