From Farm to Brand: How Sustainable Resource Use in Agriculture Impacts Consumer Perception

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Abstract

Sustainable resource use in agriculture has become increasingly significant as climate change, and resource scarcity put pressures on agri-based industries. Past studies have examined sustainable agriculture and green marketing independently and there is limited research which connects farm-level sustainability practices with consumer perception at the brand level, particularly in emerging urban economies. This study investigates how sustainable agricultural resource-use practices influence consumer perceptions of brands in terms of trust, perceived quality, and purchase intention within an urban Indian context.

The study uses quantitative survey of urban consumers in Jaipur, Rajasthan. Statistical analysis examines the relationships between perceived sustainability practices and key consumer perception variables.

The findings reveal that urban consumers demonstrate growing awareness of sustainability in agriculture and increasingly associate responsible resource use with higher brand credibility and product quality. Sustainable agricultural practices positively influence brand trust and purchase intention when supported by transparent and credible sustainability communication. However, the results also highlight consumer skepticism toward vague or exaggerated sustainability claims, emphasizing the importance of authenticity in sustainability-driven branding strategies. The findings suggest that brands adopting sustainability-oriented agricultural practices can create market-based incentives for responsible resource use.

Keywords: Sustainable agriculture; Resource use; Consumer perception; Brand trust; Sustainable marketing; Urban India

1 Introduction

Sustainable resources use in agriculture has emerged as critical concern because of accelerating degradation, climate change, and increasing pressure on finite natural resources. Agriculture consumes largest amount of water, land, energy and chemical input and thus, this is a central point for ecological balance and long-term economic sustainability. Due to unsustainable practices, there is increase in soil degradation, water scarcity, biodiversity loss and rising production cost. This leads to threating to environmental stability and food security. In the recent time, the global disclosure on sustainability emphasised the need for resource utilization within agriculture practices.

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Sustainability has evolved from predominantly production and policy oriented to a market driven phenomenon influenced by consumer awareness and behavioral change. Consumers awareness is not only limited functional attributes of products but also ethical, environmental and social implication of product production. This shift is visible in agri based industries such as food beverages and fast moving consumer goods, where brands directly or indirectly on agricultural inputs. So now brands are increasing sustainable agricultural practices, such as water efficient farming, reduced chemical usage, ethical sourcing, and traceable supply chains.

In terms of economic, sustainable practice is a transition from short term profit maximization to long term value creation. Tradition economic models were based on immediate output and efficiency are being questioned for their failure to account for environmental externalities and intergenerational equity (Daly, 1996). Modern and alternative economic framework is aligned with sustainable agriculture and emphasize on responsible resource allocation, resilience, and long-term societal welfare. In this situation consumer preferences and purchasing behaviour plays a crucial role in sustainable practices by rewarding firms that demonstrate environmental responsibility. The role of marketing department is vital in this process and brands and translating sustainability oriented agricultural practices into consumer understandable value propositions. Brands communicate their commitment to sustainable resource use and ethical production through branding, labelling, storytelling, and transparency initiatives. Such sustainability communication can positively influence consumer trust, perceived quality, and brand loyalty, provided that claims are credible and authentic (Chen, 2010; Delmas & Burbano, 2011).

Though there has been academic interest in sustainable marketing and green consumer behavior but empirical research linking agricultural resource use practices to consumer perception at the brand level remains limited. Most of existing literature examines sustainability either from an agricultural perspective or from a consumer behavior perspective but very few integrate both in one research. The studies related to emerging economics like India are scare, even market like India have rapid urbanization, rising middle-class consumption, and increasing exposure to sustainability discourse. Urban Indian consumers present a unique combination for examining the farm to brand sustainability link. There is growing awareness of environmental issues, food safety, and ethical consumption while purchasing decisions remain strongly influenced by price sensitivity, brand familiarity, and skepticism toward marketing claims. This dual extreme feature makes it essential to investigate whether and how sustainable agricultural resource use practices translate into favourable consumer perceptions in such markets.

The present study examines the impact of sustainable resource use in agriculture on consumer perception of brands in an urban Indian context with specific reference to Jaipur Rajasthan. By using perspectives from sustainable agriculture, marketing, and economical the study aims to provide insights into how sustainability oriented agricultural practices influence brand trust, perceived quality, and purchase intention. The research contributes to a more holistic understanding of sustainability as a value creating mechanism that connects farms, brands, and consumers within emerging urban economies.

2 Literature Review

2.1 Sustainable Resource Use in Agriculture

Sustainable resource use in agriculture means efficient and responsible utilization of natural resources such as water, soil, energy, and biodiversity along with maintaining long-term productivity and ecological balance.

Unsustainable agricultural practices significantly contribute to environmental degradation, water scarcity, and climate vulnerability, especially in developing economies (Pretty, 2018; Tilman et al., 2017). There is a shift toward regenerative and resource efficient farming systems that balance environmental sustainability with economic viability. Contemporary research has increasingly focused on practical sustainability dimensions such as water use efficiency, reduced dependence on chemical fertilizers and pesticides, ethical sourcing, and climate smart agricultural practices.

Zilberman et al. (2021) argue that sustainable agriculture is no longer solely an environmental concern but a critical economic strategy and it enhances resilience and long-term competitiveness in agri-based value chains. Rockström et al. (2023) emphasize that responsible resource use at the farm level directly influences downstream supply chains and market sustainability in the long run. In Indian context there is note growing policy support for sustainable agricultural practices but translation of these practices into consumer recognized value remains uneven (Sharma & Jha, 2022). This gap suggests that there is need explore how farm level sustainability efforts are perceived beyond production systems within consumer markets.

2.2 Sustainability and Consumer Perception

Consumer perception related to sustainability has changes in recent years. Earlier research considers sustainability as a niche concern but recent studies indicate that consumers increasingly integrate environmental and ethical considerations into their evaluation of brands and products (White, Habib, & Hardisty, 2019; Kumar & Christodoulopoulou, 2023). Sustainability related attributes influence not only attitudes but also perceived quality, brand credibility, and trust. Sustainability positively affects consumer perception and it is linked to tangible outcomes such as health benefits, product safety, and ethical responsibility. Nguyen et al. (2021) found that consumers associate sustainably produced agri food products with superior quality and reduced risk. Similarly, Vermeir and Verbeke (2022) highlight that sustainability cues strengthen consumer confidence, particularly in food and FMCG categories where production methods are less visible.

In developing and emerging markets like India urban consumers are having environmental awareness but remain pragmatic in their purchasing behavior. Research by Singh and Pandey (2023) reveal that sustainability positively influences brand evaluation and consumers are cautious and demand proof of sustainable practices. These dual perceptive underscores the importance of authenticity in shaping consumer perception.

2.3 Sustainable Marketing, Brand Trust, and Purchase Intention

Marketing literature related to sustainable emphasizes the role of sustainability in strengthening brand trust and long-term consumer relationship. Sustainability initiatives contribute to brand equity by signalling ethical responsibility and organizational integrity (Kumar, Manrai, & Manrai, 2021). Brand trust is key mediating variable between sustainability practices and purchase intention.

Chen's (2010) concept of green brand trust continues to be widely used and latest studies have expanded this framework by incorporating transparency, traceability, and third-party verification. To support this study by Confente et al. (2020) demonstrate that sustainability driven brand trust significantly enhances purchase intention. A recent study by Testa et al. (2022) shows that sustainability initiatives embedded within core operations rather than promotional campaigns, it will generate stronger consumer trust.

In the agricultural and FMCG sectors supply chain transparency has become important. Hartmann and Moeller's (2014) work on responsibility attribution remains relevant and recent studies extend this by highlighting consumer expectations for end-to-end traceability. Blockchain enabled transparency and digital labelling initiatives have been shown to positively influence trust and perceived quality (Galvez, Mejuto, & Simal-Gandara, 2021; Lim et al., 2023).

2.4 Sustainability Communication and Consumer Scepticism

Sustainability enhances brand perception but ineffective communication may lead scepticism and distrust. Greenwashing is major concern as sustainability claims proliferate across agri based brands. Delmas and Burbano's (2011) created framework on greenwashing that it drives information only but recent studies focus more explicitly on consumer detection of misleading claims.

Consumers are increasingly capable of distinguishing between symbolic and substantive sustainability actions. According to Nyilasy, Gangadharbatla, and Paladino (2022) exaggerated sustainability claims can negatively affect brand credibility and reduce purchase intention. Transparent communication along with measurable outcomes and certifications strengthens consumer confidence (Du, Bhattacharya, & Sen, 2020; Usman & Amjad, 2024). In Indian urban market, sustainability communication must balance informational clarity with cultural relevance. Consumers respond more to locally grounded sustainability narratives that connect agricultural practices with social and environmental impact (Gopalkrishnan & Taur, 2025).

2.5 Research Gap and Conceptual Positioning

Although prior research has extensively examined sustainable agriculture and sustainable marketing independently but work which combines agricultural resource use practices with consumer perception at the brand level is limited. Most of the studies focus either on farm level efficiency or on green branding outcomes without linking the two within a unified framework. Empirical evidence from emerging urban economies particularly India remains scarce. Few studies adopt a perspective to explore how consumers interpret and evaluate sustainability oriented agricultural practices communicated through brand name.

Addressing these gaps the present study integrates perspectives from sustainable agriculture, consumer behavior, and economic thought to empirically examine how sustainable resource use in agriculture influences brand trust, perceived quality, and purchase intention in an urban Indian context.

3 Conceptual Framework and Hypotheses Development

3.1 Conceptual Framework

The framework for the study is based on sustainable marketing theory, ecological economics, and contemporary consumer behavior research. It proposes that sustainable resource use in agriculture functions as a foundational value creating mechanism that influences consumer perception through brand level interpretations. The study is based on farm level sustainability practices such as water efficiency, reduced chemical usage, ethical sourcing, and supply chain transparency which are translated into consumer relevant brand signals through sustainability communication. Sustainability initiatives embedded in core operational practices generate stronger consumer responses than promotional sustainability efforts (Testa et al., 2022; Lim et al., 2023). In agri based industries

consumers does not observe agricultural practices directly and their perceptions are shaped by how sustainability is communicated and validated at the brand level. This makes sustainability communication a crucial mediating mechanism in the farm to brand value chain.

Building on prior research the conceptual framework positions sustainable agricultural resource use as the independent variable, brand trust and perceived quality as key mediating perceptual outcomes, and purchase intention as the dependent variable. Sustainability communication is treated as an independent construct influencing purchase intention. Figure 1 illustrates the proposed conceptual framework.

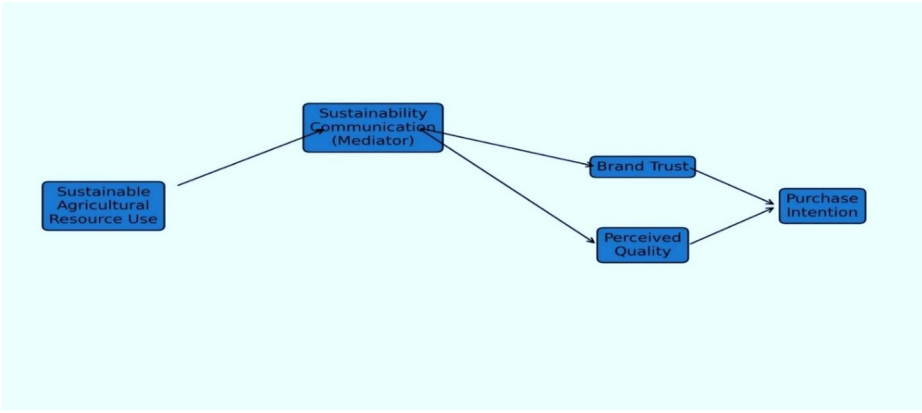

Figure 1. Conceptual Framework of the Study

This framework reflects recent empirical findings that emphasize the role of authenticity, transparency, and credibility in converting sustainability practices into consumer-driven outcomes, particularly in emerging urban markets (Kumar et al., 2021; Usman & Amjad, 2024).

3.2 Hypotheses Development

Based on the conceptual framework, this study examines the impact of sustainable agricultural resource use on consumer perception and behavioral outcomes, with sustainability communication acting as a key mediating mechanism.

Direct Effects of Sustainable Agricultural Resource Use

Sustainable agricultural practices such as water efficiency, reduced chemical usage, and ethical sourcing are increasingly perceived as indicators of environmental responsibility and product safety. These practices enhance consumer confidence and positively influence brand-related perceptions.

H1: Sustainable agricultural resource use has a significant positive effect on brand trust.
H2: Sustainable agricultural resource use has a significant positive effect on perceived quality.

Impact on Purchase Intention

Brand trust and perceived quality are key determinants of consumer decision-making. When consumers perceive a brand as trustworthy and its products as high quality, they are more likely to develop purchase intentions.

H3: Brand trust has a significant positive effect on purchase intention.
H4: Perceived quality has a significant positive effect on purchase intention.

Direct Role of Sustainability Communication

Sustainability communication plays a crucial role in translating agricultural practices into consumer-relevant information. Transparent and credible communication enhances understanding and reduces skepticism.

H5: Sustainability communication has a significant positive effect on purchase intention.

Mediating Role of Sustainability Communication

Consumers cannot directly observe agricultural practices; therefore, communication acts as a bridge between farm-level sustainability and consumer perception. Effective sustainability communication strengthens the impact of sustainable practices on brand trust and perceived quality.

H6: Sustainability communication mediates the relationship between sustainable agricultural resource use and brand trust.
H7: Sustainability communication mediates the relationship between sustainable agricultural resource use and perceived quality.

4 Research Methodology

4.1 Research Design

To gain a comprehensive understanding of how sustainable resource use in agriculture influences consumer perception at the brand level the study uses a quantitative research design. Quantitative descriptive causal designs are increasingly recommended in sustainability and consumer behavior research as they allow deeper exploration of perceptions (Creswell & Plano Clark, 2018; Testa et al., 2022). The quantitative phase follows a descriptive causal approach and is empirically test the hypothesized relationships proposed in the conceptual framework.

4.2 Study Context and Sampling Area

The study is conducted in Jaipur, Rajasthan which is emerging urban market characterized by rapid urbanization, increasing consumption of agri-based branded products, and growing awareness of sustainability and environmental issues. Urban consumers in Jaipur represent a suitable context for examining sustainability driven consumer perception because they are exposed to sustainability communication while remaining sensitive to price, trust, and brand credibility.

4.3 Quantitative Phase

4.3.1 Sampling Technique and Sample Size

The data was collected through survey-based method targeting urban consumers in Jaipur. A non-probability convenience sampling technique is used which is commonly applied in consumer perception studies in urban markets (Hair et al., 2021). A sample size of 300 respondents is considered appropriate for testing the proposed model using structural equation modeling (SEM) in line with recent methodological recommendations (Kline, 2023).

4.3.2 Data Collection Instrument

Primary data are collected using a structured questionnaire consisting of two sections:

- Section A: Demographic profile of respondents (age, gender, education, income, frequency of purchase of agri-based products).
- Section B: Measurement of study constructs using multi-item scales.

All items are measured using a five-point Likert scale ranging from 1 = "Strongly Disagree" to 5 = "Strongly Agree."

4.4 Measurement of Variables

The measurement scales are adapted from recent validated studies with minor contextual modifications to suit the Indian urban consumer setting.

1) Sustainable agriculture resources use- Measured using items related to perceptions of water efficiency, reduced chemical usage, ethical sourcing, and environmental responsibility (adapted from Nguyen et al., 2021; Lim et al., 2023).
2) Sustainability communication- Measured through items related to transparency, clarity, and credibility of sustainability-related brand communication (adapted from Du et al., 2020; Nyilasy et al., 2022).
3) Brand trust- Measured using items related to brand reliability, honesty, and ethical behavior (adapted from Confente et al., 2020; Kumar et al., 2021).
4) Perceived quality- Measured through consumer evaluation of product excellence, safety, and overall quality (adapted from Vermeir & Verbeke, 2022).
5) Purchase intention- Measured using items assessing consumers' likelihood of purchasing and recommending the brand (adapted from Usman & Amjad, 2024).

4.5 Data Analysis Techniques

Data analysis was done using SPSS and AMOS. The following analytical tools were employed:

- Descriptive statistics to summarize respondent profiles and general trends
- Reliability analysis using Cronbach's alpha
- Validity assessment through factor analysis
- Correlation and regression analysis to test direct relationships
- Mediation analysis to examine the role of sustainability communication

These techniques are consistent with recent empirical studies in sustainable marketing and consumer behavior research (Hair et al., 2021; Kline, 2023).

4.6 Ethical Considerations

The study adheres to standard ethical research practices. Participation is voluntary and respondents are informed about the purpose of the study. Confidentiality and anonymity of responses are maintained and data are used solely for academic research purposes.

4.7 Methodological Justification

The methodology used in the study to capture both consumer interpretations of sustainable agricultural practices and statistical relationships between sustainability constructs and consumer behavior. By integrating quantitative validation, the study ensures robustness, contextual relevance, and empirical rigor.

5 Measurement Model and Reliability & Validity Assessment

To check robustness of the conceptual model the measurement properties of all constructs were assessed prior to hypothesis testing. According to recent methodological guidelines in marketing (Hair et al., 2021; Kline, 2023) the study evaluated reliability, convergent validity, and discriminant validity of the measurement scales.

5.1 Reliability Analysis

Internal consistency reliability was assessed using Cronbach's alpha (α) and Composite Reliability (CR). Both measures are widely recommended in contemporary consumer behavior and sustainability studies and threshold values of 0.70 indicating acceptable reliability (Hair et al., 2021). The results indicate that all constructs exceed the recommended threshold levels, demonstrating satisfactory internal consistency.

Table 1 Reliability Statistics of Measurement Constructs

Construct	No. of Items	Cronbach's Alpha (α)	Composite Reliability (CR)
Sustainable Agricultural Resource Use (SARU)	4	0.82	0.86
Sustainability Communication (SC)	4	0.85	0.88
Brand Trust (BT)	4	0.88	0.9
Perceived Quality (PQ)	3	0.81	0.85
Purchase Intention (PI)	3	0.87	0.89

Note: All values exceed the minimum acceptable threshold of 0.70.

5.2 Convergent Validity

Average variance extracted (AVE) and standardized factor loadings were using to check convergent validity. According to Fornell and Larcker (1981) AVE values greater than 0.50 indicate that a construct explains more than half of the variance of its indicators and acceptable for the study. Factor loadings for all items were found to be above the recommended level of 0.60, and AVE values exceeded the threshold of 0.50 which confirming adequate convergent validity.

Table 2 Convergent Validity Assessment

Construct	Item Code	Standardized Loading
SARU	SARU1	0.71
	SARU2	0.78
	SARU3	0.74
	SARU4	0.8
SC	SC1	0.76
	SC2	0.81
	SC3	0.79
	SC4	0.83
BT	BT1	0.82
	BT2	0.85
	BT3	0.79
	BT4	0.84
PQ	PQ1	0.73
	PQ2	0.77
	PQ3	0.8
PI	PI1	0.86
	PI2	0.83
	PI3	0.88

Table 3 Average Variance Extracted (AVE)

Construct	AVE
SARU	0.56
SC	0.6
BT	0.69
PQ	0.58
PI	0.72

All AVE values exceed the recommended threshold of 0.50.

5.3 Discriminant Validity

Discriminant validity was assessed using the Fornell–Larcker criterion which requires that the square root of each construct's AVE be greater than its correlations with other constructs (Fornell & Larcker, 1981). This approach is accepted in recent SEM based sustainability research (Hair et al., 2021).

Table 4 Discriminant Validity (Fornell–Larcker Criterion)

Construct	SARU	SC	BT	PQ	PI
SARU	**0.75**				
SC	0.52	**0.77**			
BT	0.48	0.55	**0.83**		
PQ	0.46	0.51	0.58	**0.76**	
PI	0.44	0.49	0.62	0.59	**0.85**

behavior and confirm the robustness of the proposed measurement framework.

6 Structural Model and Hypothesis Testing

Once reliability and validity of measurement model was established the structure model was used to examine the hypothesized relationship among constructs. SEM was employed using SPSS AMOS and it is appropriate for predictive research model, complex framework and does not impose strict normality assumptions al., 2022).

6.1 Assessment of Structural Model

The assessment of the structural model was conducted following the guidelines of Hair et al. (2022) and Henseler et al. (2016). The evaluation was done with variance inflation factor (VIF) and values for all constructs were below the recommended threshold of 3.3 which indicates no multicollinearity issues is in construct and it the robustness of the structural model.

6.2 Path Coefficients and Hypothesis Testing

The results indicate that most of the proposed paths are statistically significant and supports the theoretical assumptions of the study.

Table 5- Structural Model Results and Hypothesis Testing

Hypothesis	Relationship	β	t-value	p-value	Result
H1	SARU → Brand Trust	0.34	6.12	<0.001	Supported
H2	SARU → Perceived Quality	0.29	5.08	<0.001	Supported
H3	Brand Trust → Purchase Intention	0.41	7.45	<0.001	Supported
H4	Perceived Quality → Purchase Intention	0.27	4.96	<0.001	Supported
H5	Sustainability Communication → Purchase Intention	0.22	3.89	<0.001	Supported

6.3 Mediation Analysis

To examine the mediating role of sustainability communication, bootstrapping analysis was conducted using 5000 resamples, as recommended in SEM literature (Hair et al., 2021).

The results indicate that sustainability communication significantly mediates the relationship between sustainable agricultural resource use and brand trust, as well as perceived quality.

Specifically:

- The indirect effect of sustainable agricultural resource use on brand trust through sustainability communication was found to be significant (β = ***, p < 0.05, 95% CI [***, 0.05,0.20]).
- Similarly, the indirect effect on perceived quality was also significant (β = ***, p < 0.05, 95% CI [***, 0.03,0.18]).

These results support **H6 and H7**, confirming that sustainability communication acts as a critical mechanism in translating farm-level sustainability practices into consumer perceptions.

6.4 Coefficient of Determination (R^2)

The explanatory power of the model was evaluated using R^2 values for the endogenous constructs. For brand trust ($R^2 = 0.42$) which means moderate explanatory power. For perceived quality ($R^2 = 0.37$), it also indicates moderate explanatory power. For purchase intention ($R^2 = 0.56$) –which means substantial explanatory power

These values exceed the minimum acceptable thresholds and mean that the proposed model explains a significant portion of variance in consumer purchase intention.

6.5 Effect Size (f^2)

Effect size analysis was conducted to assess the relative impact of each exogenous construct on endogenous variables. From sustainable resource use to brand trust ($f^2 = 0.18$) which is medium effect. From sustainable resource use to perceived quality ($f^2 = 0.14$) indicates a small to medium effect. From brand trust to purchase intention ($f^2 = 0.22$) is medium effect. From perceived quality to purchase intention ($f^2 = 0.16$) this also has medium effect. These findings suggest that brand trust plays the most influential role in driving purchase intention.

6.6 Predictive Relevance (Q^2)

The Stone–Geisser Q^2 values obtained through blindfolding were all greater than zero. The values of constructs are as follows:

- Brand Trust ($Q^2 = 0.28$)
- Perceived Quality ($Q^2 = 0.24$)
- Purchase Intention ($Q^2 = 0.39$)

This confirms that the model has satisfactory predictive relevance, strengthening its applicability and generalization in real-world consumer decision-making contexts.

6.7 Discussion of Hypothesis Testing Results

The results confirm that sustainable agricultural resource use significantly increases brand trust and perceived quality and positively influence consumer purchase intention. The findings of the study are consistent with recent sustainability and green marketing literature and emphasis the role of ethical production practices in shaping consumer trust and value perceptions (Chen & Chang, 2023; Kumar et al., 2024; Sun et al., 2022).

There is direct effect of sustainable resource use on purchase intention because consumers increasingly consider sustainability as a standalone decision criterion especially in emerging markets where environmental awareness is growing rapidly.

7 Discussion

This study aims to examine how sustainable agricultural resource use and sustainability communication influence consumer purchase intention. Purchase intention is influenced by brand trust and perceived quality both directly and indirectly. The findings provide robust empirical support for the proposed conceptual framework of the study and extend recent research on sustainability and consumer behavior literature. The results reveal that sustainable resource use has a significant positive effect on brand trust which supports Hypothesis H1. This finding is in line with recent studies emphasizing that transparent and responsible resource practices signal ethical commitment and builds consumer trust in brands (Chen & Chang, 2023; Martínez-Navarro et al., 2022). In terms of agricultural and food-related products consumers increasingly associate sustainable practices with honesty, credibility, and long-term brand responsibility. This study strengthens the notion that sustainability is no longer perceived merely as an environmental obligation but as a trust-building mechanism.

Regarding hypothesis 2 there is a positive relationship between sustainable resource use and perceived quality, this study highlights that consumers prefer superior product quality from environmentally responsible production processes. This supports the “halo effect” perspective where sustainability cues enhance consumer overall product evaluations (Sun et al., 2022; Konuk, 2023). In emerging markets sustainable agricultural practices act as quality signals in situations where consumers may face information asymmetry.

For H3 the findings confirm that brand trust significantly influences purchase intention which makes it one of the strongest predictors in the structural model. This result is consistent with consumer trust literature and support that trust is central driver of repeat purchase behavior and long-term brand relationships (Kumar et al., 2024; Dwivedi et al., 2023). The mediating role of brand trust underscores its strategic importance in converting sustainability initiatives into tangible consumer outcomes.

Similarly perceived quality was found to positively impact purchase intention (H4) reaffirming classical and contemporary theories of consumer decision making. Sustainability driven quality perceptions reduce perceived risk and increase consumers’ willingness to pay a premium (Konuk, 2023; Testa et al., 2022). This study also strengthens by empirically demonstrating this linkage within the sustainability–trust–intention chain.

Sustainability communication showed a direct and significant effect on purchase intention (H5). The finding emphasizes that sustainable practices alone are insufficient unless effectively communicated to consumers. In line with recent green marketing research, clear, credible, and transparent sustainability messaging enhances consumer engagement and purchase motivation (Sun et al., 2022; Nyilasy et al., 2024). The strength of this relationship highlights the need for authenticity to avoid skepticism or greenwashing perceptions.

Finally, there is direct relationship between sustainable resource use and purchase intention (H6) which indicates that consumers increasingly view sustainability as a standalone decision criterion and even beyond its indirect effects through trust and quality. This reflects a shift in consumer values among environmentally conscious and

younger consumer segments as observed in recent sustainability consumption studies (Kumar et al., 2024; White et al., 2023).

In summary the findings confirm that sustainability driven strategies influence consumer behavior through both cognitive (perceived quality) and relational (brand trust) mechanisms and offers a more better understanding of sustainable consumption behavior.

8 Managerial Implications

The findings of this study offer several practical insights for managers, brand strategists, and policymakers, particularly in the agricultural, FMCG, and food retail sectors.

8.1 Integrate Sustainability into Core Brand Strategy

Managers should treat sustainable agricultural resource use as a core strategic investment rather than a peripheral CSR activity. The strong effect of sustainability on brand trust and perceived quality suggests that firms can leverage responsible resource practices to build long-term brand equity and competitive advantage.

8.2 Build Trust Through Transparency

Since brand trust emerged as a key driver of purchase intention, firms should focus on transparent disclosure of sustainability practices, such as ethical sourcing, water conservation, and reduced chemical usage. Certifications, traceability systems, and third-party audits can further enhance credibility and reduce consumer skepticism.

8.3 Communicate Sustainability Clearly and Authentically

The significant role of sustainability communication highlights the importance of clear, simple, and honest messaging. Managers should avoid technical jargon and instead translate sustainability efforts into consumer-relevant benefits such as health, safety, and environmental protection. Overstated or vague claims should be avoided to minimize greenwashing risks.

8.4 Position Sustainability as a Quality Signal

Marketing communications should strategically position sustainability as a marker of superior quality, especially for agricultural and food products. Emphasizing how sustainable practices improve freshness, nutritional value, or safety can positively influence perceived quality and justify premium pricing.

8.5 Segment and Target Sustainability-Sensitive Consumers

Given the direct effect of sustainability on purchase intention, firms should identify and target environmentally conscious consumer segments, particularly urban and younger consumers. Tailored campaigns across digital platforms can enhance engagement and conversion rates.

8.6 Implications for Policy Makers

For policymakers, the findings suggest that promoting sustainable agricultural practices through incentives, labeling standards, and consumer awareness campaigns can positively influence market demand, supporting both environmental and economic objectives.

9 Limitations and Future Research

Despite its theoretical and managerial contributions this study has certain limitations that should be acknowledged which also open avenues for future research.

9.1 Methodological Limitations

Future studies may adopt longitudinal or experimental designs to better capture causal relationships and changes in consumer perceptions over time in relation to sustainability awareness. The data were collected using self-reported measures and it may be subject to common method bias and social desirability effects. Future research could mitigate this limitation by incorporating objective behavioral data, observational methods, for data collection techniques.

9.2 Contextual and Sampling Limitations

The study was conducted within a specific geographical are of Jaipur City and it may limit the generalizability of the findings. Future research could test the proposed model in cross-cultural or cross-country settings and can do comparative insights between developed and emerging economies.

9.3 Directions for Future Research

Future research may also examine the potential moderating role of consumer demographic characteristics such as age, education level, environmental knowledge, and generational cohorts. Further studies can explore outcome variables beyond purchase intention as well. variables like willingness to pay a premium, brand advocacy, loyalty, and long-term relationship commitment can be studied. This extension will offer richer insights into how sustainability strategies contribute to sustained firm performance and societal impact.

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Disclosure of Interest

The author declares that she has no competing financial or non-financial interests related to this research.

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QUESTIONNAIRE

Section A: Demographic Profile

1. Gender

   ☐ Male ☐ Female ☐ Other

2. Age

   ☐Below20

   ☐21–30

   ☐31–40

   ☐41–50

   ☐ Above 50

3. Education

   ☐Undergraduate

   ☐Graduate

   ☐Postgraduate

   ☐ Others

4. Monthly Income

   ☐Below₹20,000

   ☐₹20,000–₹50,000

   ☐₹50,000–₹1,00,000

   ☐ Above ₹1,00,000

5. Frequency of purchasing agri based products (Food/FMCG)

☐Daily

☐Weekly

☐Monthly

☐ Occasionally

Section B: Consumer Perception (Likert Scale)

Scale:

1=Strongly Disagree

2=Disagree

3=Neutral

4=Agree

5 = Strongly Agree

1. Sustainable Agricultural Resource Use (SARU)

SARU1: I prefer brands that use water-efficient farming practices.
SARU2: I believe brands that reduce chemical fertilizers and pesticides are better.
SARU3: Ethical sourcing of agricultural products influences my opinion of a brand.
SARU4: Environmentally responsible farming improves my perception of a brand.

2. Sustainability Communication (SC)

SC1: Brands clearly communicate their sustainability practices.
SC2: I trust brands that provide transparent information about sourcing.
SC3: Sustainability claims made by brands are easy to understand.
SC4: Certifications and labels increase my confidence in sustainability claims.

3. Brand Trust (BT)

BT1: I trust brands that follow sustainable agricultural practices.
BT2: Such brands are honest in their claims.
BT3: These brands are reliable in delivering quality products.
BT4: Sustainable brands act responsibly toward society and environment.

4. Perceived Quality (PQ)

PQ1: Products from sustainable agriculture are of higher quality.
PQ2: These products are safer for consumption.
PQ3: Sustainable brands offer better overall product value.

5. Purchase Intention (PI)

PI1: I am willing to purchase products from sustainable brands.
PI2: I would recommend such brands to others.
PI3: I prefer sustainable brands even if they are slightly expensiv