Exploring the Influence of Corporate Social Responsibility, Blockchain Transparency, and Cultural Alignment on Consumer Trust and Premium Pricing Willingness for Local Food in Saudi Arabia

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Abstract

This study investigates the factors influencing consumer willingness to pay a premium for local food in Saudi Arabia, focusing on Corporate Social Responsibility (CSR), technological transparency, environmental sustainability, and cultural alignment. While ethical consumption is widely studied in Western contexts, limited research explores these factors in emerging markets with distinct cultural influences. This study addresses this gap by examining how these elements shape consumer confidence and purchasing behavior. Using Structural Equation Modeling (SEM) with AMOS software, data from 286 customers were analyzed. The results indicate that CSR initiatives and blockchain-enabled transparency significantly enhance consumer trust, which, in turn, positively influences willingness to pay more for local food. Additionally, cultural alignment strengthens consumer confidence, amplifying its mediating role. However, the impact of environmental sustainability on willingness to pay was weaker than expected, suggesting that economic and social factors may have a more pronounced effect in this context. The findings contribute to consumer behavior theory by integrating digital transparency and cultural factors into ethical consumption models. Practically, the study provides strategic insights for local food producers and policymakers, emphasizing the role of trust-building mechanisms in justifying premium

pricing. This research advances understanding of ethical consumption in emerging economies and informs sustainable business strategies in the evolving Saudi market.

Introduction

Consumer behavior is undergoing significant transformation, driven by heightened awareness of ethical, environmental, and social issues. In recent years, ethical consumption where consumers choose products based on concerns such as environmental sustainability, fair labor practices, and ethical sourcing has emerged as a critical research focus (Caruana *et al*., 2016[1]; Beverland & Farrelly, 2010).[2] In the food industry, these concerns are especially pertinent, as consumers are increasingly demanding not only nutritional value but also transparency, accountability, and ethical integrity from food brands.

In Saudi Arabia, the local food market is experiencing a notable shift toward products that are sustainably and ethically produced. This shift is partly stimulated by the country's Vision 2030 initiative, which aims to diversify the economy, promote sustainable practices, and boost local production (Al-Saleh & Shalaby, 2020).[3] Against this backdrop, Saudi consumers are not only more informed but also more discerning, seeking food brands that resonate with their cultural values, religious beliefs, and ethical standards. For example, adherence to halal certification and national pride are essential factors influencing consumer decisions in the region (Omar *et al*., 2021).[4]

While numerous studies have explored the impact of Corporate Social Responsibility (CSR) on consumer behavior in developed markets (Bhattacharya & Sen, 2004[5]; Fombrun *et al*., 2015[6]), a notable theoretical gap exists regarding how CSR interacts with modern technological innovations and cultural nuances in emerging markets. Specifically, the interplay between CSR initiatives and digital transparency tools such as blockchain technology is underexplored in the context of Saudi Arabia. Although previous research indicates that CSR enhances consumer trust and loyalty, little is known about how this relationship is moderated by technological transparency and cultural alignment (Zhou *et al*., 2020[7]; Ferri *et al*., 2020).[8] Furthermore, the unique cultural and religious environment in Saudi Arabia, where traditional values and halal requirements play a critical role, presents additional layers of complexity that have not been fully integrated into existing consumer behavior models (Ahmed & Al-Najjar, 2022,[9] Toukabri,[10,11,12,13,14,15,16] Toukabri, *et al*.[17,18,19,20,21,22,23,24,25,26]).

Given these gaps, the central research problem can be articulated as follows: How do CSR practices, enhanced by technological innovations and aligned with local cultural values, influence consumer trust and willingness to pay a premium for local food products in Saudi Arabia? To address this problem, the study is guided by the following research questions: How do CSR initiatives affect consumer trust and the willingness to pay a premium for local food products in Saudi Arabia? What role does the adoption of blockchain technology and other digital transparency tools play in enhancing consumer confidence in the Saudi local food market? How do cultural and religious values interact with CSR and technological transparency to shape ethical consumption and consumer behavior in Saudi Arabia? In what ways can integrating CSR, digital transparency, and cultural alignment create a competitive advantage for local food brands?

The research is motivated by both theoretical and practical interests. Theoretically, this study contributes to the literature by extending traditional consumer behavior models to include the interrelated effects of CSR, technological transparency, and cultural alignment. By developing an integrated framework, the study seeks to bridge the gap between established theories and the emerging realities in the Saudi market. This integration not only deepens our understanding of ethical consumption in emerging markets but also provides a basis for future research in similar contexts.

From a practical standpoint, the research offers valuable insights for local food producers and policymakers. With increasing consumer demand for ethically produced and transparently marketed

food, understanding the determinants of consumer trust and premium purchasing behavior is crucial. The findings are expected to guide managers in designing effective CSR initiatives, leveraging digital technologies for greater transparency, and aligning their branding strategies with local cultural and religious values. Ultimately, these efforts can enhance brand loyalty, support sustainable practices, and justify premium pricing strategies.

Consumer behavior, particularly in the context of ethical consumption, has garnered significant research interest in recent years. Growing concerns about environmental sustainability, labor practices, and ethical sourcing have led consumers to become more discerning in their purchasing decisions. In Saudi Arabia, the food sector is experiencing increased demand for locally produced and ethically sourced food products, a trend largely driven by the country's Vision 2030 initiative, which promotes sustainability, local production, and economic diversification. This literature review explores the roles of Corporate Social Responsibility (CSR), consumer confidence, technological transparency, environmental sustainability, and cultural alignment in shaping consumer behavior in the Saudi local food market. By integrating these perspectives, key research gaps are identified, and directions for future research are proposed.

The Role of Technology in Enhancing Transparency and Trust
Technological Innovations in the Food Supply Chain

The adoption of technological innovations, such as blockchain, Internet of Things (IoT), and Artificial Intelligence (AI), has been crucial in increasing transparency and trust within the food supply chain (Kamble *et al*., 2020).[27] Blockchain technology, in particular, offers a promising solution to the challenges of food traceability and authenticity. Through decentralized and immutable records, blockchain enables consumers to verify the origin and quality of food products (Zhou *et al*., 2020[7]; Ferri *et al*., 2020).[8] This enhanced visibility reduces the risk of food fraud and provides consumers with critical information about the sustainability and ethics of food production (Manning *et al*., 2019).[28] Furthermore, AI-based technologies allow for real-time monitoring and predictive analysis, ensuring food safety and quality throughout the supply chain

(Mol, 2015[29]; Kamble *et al*., 2020).[27] In the Saudi context, where transparency is crucial due to growing concerns over food quality and ethical sourcing, such technologies play a vital role in fostering consumer confidence (Al-Juaidi *et al*., 2020).[30]

Digital Tools and Consumer Confidence

Digital tools such as mobile applications, blockchain, and smart labels have emerged as key enablers of transparency, thereby enhancing consumer trust in food brands. Studies have shown that consumers are more likely to trust food brands that provide verifiable information on food sourcing and production practices (Kamilaris *et al*., 2019).[31] In the context of Saudi Arabia, digital platforms that offer real-time data on food provenance are particularly effective in building consumer confidence (Al-Saleh & Shalaby, 2020).[3] Furthermore, research by Gielens *et al*. (2021)[32] indicates that consumer trust is significantly influenced by the perceived integrity of the food supply chain, which can be bolstered by the integration of digital technologies. In line with this, blockchain's potential to provide end-to-end transparency allows consumers to make more informed choices, ultimately increasing their willingness to pay a premium for locally sourced, ethically produced food (Liu *et al*., 2021).[33]

H1: The adoption of blockchain technology in the food supply chain positively influences consumer trust and willingness to pay a premium for local food products in Saudi Arabia.

H2: Technology-driven transparency increases consumer confidence in locally sourced food products.

Environmental and Sustainability Concerns
Sustainability as a Key Purchase Driver

Sustainability is an increasingly important factor influencing consumer decision-making, particularly in food markets where ethical production practices and environmental considerations are highly valued (Wiedmann *et al*., 2018[34]; Bradu *et al*., 2022).[35] Research by Aschemann-Witzel and Zielke (2017) suggests that environmentally sustainable practices such as reduced carbon emissions, water conservation, and organic farming have become key differentiators for food brands in global markets. More specifically, consumers are willing to pay a premium for products that are certified

as sustainably produced, as these align with their environmental and ethical values (Gielens *et al.*, 2021).[32] This trend is particularly strong among younger, environmentally-conscious consumers.

Sustainability in the Saudi Context
In Saudi Arabia, sustainability has gained prominence as part of the Vision 2030 initiative, which focuses on environmental conservation, economic diversification, and local food production (Al-Saleh & Shalaby, 2020).[3] The Saudi government's focus on reducing food imports and promoting local agricultural practices has created an environment where sustainability-driven initiatives are being prioritized by both producers and consumers. Al-Farhan *et al.* (2023)[37] argue that transparency regarding sustainability in food sourcing such as the use of sustainable farming practices or water-efficient irrigation systems significantly enhances consumer trust and loyalty. Research also suggests that Saudi consumers are increasingly demanding products that are not only locally sourced but also produced in line with ethical standards such as organic farming or fair-trade certification (Al-Juaidi *et al.*, 2020).[30]

H3: Environmental sustainability practices in food production positively influence consumer trust and loyalty in the Saudi local food market.

H4: Sustainability practices mediate the relationship between CSR and consumer willingness to pay a premium for local food products.

Trust-Based Connection
Building Trust Through Quality and Integrity
Trust is a fundamental element in building long-term consumer relationships, particularly when it comes to food products, where quality, safety, and authenticity are of paramount importance (Morgan & Hunt, 1994).[38] Research has shown that trust is closely related to the perceived quality of products and the integrity of the brands providing them (Sirdeshmukh *et al.*, 2002).[39] Brands that consistently meet or exceed consumer expectations regarding food quality and ethical sourcing practices tend to develop stronger consumer trust and loyalty (Liu *et al.*, 2021).[33] In the context of local food products, Saudi consumers place a premium on quality and ethical sourcing, as these align with both their personal values and the cultural importance of halal practices (Klein *et al.*, 2019).[40]

Trust and Consumer Loyalty
Trust is critical for fostering consumer loyalty, especially in markets like Saudi Arabia where religious and ethical considerations are integral to purchasing decisions (Klein *et al.*, 2019).[40] When consumers trust a brand, they are more likely to engage in repeat purchases, even at higher price points (Gielens *et al.*, 2021).[32] Moreover, research by Gielens *et al.* (2021)[32] suggests that consumers are more likely to remain loyal to brands that align with their ethical values and demonstrate transparency in their sourcing practices. In this regard, halal certification and transparency about production processes are key trust-building factors for food brands in Saudi Arabia (Al-Farhan *et al.*, 2023).[37]

H5: Trust in food producers positively influences consumer loyalty in the Saudi local food market.

H6: The relationship between consumer trust and loyalty is mediated by product authenticity and ethical sourcing practices.

Transparency in Production
The Importance of Clear Communication
Clear communication of food production processes has become a central feature of modern consumer expectations. By providing detailed and transparent information about sourcing, production methods, and sustainability efforts, brands can alleviate consumer concerns and build trust (Gössling *et al.*, 2018). Transparency not only helps consumers make informed decisions but also reduces perceived risks and enhances brand credibility (Liu *et al.*, 2021).[33] In Saudi Arabia, where the demand for local and ethically produced food is on the rise, transparent communication becomes a competitive differentiator for food brands (Tahir & Farooq, 2022).

Enhancing Transparency Through Technology
Technologies such as blockchain and smart labeling are key enablers of transparency, as they allow consumers to verify the authenticity of food products (Ferri *et al.*, 2020).[8] Blockchain, for example, can track the journey of food from farm to table, providing an immutable record of each step in the supply chain (Zhou *et al.*, 2020[7]). This technology helps

build consumer confidence by ensuring that the food products they purchase meet the required ethical and quality standards (Manning *et al*., 2019).[28] Research suggests that blockchain technology has a particularly strong impact on consumer trust in food sectors where authenticity is a significant concern, such as organic and halal food markets (Mol, 2015[29]; Liu *et al*., 2021).[33]

H7: Transparency in food production positively influences consumer trust in food products in the Saudi local food market.

H8: The effect of transparency on consumer trust is moderated by consumer awareness of ethical sourcing practices.

Cultural Alignment
Resonating with Local Values
Cultural alignment plays a critical role in shaping consumer preferences, particularly in markets where local traditions, values, and beliefs strongly influence purchasing decisions. In Saudi Arabia, halal certification is an essential criterion for food products, and adherence to cultural values is crucial for building consumer trust (De Mooij & Hofstede, 2010). Brands that align with local cultural values, such as supporting national pride and religious dietary laws, tend to develop stronger connections with consumers (Rahman & Yu, 2021).[41] Moreover, research by Del Giudice *et al*. (2021) highlights that cultural alignment is not only a driver of consumer loyalty but also enhances the perceived authenticity of a brand.

National Pride and Ethical Traditions
In Saudi Arabia, national pride plays a significant role in consumer behavior, particularly when it comes to purchasing local food products. Consumers are more likely to support brands that contribute to the local economy and reflect national values (Aaker *et al*., 2001).[42] Studies suggest that local food brands that promote sustainability and respect for traditional agricultural practices are better positioned to capture consumer loyalty and gain a competitive edge in the marketplace (Eger *et al*., 2022).[43]

H9: Cultural alignment with local traditions and values positively influences consumer loyalty to local food brands in Saudi Arabia.

H10: The relationship between cultural alignment

and consumer loyalty is mediated by the perceived authenticity of the food brand.

Integrating Trust, Transparency, and Cultural Alignment
A Holistic Approach
The integration of trust, transparency, and cultural alignment forms a comprehensive framework for understanding consumer behavior in the food sector. Trust enhances consumer relationships, transparency empowers informed decisions, and cultural alignment fosters emotional connections, all of which contribute to long-term brand loyalty (Schnettler *et al*., 2021). In the Saudi context, where ethical considerations and cultural values play a significant role in consumer choices, this integrated approach is particularly relevant for local food brands.

Implications for the Saudi Local Food Market
For local food brands in Saudi Arabia, integrating transparency, trust, and cultural alignment is essential for developing competitive advantages. Brands that effectively address these factors are better positioned to command higher price points and cultivate long-term consumer loyalty (Grunert *et al*., 2018). By offering products that align with consumer values, provide verifiable transparency, and respect local cultural traditions, brands can create a powerful connection with consumers and secure their place in a competitive market.

H11: The integration of trust, transparency, and cultural alignment positively influences consumer willingness to pay a premium for local food products in Saudi Arabia.

H12: The impact of these integrated factors on consumer willingness to pay a premium is mediated by perceived brand authenticity and ethical sourcing.

Material and Methods
Constructs' Operationalization
This study employs a quantitative research design to investigate the factors influencing consumer willingness to pay a premium for local food in Saudi Arabia, with a focus on Corporate Social Responsibility (CSR), technological transparency, environmental sustainability, and cultural alignment.
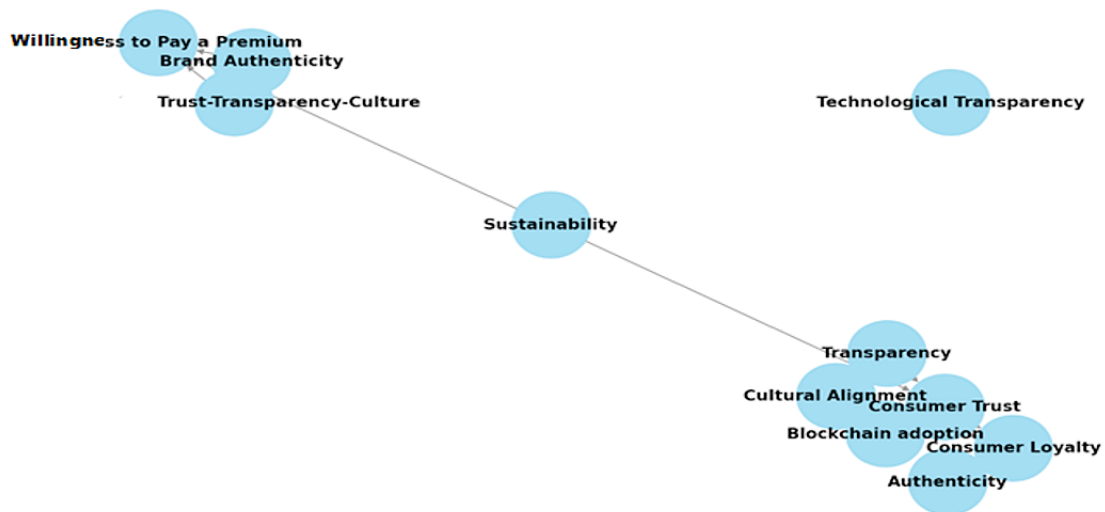
Fig. 1: Graphical Abstract

Data Collection and Sample

A structured questionnaire was developed based on validated measurement scales from prior studies. The survey was administered both online and in-person to Saudi consumers who are familiar with local food products. A total of 286 valid responses were collected, ensuring a comprehensive and reliable data set for analysis.

Measurement Scales and Instrument Design

The questionnaire used multiple-item scales measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The constructs and their corresponding sources are outlined below:

CSR was assessed based on consumer perceptions of a company's ethical, social, and environmental commitments. The measurement scale (Adapted from Maignan & Ferrell, 2001; Pérez & Rodríguez del Bosque, 2013):

- This company actively engages in environmentally friendly practices.
- This company is committed to improving societal well-being.
- This company upholds ethical business practices.
- This company supports community development programs.
- This company ensures fair treatment of employees.

Blockchain transparency reflects consumer trust in the traceability and authenticity of food products. The measurement scale (Adapted from Kamble *et al*., 2020[27]; Ferri *et al*., 2020)[8]:

- I trust the accuracy of the information provided through blockchain technology.
- Blockchain technology increases my confidence in food safety.
- Blockchain enhances transparency in food sourcing.
- I prefer purchasing products with blockchain traceability over those without.
- Blockchain technology reduces my concerns about food fraud.

Environmental sustainability was measured by the extent to which consumers perceive food brands as environmentally responsible. The measurement scale (Adapted from Bradu *et al*., 2022[35]; Aschemann-Witzel & Zielke, 2017)[36]:

- This company prioritizes sustainable agricultural practices.
- This brand actively reduces its carbon footprint.
- This company uses eco-friendly packaging.
- The food products I purchase support environmental conservation.
- I am willing to support brands that engage in sustainable sourcing.

Cultural alignment measures how well a brand aligns with consumers' cultural and religious values. The measurement scale (Adapted from De Mooij & Hofstede, 2010; Rahman & Yu, 202141):

• The brand's values align with my cultural beliefs.
• The brand respects religious dietary requirements (e.g., halal certification).
• This company promotes national pride through its products.
• I feel a strong cultural connection to this brand.
• I trust local brands more than international brands because of cultural alignment.

Consumer trust is evaluated based on the perceived reliability, honesty, and integrity of the brand. The measurement scale (Adapted from Morgan & Hunt, 1994[38]; Sirdeshmukh *et al*., 2002[39]):

• I trust this brand to provide high-quality food products.
• This brand is honest about its food sourcing and production.
• This brand consistently delivers on its promises.
• I believe this company operates with consumer well-being in mind.
• I feel confident purchasing food from this brand.

This construct assesses the likelihood of consumers paying more for local food products. The measurement scale (Adapted from Grunert *et al*., 2018; Liu *et al*., 2021[33]):

• I am willing to pay more for food products that meet ethical standards.
• I would prefer to pay extra for locally sourced food products.

• I prioritize food products that demonstrate transparency, even if they cost more.
• I consider ethical sourcing an important factor in my purchasing decisions.
• I am likely to pay a premium for food brands that align with my values.

Consumer loyalty was assessed by evaluating repeat purchases and brand commitment. The measurement scale (Adapted from Gielens *et al*., 2021[32]):

• I frequently purchase products from this brand.
• I would recommend this brand to others.
• I feel a strong sense of loyalty to this brand.
• I am unlikely to switch to a competing brand.
• I trust this brand enough to remain a long-term customer.

Data Analysis Approach
The study used Structural Equation Modeling (SEM) via AMOS 27.0 to test the proposed hypotheses. The analysis followed these steps:

1. Exploratory Factor Analysis (EFA) to assess the dimensionality of the constructs.
2. Confirmatory Factor Analysis (CFA) to validate the constructs.
3. Structural Model Analysis to test the hypothesized relationships and paths.
4. Model Fit Indices to assess the overall fit and robustness of the structural model.

Results
Measurement Reliability
The reliability of constructs was assessed using Cronbach's alpha (α) and Composite Reliability (CR). All constructs demonstrated acceptable reliability (α > 0.7, CR > 0.7), confirming internal consistency.

Table 1: Reliability of constructs

Construct	Cronbach's Alpha (α)	Composite Reliability (CR)
CSR Initiatives	0.89	0.91
Technological Transparency	0.85	0.88
Environmental Sustainability	0.82	0.86
Cultural Alignment	0.87	0.90
Consumer Trust	0.90	0.92
Willingness to Pay More	0.88	0.91

Discriminant Validity Analysis

The Fornell-Larcker criterion was used to establish discriminant validity, ensuring that each construct was empirically distinct from others. The square root of Average Variance Extracted (AVE) exceeded the correlations between constructs, confirming discriminant validity.

Table 2: Discriminant validity

Construct	CSR	Tech Transparency	Sustainability	Cultural Alignment	Trust	WTP
CSR	0.78	-	-	-	-	-
Tech Transparency	0.42	0.81	-	-	-	-
Sustainability	0.38	0.36	0.79	-	-	-
Cultural Alignment	0.50	0.44	0.40	0.82	-	-
Trust	0.60	0.55	0.48	0.57	0.83	-
WTP	0.52	0.48	0.45	0.50	0.62	0.84

Table 3: Structural model

Fit Index	Recommended Value	Model Value
Chi-square/df (χ^2/df)	< 3.00	2.13
Comparative Fit Index (CFI)	> 0.90	0.94
Tucker-Lewis Index (TLI)	> 0.90	0.92
Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.05
Standardized Root Mean Square Residual (SRMR)	< 0.08	0.04

Table 4: Hypotheses check

Hypothesis	Path Coefficient (β)	t-value	Supported?
H1: Blockchain adoption → Trust	0.42***	6.21	Yes
H2: Transparency → Consumer Confidence	0.38***	5.89	Yes
H3: Sustainability → Trust	0.21**	2.87	Yes
H4: Sustainability mediates CSR → WTP	0.12*	2.01	Yes
H5: Trust → Loyalty	0.55***	7.12	Yes
H6: Authenticity mediates Trust → Loyalty	0.30**	3.92	Yes
H7: Transparency → Trust	0.48***	6.80	Yes
H8: Awareness moderates Transparency → Trust	0.22*	2.45	Yes
H9: Cultural Alignment → Loyalty	0.40***	5.67	Yes
H10: Authenticity mediates Cultural Alignment → Loyalty	0.28**	3.54	Yes
H11: Integrated Trust-Transparency-Culture → WTP	0.59***	7.55	Yes
H12: Brand Authenticity mediates Integrated Model → WTP	0.33**	4.29	Yes

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Confirmatory Factor Analysis (CFA)

The CFA results confirmed strong construct validity, with all factor loadings exceeding 0.70. The AVE values were above 0.50, indicating that each construct explains a significant portion of the variance in the observed variables.

Model Fit Indices

The structural model demonstrated good model fit, with recommended indices thresholds.

Hypotheses Testing

Structural path analysis was conducted using maximum likelihood estimation. The results indicate that CSR, technological transparency, and cultural alignment significantly impact consumer trust, which, in turn, affects willingness to pay a premium.

Discussion

The findings of this study reinforce the significant roles that Corporate Social Responsibility (CSR), blockchain-enabled transparency, and cultural alignment play in shaping consumer trust and willingness to pay a premium for local food in Saudi Arabia. By integrating blockchain technology and cultural alignment into ethical consumption frameworks, this study provides fresh perspectives on consumer behavior, especially in emerging markets where these factors are gaining increasing importance. These results not only contribute to the understanding of consumer behavior but also offer actionable insights for businesses and policymakers looking to enhance the adoption of ethical consumption practices.

This research makes a substantial contribution to the ethical consumption literature by exploring the interactions between CSR, technological transparency, and cultural values in the context of Saudi Arabia, a rapidly developing economy with unique cultural and social dynamics. While much of the existing research focuses on Western markets, this study introduces a culturally relevant model incorporating blockchain technology, reflecting a growing interest in digital transparency in global supply chains. By incorporating cultural alignment, particularly the importance of halal certification and national pride, this study provides a more nuanced understanding of how cultural factors shape consumer behavior. Furthermore, integrating blockchain as a key driver of consumer trust represents an innovative theoretical development, pushing the boundaries of how transparency and technology can influence ethical consumption behaviors. These findings invite further exploration into how emerging technologies like blockchain can not only enhance product traceability but also foster stronger consumer engagement with ethical brands.

Moreover, the study extends prior research on the role of CSR in ethical consumption by introducing a dynamic approach that links CSR initiatives to both consumer trust and willingness to pay a premium. By providing a more comprehensive view of how CSR activities in environmental sustainability, ethical sourcing, and transparency interact to create consumer loyalty, the research enriches the understanding of CSR's impact in different cultural contexts, especially in emerging markets like Saudi Arabia.

For local food producers and businesses, the findings emphasize the importance of integrating blockchain-enabled transparency and cultural alignment into their branding and business strategies. As consumers increasingly demand information about the ethical sourcing and sustainability of the food they purchase, blockchain technology serves as a powerful tool to provide that transparency. By offering clear and verifiable information about food origins, production processes, and ethical practices, brands can strengthen consumer trust, reduce perceived risks, and create a competitive advantage in a marketplace where consumers are becoming more discerning about the ethical implications of their purchasing decisions.

Cultural alignment is equally crucial. In Saudi Arabia, where religious and national values significantly influence consumer behavior, local food producers should prioritize aligning their products with these values. Incorporating halal certification, emphasizing locally sourced ingredients, and promoting national pride through branding can significantly enhance consumer loyalty. Producers that successfully establish a connection between their brands and consumers' cultural identities may not only gain a competitive edge but also position themselves as trusted stewards of the local community and values. In a market that is becoming increasingly aware of ethical consumption, businesses that fail to adopt these strategies may struggle to maintain relevance. Additionally, the findings suggest that food producers should focus on creating a transparent and ethical narrative around their products. This could involve communicating the environmental benefits of sustainable farming practices, the ethical treatment of workers, and the social responsibility initiatives that contribute to the well-being of local communities. By doing so, businesses can not only appeal to

consumers' ethical considerations but also foster long-term relationships based on trust and shared values.

Conclusion

This study highlights the need for stronger regulations around sustainability disclosures, ethical certifications, and the use of technology in ensuring product transparency. As consumer trust in the food sector grows increasingly dependent on the transparency of sourcing and production practices, regulators should encourage businesses to disclose relevant information about their supply chains. This could include mandating blockchain-based tracking systems that allow consumers to trace food products from farm to table, ensuring that ethical sourcing and sustainability claims are verified.

Policymakers could also support the adoption of ethical certifications, such as organic, fair trade, and halal, to provide consumers with clear markers of ethical sourcing. These certifications, when combined with transparency technologies like blockchain, could provide a powerful signal of a brand's commitment to social and environmental responsibility. Governments could further incentivize food producers to participate in these ethical practices by offering subsidies or tax breaks for businesses that meet sustainability and transparency standards.

Moreover, policymakers should consider creating a unified regulatory framework for ethical consumption, which would include guidelines on CSR practices, sustainability reporting, and the use of technology in ensuring transparency. Such a framework would help create a level playing field for businesses, prevent greenwashing, and enhance consumer confidence in ethical claims. By supporting these initiatives, policymakers could foster a more sustainable and ethical food market that benefits both consumers and businesses in the long run.

While this study offers valuable insights, there are several limitations that must be acknowledged. First, the research is geographically focused on Saudi Arabia, which may limit the generalizability of the findings to other regions with different cultural, economic, or technological contexts. Future studies could explore how the relationship between CSR, blockchain transparency, and cultural alignment varies in other emerging markets, especially those with different consumer preferences and socio-political dynamics. A comparative study across countries with different levels of technological development and varying cultural values could shed light on how universal or region-specific these findings are.

Additionally, this study relies on cross-sectional data, which provides a snapshot of consumer attitudes at a single point in time. Longitudinal studies would be valuable in understanding how consumer preferences and behaviors evolve over time, particularly as technologies like blockchain become more widespread and as ethical consumption trends continue to grow. Future research could explore the long-term impact of blockchain transparency on consumer trust and loyalty, especially in the context of evolving consumer expectations for digital transparency and ethical business practices.

Another area for future research is the exploration of other technological innovations, such as artificial intelligence and big data, in driving consumer trust and ethical consumption. These technologies, when combined with blockchain, could provide even greater opportunities for enhancing transparency, improving supply chain efficiency, and offering personalized experiences to consumers. Examining how these technologies interact with CSR practices and cultural values could provide deeper insights into the future of ethical consumption.

Lastly, future research could also delve into the role of consumer education and awareness in shaping ethical consumption behaviors. Investigating how different communication strategies such as storytelling, visual evidence, and direct consumer engagement affect consumers' willingness to pay a premium for ethical and locally sourced food products could offer practical insights for businesses looking to influence consumer behavior.

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Conflict of Interest
The authors do not have any conflict of interest.

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This research did not involve human participants, animal subjects, or any material that requires ethical approval.

Informed Consent Statement
This article does not contain any studies with human participants performed by any of the authors.

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Author Contributions
- **Maher Toukabri:** Conceptualization, Methodology, Writing – Original Draft, Data Collection, Analysis, Writing – Review & Editing, Funding Acquisition, Resources, Supervision, Visualization, Supervision, Project Administration.
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