

The Influence of Procedure Practices on Perceived Sustainable Consumer Behaviour in Tanzania: A Practice-Based Perspective in Selected Supermarkets in Dar es Salaam

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Abstract

This study examines the influence of procedure practices on perceived sustainable consumer behaviour (SCB) in the rapidly expanding formal retail sector of Dar es Salaam, Tanzania. Moving away from traditional individualistic psychological frameworks that struggle to bridge the consumer attitude-behaviour gap, this research applies social practice theory to shift analytical attention toward the structural and institutional dimensions of consumption. Procedure practices were operationalised through three dimensions: instructions, guidelines, and regulations. Using an explanatory cross-sectional survey design, primary data were collected from a final sample of 298 supermarket staff members drawn from 72 systematically sampled medium-to-large supermarkets, with up to 5 staff members selected from each supermarket. Data were screened for outliers and missing values and analysed using SPSS Version 28, employing descriptive statistics, Pearson correlation, and multiple linear regression. The regression model showed a strong fit, with procedural practices collectively explaining 83.1% of the variance in staff-perceived sustainable consumer behaviour. At the dimensional level, regulation-based practices ($\beta = 0.205$, $p < 0.001$) and guideline-based practices ($\beta = 0.174$, $p = 0.001$) demonstrated a significant positive association with perceived sustainable consumer behaviour. In contrast, instruction-based practices did not show a significant association ($\beta = -0.004$, $p = 0.937$). These findings indicate that, from the perspective of supermarket staff, sustainable consumer behaviour is more strongly associated with formal rules and operational expectations than with instructional communication alone. The study suggests that supermarket managers should prioritise structural and regulatory approaches over passive promotional media, and that policymakers should consider strengthening standardised retail sustainability regulations.

Keywords: Practice Theory, Procedure Practices, Retail Sustainability, Perceived Sustainable Consumer Behaviour, Supermarket Staff

1. Introduction

The growing demand to promote sustainable consumer behaviour in response to increasing global environmental challenges has triggered extensive debate about the most effective approaches to encouraging behavioural change (Lammi, 2026; Lema-Blanco & García-García, 2023). Historically,

dominant strategies have centred on psychological and individualistic models, most notably the Theory of Planned Behaviour and the Value-Belief-Norm Theory, which privilege internal factors such as attitudes, intentions, values, and beliefs (Ajzen, 1991; Stern, 2000; Gurova, 2024; Trudel, 2019). These approaches primarily rely on informational and motivational tools to raise awareness, operating under the assumption that individual enlightenment drives behavioural change (Korzilius, 2020; Southerton et al., 2026).

However, these frameworks have faced substantial scholarly criticism for their limited capacity to generate enduring behavioural change and for their overly individualistic conceptualisation of transformation (Slabbinck, 2021; Wegener & Jensen, 2026). A prominent manifestation of this limitation is the persistent misalignment between consumers' stated pro-environmental attitudes and their actual purchasing actions, a phenomenon widely characterised as the attitude-behaviour gap (Cavalcante-Costa et al., 2024; Gonzalez-Arcos et al., 2021). Global data highlight this friction, revealing that while 65% of consumers express a desire to buy sustainably, only 26% translate that intention into action (Munro et al., 2023). This gap is exacerbated by structural obstacles, including inconvenience, limited understanding of environmental impacts, issues of trust, product availability, and product placement or visibility (Borasino & Fuhrmann, 2022; Borges-Tiago et al., 2024; Traore et al., 2023).

To overcome these individualistic limitations, practice theory has emerged as a significant alternative lens in the social sciences, shifting the unit of analysis from individual attitudes to social practice itself (Southerton et al., 2026; Welch, 2019; Shove et al., 2012). Within this framework, behaviours are conceptualised as routinised, socially constituted performances embedded in everyday life rather than as the aggregate of isolated rational choices (Gonzalez-Arcos et al., 2021; Sattlegger, 2021). Consumers are viewed as carriers of practice whose actions are shaped by internal demands and external systems of provision (Welch, 2019; Shove et al., 2012).

Drawing on the foundational work of Warde (2005), practices are understood to comprise three interrelated elements: engagements, understandings, and procedures (Welch, 2019; Southerton & Warde, 2023). Transitioning toward sustainability therefore requires a fundamental reconfiguration of these components, redirecting analytical attention from individual responsibility to the structures that enable and normalise consumption patterns (Spurling et al., 2013; Evans, 2020; Shove & Trentmann, 2025).

The demand for integrating a practice-based approach into empirical research is highlighted by mounting global and regional crises, with unsustainable consumption and production patterns causing approximately 40% of environmental pollution and affecting over 85% of the global population (Berri & Toma, 2023; Abiola et al., 2023). The African continent presents particularly serious challenges driven by rapid population growth, urbanisation, and the expansion of the formal retail sector, which together exacerbate waste management crises (Abiola et al., 2023; Nandonde & Stanton, 2022). Empirical findings indicate that 69% of urban consumers in Africa have had direct negative experiences with pollution from food and packaging waste, and that major African economies are among the top contributors to ocean plastic pollution (Traore et al., 2023; Abiola et al., 2023). Similarly, in East Africa, 56% of urban consumers confront significant visible issues with packaging waste, signalling the failure of conventional, fragmented interventions (Amani, 2024).

Within this landscape, the supermarket has emerged as a principal intermediary and gatekeeper capable of molding consumer routines, a responsibility implicitly aligned with international mandates such as the United Nations Sustainable Development Goal 12 on Responsible Consumption and Production (Lema-Blanco & García, 2023; Berri & Toma, 2023; Nandonde & Stanton, 2022). Nevertheless, supermarkets still rely heavily on individualistic nudges such as informational posters or eco-labelling, which fail to

alter the structural, interpretive, and normative dimensions of everyday shopping routines (Sattlegger, 2021; Wegener & Jensen, 2026; Southerton & Warde, 2023).

Despite the theoretical promise of practice theory, significant gaps in the literature persist. Empirical applications remain concentrated within domestic settings, focusing on household energy, water, and waste management, leaving the commercial retail environment largely understudied (Warde et al., 2023; Southerton & Warde, 2023). Furthermore, the elements of engagement, understanding, and procedures remain broad and abstract, lacking operationalised metrics within marketing contexts (Corsini et al., 2019; Pink & Fors, 2025). Methodologically, the field is dominated by qualitative approaches that offer rich data but lack statistical generalisability (Warde et al., 2023; Winkler et al., 2023).

These limitations are particularly acute in Tanzania, where rapidly urbanising centres such as Dar es Salaam face severe solid waste crises exacerbated by an expanding formal retail sector (Mushi, 2025; Rusobya et al., 2024). Because practices are context-dependent, configurations from the Global North cannot be directly transposed to Tanzania's unique infrastructural, economic, and cultural landscape, which is defined by specific household constraints and the coexistence of formal and informal retail systems (Amani, 2024; Mushi & Njau, 2024; Rusobya et al., 2024).

This study addresses these interconnected gaps by employing a quantitative methodology to investigate how procedure practices can be deployed by supermarkets to foster perceived sustainable consumer behaviour. The study uses supermarket staff as the unit of analysis because staff are directly involved in enacting and observing the procedural practices that structure the retail environment. Staff are therefore well positioned to report on how these practices are associated with consumer behaviour.

Moreover, this study focuses on procedure practices as they represent the structural and institutional mechanisms through which supermarkets organise everyday consumption. In practice theory, procedures are understood as the formal and informal rules, guidelines, instructions, and material arrangements that shape how practices are performed (Warde, 2005; Schatzki, 1996). Within the supermarket environment, procedures govern product placement, waste disposal, packaging standards, labelling, and staff conduct. These are not neutral operational details; they actively structure what consumers see, how they navigate the store, and which choices are made easier or more difficult.

For this reason, procedures are central to sustainability. Sustainable consumption is unlikely to become routine if the retail environment does not support it through clear rules and structural cues. Supermarkets that embed sustainability into their procedures can make sustainable options more visible, accessible, and expected. This shifts the focus from changing individual attitudes to reconfiguring the environment in which consumption takes place. In this study, procedure practices are therefore examined as a key practice element that may be strongly associated with perceived sustainable consumer behaviour, as reported by supermarket staff who enact and observe these practices daily.

To guide this investigation, the study hypothesises that procedure practices are positively associated with perceived sustainable consumer behaviour. By testing this relationship, the research extends Warde's (2005) framework into the retail domain and establishes a robust empirical foundation for structural sustainability interventions.

2. Methodology

This study employed an explanatory cross-sectional survey design to examine the relationship between procedure practices and perceived sustainable consumer behaviour at a single point in time. This design was appropriate because the study sought to test associations rather than to observe changes over time.

Moreover, cross-sectional surveys are widely used in retail and sustainability research to capture relationships at one point (Hair et al., 2019). The research was conducted in the urban area of Dar es Salaam, Tanzania, a suitable setting for the nation's fastest-growing retail market and the corresponding packaging and food waste challenges (Rusobya et al., 2024; Amani, 2024).

The unit of analysis was the individual supermarket staff member, selected because of their operational familiarity with institutional routines and customer trends. Staff are directly involved in the daily enactment and observation of supermarket practices, which makes them credible informants on the behaviours they observe within the retail environment (Bryman & Bell, 2015; Winkler et al., 2023). A sample frame of 145 registered supermarkets was established based on municipal registries, the Tanzania Revenue Authority, and commercial directories. Strict inclusion criteria required supermarkets to be medium-sized or larger, self-service-oriented, and to provide diverse food and household lines. These criteria ensured that the selected supermarkets were comparable in size and operation and that staff had sufficient exposure to consumer routines.

A two-stage sampling design was used to select respondents. This approach was chosen because supermarket staff were not listed in a single accessible frame. Two-stage sampling is recommended when the population is dispersed across organisational units, and no complete individual-level list exists (Cochran, 1977; Lohr, 2021). In the first stage, systematic random sampling was used to draw a sample of 72 supermarkets from the institutional frame. This represented approximately sampling proportion of the total population, which is appropriate in small finite populations where a high sampling fraction reduces sampling error and improves representativeness (Cochran, 1977).

In the second stage, up to five staff members with at least six months of tenure were randomly selected from each supermarket. This small number per organisation was chosen to spread the sample across many retail settings and to avoid over-representation of a single supermarket (Bryman & Bell, 2015). This process yielded an initial target sample of 360 respondents. Following data cleaning and the removal of incomplete responses and statistical outliers, the final analytic sample comprised 298 supermarket staff, representing an effective response rate of 82.8%, which is considered excellent for survey research (Creswell & Creswell, 2005).

Data collection utilised a standardised questionnaire adapted from validated scales and improved through a pilot test with a purposive sample of 15 supermarket staff. The pilot test was important for checking clarity, relevance, and cultural appropriateness of the items before full data collection (Hill, 1998; Isaac & Michael, 1995). The instrument used five-point Likert-type items ranging from 1 (very unlikely) to 5 (very likely), a format commonly used to measure perceptions and behavioural likelihood (Hair et al., 2019). The questionnaire was administered via a two-mode strategy combining physical drop-and-collect methods with online Google Forms to minimise non-response bias and accommodate varying levels of digital competence. Mixed-mode administration is supported as a practical way to improve coverage and accessibility across different respondent groups (Bryman & Bell, 2015).

Data processing involved rigorous screening for completeness and consistency. Random cross-checking of 10% of the entries against hard copies verified data entry integrity. Frequency distributions revealed missing data points in 15 cases, representing 4.9% of the returned surveys. Little's Missing Completely at Random test yielded a non-significant chi-square value ($p > 0.05$), confirming the absence of systematic bias and justifying the use of mean imputation. Because missingness was below the conventional 5% threshold, mean imputation was considered appropriate to preserve statistical power without distorting variable distributions (Hair et al., 2019). Univariate outliers were identified using standardised Z-scores,

resulting in the removal of two cases that exceeded the absolute threshold of 3.29. Multivariate outliers were evaluated using Mahalanobis distance, which identified one additional case exceeding the critical chi-square threshold. These procedures reduced the preliminary sample from 301 to a final analytic sample of 298 cases.

The cleaned data were analysed using IBM SPSS Version 28. Descriptive statistics, Pearson correlations, and multiple linear regression were employed to address the research objectives.

3. Results

3.1 Descriptive Results for Procedure Practices dimensions

This section focuses on the three dimensions of procedures: instructions, guidelines, and regulations. It presents a descriptive analysis of instructions, guidelines, and regulations, and their influence on perceived sustainable consumer behaviour in supermarkets in Dar es Salaam.

Instruction-based practices as indicated in Table 1, recorded an aggregated mean of 3.36 (SD = 1.38). Among the instruction items, staff rated clear product labelling highest (M = 3.45, SD = 1.37), followed by shelf placement arrangements (M = 3.42, SD = 1.32). These higher ratings suggest that staff perceived clear labelling and organised shelf placement as the instructional practices most likely to support consumers in making sustainable choices. It also indicates that the staff perceived clear labels can help consumers quickly understand product attributes, while strategic shelf placement makes sustainable products easier to locate and consider. Both practices perceived to reduce the effort consumers must exert to identify sustainable options within a busy retail environment.

Packaging prescriptions (M = 3.28, SD = 1.40) and feedback systems (M = 3.29, SD = 1.44) received the lowest ratings. The lower rating for packaging prescriptions indicates that staff perceived written sustainability claims on packaging may not always be sufficient to build consumer trust. Consumers may be uncertain about the credibility of packaging claims, especially when these claims are not supported by clear labels or in-store guidance. The low-rating for-feedback systems suggests that staff perceived limited consumer engagement with formal feedback mechanisms. This may indicate that such systems are not sufficiently visible or accessible to consumers during their routine shopping. Overall, these results indicate that staff viewed instructional practices as moderately effective, with direct, point-of-purchase information being more useful than indirect or administrative communication.

Table 1: Instruction-Based Procedure Practices

Instruction Practice	Mean	SD
Observing shelf placement requirements enables easy access and product choice	3.419	1.316
Clear labelling guides consumers to make informed purchase decisions	3.446	1.365
Packaging prescriptions enhance trust in sustainability claims	3.282	1.403
Feedback mechanisms improve sustainability initiatives between consumers and supermarkets	3.292	1.435
Aggregated Mean and Standard Deviation	3.360	1.380

Guideline-based practices as indicated in Table 2, recorded an aggregate mean of 3.38 (SD = 1.34). Staff environmental consciousness (M = 3.42, SD = 1.34) and clear in-store waste reduction directives (M = 3.41, SD = 1.35) were rated highest. These findings indicate that staff perceived their own visible commitment to sustainability and clear in-store guidance on waste reduction as the guideline practices most strongly associated with consumer behaviour. When staff model environmental consciousness and communicate clear expectations, consumers may be more likely to view sustainability as a normal and

accepted part of the shopping environment. This suggests that the social and operational cues provided by staff are more influential than formal restrictions.

Plastic bag restrictions ($M = 3.35$, $SD = 1.30$) and sustainable sourcing practices ($M = 3.35$, $SD = 1.37$) received moderate ratings. While these practices were viewed positively, staff perceived them as less directly associated with consumer behaviour. Restricting plastic bags may encourage some consumers to bring reusable bags, but this behaviour change was seen as less consistent. Sustainable sourcing practices, although important at the operational level, may not be immediately visible to consumers during their shopping experience. Therefore, staff perceived that guideline practices which are visible, immediate, and directly connected to consumer interaction may be more strongly associated with sustainable consumer behaviour.

Table 2: Guideline-Based Procedural Practices

Guideline Practice	Mean	SD
Observing sustainable sourcing conduct enhances consumer loyalty	3.346	1.365
Clear in-store commands on waste reduction increase consumer satisfaction	3.409	1.354
Restrictions on plastic bags encourage the use of refillable bags	3.349	1.297
Environmental consciousness among staff influences consumer decision-making	3.416	1.336
Aggregated Mean and Standard Deviation	3.380	1.338

Regulation-based practices as indicated in Table 3 recorded an aggregate mean of 3.40 ($SD = 1.35$). Labelling compliance received the highest rating ($M = 3.48$, $SD = 1.36$), followed by eco-friendly packaging standards ($M = 3.41$, $SD = 1.40$). These results indicate that staff perceived formal compliance with labelling and packaging regulations as highly important for consumer confidence. When products carry consistent, standards-based labels and are presented in environmentally responsible packaging, consumers are better able to trust sustainability claims and make informed choices. Staff perceived these regulatory practices as strong structural cues that can support consumer decision-making.

Staff compliance with product standards ($M = 3.38$, $SD = 1.29$) and reusable bag standards ($M = 3.32$, $SD = 1.37$) received moderate ratings. While staff viewed these practices as important, they were perceived as less visible to consumers than labelling and packaging. Reusable bag standards, in particular, may depend heavily on consumer willingness and habit, which staff believed may be inconsistent. Overall, the results suggest that staff perceived formal regulatory compliance, especially in labelling and packaging, as a critical structural mechanism that may supports consumer confidence and sustainable purchasing within the retail environment.

Table 3: Regulation-Based Procedure Practices

Regulation/Rule Practice	Mean	SD
Adherence to eco-friendly packaging standards enhances packaging quality	3.413	1.395
Attention to reusable bag standards improves choices and acceptability	3.315	1.369
Staff compliance with environmentally friendly product standards enhances the shopping experience	3.379	1.290
Labelling compliance boosts consumer confidence in product claims	3.480	1.361
Aggregated Mean and Standard Deviation	3.397	1.354

Conclusively, the three procedural dimensions were perceived by supermarket staff as important but distinct contributors to sustainable purchasing behaviour within the retail environment. Instruction-based practices, particularly clear labelling and shelf placement, were seen as helpful for making sustainable products easier to identify and access. However, these practices were viewed as limited when applied in isolation. Guideline-based practices, especially visible staff environmental consciousness and clear waste reduction directives, were perceived as more influential because they create social expectations and model sustainability as a normal part of the shopping experience. Regulation-based practices, particularly labelling compliance and eco-friendly packaging standards, were seen as the strongest structural cues, providing the trust and consistency consumers need to make confident sustainable choices.

Taken together, the results indicate that staff perceived sustainable purchasing behaviour as being most strongly supported when the retail environment combines clear instructions, visible staff commitment, and firm formal regulations. These findings suggest that sustainable behaviour is not driven by any single practice alone but by the combined effect of multiple procedural dimensions working together. For supermarket managers and policymakers, this implies that promoting sustainable consumption requires more than awareness or isolated instructions. It requires a deliberate and integrated structuring of the retail environment so that sustainable options are visible, socially reinforced, and institutionally supported.

3.2 Correlation Results

Pearson's correlation coefficient (r) was computed to assess the linear associations among the procedure practice dimensions and perceived sustainable consumer behaviour. Table 4 presents the Pearson correlation matrix for perceived sustainable consumer behaviour and the procedure practice dimensions: instructions, guidelines, and regulations. The findings revealed positive and statistically significant correlations at the 0.01 level (two-tailed) for all associations, confirming strong linear relationships between the procedure practices and perceived sustainable consumer behaviour.

Relationships with Perceived Sustainable Consumer Behaviour

The findings indicate that perceived sustainable consumer behaviour was strongly and positively correlated with all three procedure practices: guidelines ($r = 0.822$, $p < 0.01$), regulations ($r = 0.819$, $p < .01$), and instructions ($r = 0.771$, $p < 0.01$). Among the three-procedure practice, guidelines demonstrated the strongest association with perceived sustainable consumer behaviour ($r = 0.822$, $p < 0.01$). This indicates that staff perceived clear guidelines concerning waste reduction, sustainable sourcing conduct, restrictions on plastic bags, and the cultivation of environmental consciousness among staff may play a significant role in shaping consumer sustainability actions within the supermarket environment.

Perceived sustainable consumer behaviour was also strongly correlated with regulations ($r = 0.819$, $p < 0.01$). This suggests that staff perceived adherence to labelling standards, staff compliance with operational guidelines, and packaging regulations may enhance consumer confidence and trust, thereby positively influencing sustainable consumer behaviour. Although instruction-based practices were strongly correlated with perceived sustainable consumer behaviour ($r = 0.771$, $p < 0.01$), this association was comparatively weaker than those observed for guidelines and regulations. This suggests that staff perceived instruction-based practices may be less influential when implemented in isolation, without the complementary support of guidelines and regulations. Pearson correlation analysis revealed significant

positive linear relationships among the procedural dimensions and perceived sustainable consumer behaviour. Furthermore, perceived sustainable consumer behaviour correlated strongly with guidelines ($r = 0.822$, $p < .01$), regulations ($r = 0.819$, $p < 0.01$), and instructions ($r = 0.771$, $p < 0.01$). These results indicate that, from the perspective of supermarket staff, all three procedural dimensions were meaningfully associated with the likelihood of consumers engaging in sustainable behaviour. Among the three dimensions, guidelines and regulations showed the strongest associations with perceived sustainable consumer behaviour, while instructions had a comparatively lower but still significant association

Interrelationships among the Procedure Practices

Strong intercorrelations were observed among the procedure practices, with coefficients ranging from $r = .753$ to $r = .818$. The strongest intercorrelation was observed between guidelines and regulations ($r = .818$, $p < .01$). This suggests that staff perceived clear communication of sustainability guidelines is closely associated with the enforcement of formal regulatory mechanisms within the supermarket context. Furthermore, instructions were strongly correlated with both guidelines ($r = .781$) and regulations ($r = .753$). These intercorrelations confirm that the procedural dimensions function as an integrated system, rather than as isolated practices. These high intercorrelations indicate that staff perceived the three procedure practices not as isolated practices but as an integrated and mutually reinforcing system. In other words, supermarkets that maintain clear guidelines and strong regulations also tend to provide coherent instructions, and together these practices form a consistent structural environment that staff associate with sustainable consumer behaviour

Collectively, the correlational findings indicate that procedural practice elements may play a significant role in shaping sustainable consumer behaviour. Furthermore, the strong intercorrelations among the procedure practices indicate that staff perceived that consumers are more likely to engage in sustainable purchasing behaviour when they are supported by a coherent system of clear instructions, guidelines, and regulations. Moreover, the findings suggest that staff perceived that the combined presence of clear instructions, guidelines, and regulatory compliance may establish shared expectations and provide practical support for sustainable consumer behaviour within the supermarket environment.

Table 4: Pearson Correlation Matrix – Procedure Practices and Perceived SCB

Variable	SCB	Instructions	Guidelines	Regulations/Rules
SCB	1	.771	.822	.819
Instructions	.771	1	.781	.753
Guidelines	.822	.781	1	.818
Regulations/Rules	.819	.753	.818	1

Note: Correlation is significant at the 0.01 level (2-tailed), $N = 298$

3.3 Descriptive Results for Perceived SCB

Perceived sustainable consumer behaviour, as the dependent variable in this study, was assessed across three core dimensions: quality of life, care for the environment, and care for future generations. The descriptive results for perceived sustainable consumer behaviour as presented in Table 5 revealed a moderate overall assessment across all three dimensions. The quality-of-life dimension recorded the

highest aggregate mean of 3.41 (SD = 1.35). Within this dimension, staff perceived that consumers were most likely to avoid food and plastic waste ($M = 3.49$, $SD = 1.31$) and to purchase sustainable alternatives for basic needs ($M = 3.47$, $SD = 1.35$). In contrast, behaviours involving consumer advocacy, such as advising friends and family about sustainability ($M = 3.35$, $SD = 1.38$), and cognitive reflection on the environmental consequences of purchases ($M = 3.32$, $SD = 1.35$), received lower ratings. This suggests that staff believed consumers were more inclined to act sustainably when the behaviour was practical and directly related to their own daily needs, rather than when it required outward advocacy or deep reflection.

Table 5: Quality of Life Indicators in perceived SCB

Indicator	Mean	SD
Likelihood of purchasing sustainable products to fulfil basic needs	3.466	1.351
Likelihood of avoiding contribution to food and plastic waste	3.493	1.306
Likelihood of advising friends and family about sustainability	3.352	1.383
Likelihood of thinking about the environmental consequences of purchases	3.319	1.352
Aggregated Mean and Standard Deviation	3.408	1.348

The environmental care dimension as indicated in Table 6 recorded a moderate mean of 3.33 (SD = 1.37). Staff perceived that consumers were most likely to make purchasing decisions based on information they had acquired ($M = 3.44$, $SD = 1.40$). However, behaviours such as reusing shopping bags ($M = 3.25$, $SD = 1.31$) and supporting environmental awareness activities ($M = 3.25$, $SD = 1.38$) received the lowest ratings. This indicates that staff saw consumers as more responsive to information-based decision-making at the point of purchase than to habitual or advocacy-oriented environmental actions.

Table 6: Indicators of Environmental Care in perceived SCB

Indicator	Mean	SD
Likelihood of consumers reusing their shopping bags	3.248	1.313
The likelihood of consumers making purchase decisions based on acquired information	3.443	1.399
Likelihood of consumers supporting environmental awareness activities	3.248	1.380
Likelihood of consumers using sustainable products	3.362	1.367
Aggregated Mean and Standard Deviation	3.325	1.365

The care for future generations dimension, as presented in Table 7, recorded a mean of 3.36 (SD = 1.39). Staff perceived that consumers were most likely to participate in sustainability initiatives for future generations ($M = 3.40$, $SD = 1.43$). Explicit intergenerational concern received the lowest rating ($M = 3.32$, $SD = 1.38$), suggesting that although staff observed some consumer engagement with sustainability

initiatives, this did not always reflect a deeply held or consistently expressed concern for future generations.

Table 7: Indicators of Consumer Care for the Future Generation in perceived SCB

Indicator	Mean	SD
The likelihood of remembering that unsustainable products hinder future generations	3.366	1.345
Likelihood of being more concerned about future generations	3.319	1.381
Likelihood of minimising unsustainable behaviour for future generations	3.369	1.390
Likelihood of participating in sustainability initiatives for future generations	3.396	1.432
Aggregated Mean and Standard Deviation	3.363	1.387

Taken together, these findings indicate that supermarket staff perceived sustainable consumer behaviour as moderate and uneven across different dimensions. Staff observed that consumers were more likely to engage in simple, practical, and immediately relevant sustainable behaviours, such as reducing waste and using information to guide product choices. Behaviours requiring personal advocacy, habitual change, or long-term reflection were perceived as less common. In the retail environment, therefore, staff perceived sustainable consumer behaviour as strongly dependent on immediate situational cues and practical convenience rather than on deep environmental concern or sustained personal commitment.

3.4 Pearson Correlation for Perceived SCB Dimension

The Pearson correlation results presented in Table 8 show that the three dimensions of perceived sustainable consumer behaviour were strongly and positively interrelated. Quality of life was significantly correlated with care for the environment ($r = 0.739$, $p < 0.001$) and care for future generations ($r = 0.765$, $p < 0.001$). Care for the environment was also significantly correlated with care for future generations ($r = 0.744$, $p < 0.001$). These strong positive correlations indicate that, from the perspective of supermarket staff, the three dimensions of sustainable consumer behaviour do not operate in isolation. Staff perceived that consumers who were likely to engage in one form of sustainable behaviour were also likely to demonstrate other sustainable behaviours.

Each of the three dimensions also showed a very strong correlation with the overall sustainable consumer behaviour construct. Quality of life recorded a correlation of $r = 0.914$, care for the environment recorded $r = 0.907$, and care for future generations recorded $r = 0.917$, all significant at $p < 0.001$. These high coefficients indicate that each dimension contributed substantially to the overall measure of perceived sustainable consumer behaviour.

Taken together, these results suggest that staff perceived sustainable consumer behaviour as a coherent and interconnected pattern of actions within the retail environment. Consumers who were seen as likely to avoid waste and purchase sustainable products were also perceived as likely to care for the environment and to consider future generations. From the viewpoint of supermarket staff, therefore, sustainable consumer behaviour is not a fragmented or isolated set of actions. It appears as a unified behavioural orientation in which practical quality-of-life choices, environmental concern, and intergenerational

responsibility reinforce one another. This consistency suggests that when supermarkets support one dimension of sustainable behaviour through their practices, they may also be supporting the broader pattern of sustainable consumption as observed and reported by staff.

Table 8: Pearson Correlation for SCB Dimension

	Quality of life	Care for the future	Care for the environment	SCB
Quality of life	1	0.765**	0.739**	0.914**
Care for the future	0.765**	1	0.744**	0.917**
Care for the environment	0.739**	0.744**	1	0.907**
SCB	0.914**	0.917**	0.907**	1

** . Correlation is significant at the 0.01 level (2-tailed), N = 298

3.5 Regression Results

Before interpreting the regression results, the assumptions of multiple linear regression were examined as indicated in Table 9. Linearity was established through significant positive Pearson correlations and scatterplot inspection. Multicollinearity was assessed using Variance Inflation Factor values, which ranged from 3.421 to 3.912 and were below the conservative threshold of 5.0, while tolerance values were above 0.10. Homoscedasticity was confirmed through visual inspection of the standardised residual plot and a non-significant Breusch–Pagan test ($\chi^2 = 1.83$, $p = 0.176$). Normality of residuals was supported by a non-significant normality test ($p = 0.988$) and a histogram that approximated a normal distribution. Independence of errors was verified by a Durbin–Watson value of 1.565, which fell within the acceptable range of 1.5 to 2.5. These results indicated that the data met the assumptions required for multiple regression

Table 9: Diagnostic Tests for Multiple Linear Regression Assumptions

Regression Assumption	Diagnostic Indicator	Observed Value	Criterion Benchmark /	Assessment
Linearity	Pearson correlation (IVs vs DV)	$r = .507 - .904$	$p < .001$; Significant positive correlation	Satisfied
Multicollinearity	Variance Inflation Factor (VIF)	3.794 – 4.672	$\{VIF\} < 5.0$ (Conservative)	Satisfied
Homoscedasticity	Scatterplot (ZRESID vs ZPRED) Breusch–Pagan test	Random, cloud-like dispersion $\chi^2(1) = 1.83, p = .176$	No funnel shape $p > .05$	Satisfied
Normality	Significance of Residuals (p)	.988	$p > .05$ (non-significant)	Satisfied
Independence	Durbin–Watson Statistic	1.565	1.5- 2.5 {DW}	Satisfied
Univariate outliers	Standardised Z-scores	2 cases (Case 045, Case 189) exceeded ± 3.29	Absolute Z-score < 3.29	Satisfied
Multivariate outliers	Mahalanobis distance (D^2)	1 case (Case 224) exceeded 29.5	$D^2 < 29.59$ (df = 10, $\alpha = .001$)	Satisfied

Multiple linear regression results confirmed a strong overall model fit ($R = 0.911$). The coefficient of determination indicated that the procedure practices collectively explained 83.1% of the variance in perceived sustainable consumer behaviour ($R^2 = 0.831$, Adjusted $R^2 = 0.825$, $SE = .412$). The overall model was highly significant, $F(10, 287) = 140.95, p < 0.001$, indicating that the three procedure practices together were strongly associated with the likelihood of consumers engaging in sustainable purchasing behaviour as observed by supermarket staff.

At the dimensional level, as indicated in Table 10, the results showed clear differences among the three procedure practices. Instructions were not a significant predictor of perceived sustainable consumer behaviour ($\beta = 0.004, p = 0.937$). This means that instructional practices such as shelf labels and informational cues, although visible and commonly used within the retail environment, did not retain a unique statistical association with sustainable behaviour once guidelines and regulations were accounted for. From the perspective of staff, simply telling consumers what to do through signage or product information was not sufficient to shape routine sustainable purchasing.

Guidelines were a significant positive predictor ($\beta = 0.174, p = 0.001$). This indicates that staff perceived clear operational expectations, such as in-store waste reduction directives and visible staff environmental consciousness, as meaningfully associated with sustainable consumer behaviour. In the retail environment,

guidelines help establish what is considered expected. They create a social and operational context within which consumers are more likely to act sustainably as part of their regular shopping routine.

Regulations were the strongest significant positive predictor ($\beta = 0.205$, $p < 0.001$). This finding suggests that staff perceived formal regulatory mechanisms, including labelling compliance and packaging standards, as the procedural practice most strongly associated with sustainable purchasing behaviour. Regulations provide consistency, trust, and structure. When consumers encounter products that meet recognised standards and are presented within a regulated retail environment, sustainable choices become easier to identify and more likely to be repeated.

Taken together, these results indicate that sustainable purchasing behaviour in the retail environment is most strongly associated with formal rules and clear operational expectations. Instructional communication alone does not appear to influence routine sustainable behaviour. From the perspective of supermarket staff, the structural and regulatory environment is more important than informational prompts. This suggests that to support sustainable consumer routines, supermarkets should prioritise the development of clear guidelines and enforceable regulations, rather than relying on instructions and awareness messages.

Table 10: Multiple Regression Results at Dimensions Level

Predictor	Beta (β)	t	sig	VIF	Tolerance
Instruction	0.004	0.079	0.937	4.212	0.237
Guidelines	0.174	3.433	0.001	4.352	0.230
Regulations	0.205	4.168	0.000	4.114	0.243

4.1 Discussion and Interpretation of the Results

The primary objective of this study was to examine the association between procedure practices and staff-perceived sustainable consumer behaviour. The findings indicate that procedures practices constitute the operational domain most strongly associated with perceived sustainable consumer behaviour in Dar es Salaam, yielding a strong correlation ($r = 0.881$) and the highest standardised regression weight ($\beta = 0.407$, $p < 0.001$).

This provides clear empirical support for Warde's (2005) proposition that social practices are organised primarily through institutional rules and material architectures rather than relying solely on individual willpower or intention. The findings also contribute to the scholarly dialogue by demonstrating that perceived sustainable consumption is heavily dependent on retail configurations and structural systems of provision (Winkler et al., 2023; Schatzki, 1996; Shove et al., 2012).

At the dimensional level, instruction-based practices were perceived by staff as helpful but did not emerge as a significant independent predictor ($\beta = -0.004$, $p = 0.937$). This suggests that informational mechanisms lose their unique association when deeper institutional guidelines and formal regulatory rules are taken into account. This is consistent with Warde (2005) and Schatzki (1996), who argue that informational cues are effective only when supported by structural frameworks.

Guideline-based practices were a significant predictor ($\beta = 0.174$, $p = 0.001$). This confirms that internal operational codes and staff environmental awareness are important for establishing institutional expectations and structuring consumer choice architecture (Barbosa et al., 2023; Naidoo & Gasparatos, 2023). Staff act as intermediaries, translating organisational policy into consumer practices (Winkler et al 2023).

Regulation-based practices were the strongest significant predictor ($\beta = 0.205$, $p < 0.001$), driven by labelling compliance and packaging standards. This underscores that material arrangements and operational mandates define the boundaries within which everyday consumption occurs (Schatzki, 1996; Abiola et al., 2023; Amani, 2024). Behaviours governed by formal rules are perceived as socially expected rather than optional.

The strong model fit offers a compelling narrative regarding the attitude-behaviour gap. The study indicates that behavioural discrepancies are primarily structural rather than individual. Staff perceive sustainable consumer behaviour as a performance co-constituted by the retail environment. When supermarkets structure their displays, policies, and operational rules to support sustainability, they build situational competencies that reinforce habitual pro-environmental behaviours (Reckwitz, 2002; Spaargaren, 2003; Bissmont, 2020).

The findings of this study both align with and diverge from previous research in important ways. Consistent with Warde (2005) and Schatzki (1996), the results confirm that procedures practices are strongly associated with sustainable consumer behaviour because rules and material arrangements structure the performance of everyday practices. This also supports Winkler et al. (2023), who found that supermarket interventions embedded in operational routines were more strongly linked to behaviour than informational approaches. Similarly, Abiola et al. (2023) and Amani (2024) highlight the importance of regulatory and packaging standards, which corresponds with the present finding that regulation-based practices had the strongest association with perceived sustainable consumer behaviour.

However, the study differs from research that emphasises the role of instructions and informational cues. Rusobya et al. (2024) and Lema-Blanco & García-García (2023) suggest that labels and in-store communication are important tools for guiding consumers. In contrast, the present study found that instructions did not significantly predict perceived sustainable consumer behaviour when guidelines and regulations were included in the model. This indicates that, from the perspective of supermarket staff, instructions alone are insufficient unless they are supported by deeper structural rules.

Furthermore, the study differs from individualistic models such as the Theory of Planned Behaviour, which treat consumer choice as a product of attitudes and intentions. The findings show that staff perceptions of sustainable consumer behaviour are more strongly associated with institutional procedures than with individual motivation alone. This positions the study within the practice-theoretical tradition while also extending it into the Tanzanian supermarket context, where structural and regulatory mechanisms appear to be especially relevant.

4.2 Implications of the Results

The findings of this study carry several implications for understanding sustainable consumer behaviour within the supermarket context. First, they suggest that sustainable behaviour, as reported by supermarket staff, is more strongly associated with structural and regulatory mechanisms than with instructional communication. This indicates that efforts to promote sustainability in retail should look beyond awareness and information provision. Instead, attention should be directed toward the formal rules, operational guidelines, and material arrangements that structure the shopping environment.

Second, the significant associations observed for guidelines and regulations imply that supermarket staff perceive formal expectations and enforceable standards as important conditions for sustainable behaviour. Regulations provide consistency and trust, while guidelines establish what is considered normal and

acceptable within the store. These findings align with Warde's (2005) argument that practices are organised through rules and meanings rather than through individual motivation alone.

Third, the non-significant result for instructions suggests that simply providing information or placing labels may not be sufficient to influence behaviour when broader structural conditions are absent. From the perspective of staff, instructions are useful but secondary to deeper institutional practices. This has important implications for how supermarkets design their customer communication. Informational tools should support, but not replace, clear rules and visible staff commitment.

Fourth, the study implies that the attitude-behaviour gap observed in consumer research may partly reflect a structural gap. When the retail environment does not support sustainable choices through rules and expectations, consumers may find it difficult to translate their intentions into action. The findings therefore shift part of the responsibility for sustainable consumption from the individual consumer to the institutional environment.

4.3 Practical Application of the Study

Practically, the study suggests that supermarket managers should prioritise the development of clear operational guidelines and enforceable regulations. This includes investing in consistent labelling compliance, eco-friendly packaging standards, and clear in-store waste reduction directives. These practices were perceived by staff as more strongly associated with sustainable consumer behaviour than instructional tools such as shelf labels or informational posters.

Staff training should also be strengthened. The significant role of guidelines indicates that staff environmental consciousness is an important element of the retail environment. Staff should be supported to model sustainable behaviour and to communicate expectations clearly to consumers. This can help establish sustainability as a normal part of the shopping routine.

Supermarkets should also integrate sustainability into their physical layout and operational rules. Eye-level placement of sustainable products, visible recycling stations, and standardised packaging can reduce the effort consumers must make to identify and choose sustainable options. These structural changes may support the development of sustainable routines.

For policymakers, the findings suggest that voluntary supermarket initiatives may not be enough. Mandatory, standardised regulations on labelling, packaging, and waste management could provide the consistent structure needed to support sustainable behaviour across the retail sector. Policy could also encourage supermarkets to invest in staff training and store redesign through incentives or certification programmes.

4.4 Limitations of the Study

This study has several limitations that should be considered when interpreting the findings. First, the study relied on supermarket staff as the unit of analysis. The dependent variable is therefore perceived sustainable consumer behaviour, not actual consumer behaviour. Staff perceptions may differ from what consumers actually do, and this limits the direct measurement of behaviour.

Second, the study used a cross-sectional design. Data were collected at a single point in time, which means the findings reflect associations rather than causal relationships. It is not possible to determine whether procedure practices lead to sustainable behaviour or whether other factors are involved.

Third, both the independent and dependent variables were measured using the same questionnaire and from the same respondents. This creates the possibility of common method variance, which may inflate

the observed relationships. The high R^2 value of 83.1% should therefore be interpreted with caution. It may reflect shared method variance and the fact that staff reported on both practices and behaviour within a consistent institutional perspective. Therefore, the model's explanatory power may be overstated relative to studies using independent measures of consumer behaviour.

Fourth, the study was conducted in urban Dar es Salaam. The findings may not apply to other regions in Tanzania or to different retail contexts, especially where supermarket density is lower and informal retail is more common.

Fifth, the study focused only on procedure practices. Other practice elements, such as engagement and understanding, were not included. Sustainable consumer behaviour is likely shaped by multiple elements together, and the absence of these other dimensions limits the completeness of the model.

4.5 Suggestions for Future Research

Future research should address these limitations in several ways. First, studies should combine staff perceptions with consumer self-reports or observational data. This would provide a more complete picture of whether staff perceptions match actual consumer behaviour.

Second, future research should adopt longitudinal designs to examine how procedural practices and sustainable behaviour change over time. This would allow stronger conclusions about causality and the development of sustainable routines.

Third, the measurement model should be tested in other geographical contexts, including rural areas and other East African countries. This would help establish whether the findings are generalisable beyond Dar es Salaam.

Fourth, future studies should include all three practice elements engagement, understanding, and procedures in a single model. This would show how the elements interact and which combinations are most strongly associated with sustainable behaviour.

Fifth, research could examine the effect of specific procedural interventions, such as new labelling systems or staff training programmes, using experimental or quasi-experimental designs. This would provide more direct evidence on which practices are most effective.

Sixth, future studies should apply statistical remedies for common method variance, such as separating the measurement of predictors and outcomes or using marker variables.

Finally, research could explore how procedure practices influence different consumer segments, products, and shopping contexts. This would help tailor sustainability strategies to specific retail environments and consumer needs.

5. Conclusion

This study concludes that sustainable consumer behaviour may not simply be a matter of individual choice but is deeply embedded in the procedural structures of the supermarket. Procedures, particularly regulations and guidelines, are the mechanisms through which sustainability may become visible, expected, and actionable. When supermarkets design their rules, layouts, and operational standards to support sustainability, they can create environments in which sustainable behaviour is more likely to occur as part of everyday routine. The findings challenge approaches that rely on awareness and instruction alone. They demonstrate that lasting sustainable consumption may require the deliberate reorganisation of retail practices. Ultimately, the study affirms that to change behaviour, we may need to change the

practices that structure the retail environment. In doing so, supermarkets can become genuine sites of sustainable transformation rather than simply places of product exchange.

Acknowledgement

The authors acknowledge the support of the supermarket managers and staff in Dar es Salaam who participated in this study. Gratitude is also extended to the research supervisors at the Open University of Tanzania and the management of Mwalimu Nyerere Memorial Academy for their support, guidance and facilitation during the research process.

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Conflict of Interest

The authors declare no conflict of interest regarding the conduct or publication of this study.

Consent for Publication

Informed consent was obtained from all participants. Participants were assured that their responses would be used solely for academic purposes and that no identifiable personal information would be published.

References

1. Abiola, B. A., Visser, M., & Daniels, R. C. (2023). Addressing plastic bag consumption crises through store monetary and non-monetary interventions in South Africa. *Sustainability*, 15(3), 9688.
2. Amani, D. (2024). Is ethical packaging the right way to go? The impact of green packaging on consumer legitimacy in the cosmetics industry. *Cogent Social Sciences*, 10(1), 2319375.
3. Ajzen, I. (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision Processes*, 50(2), 179–211.
4. Barbosa, B., Shojaei, A. S., & Miranda, H. (2023). Packaging-free practices in food retail: The impact on customer loyalty. *Baltic Journal of Management*, 18(4), 474–492.
5. Berri, A., & Toma, L. (2023). Factors influencing consumer use of social supermarkets in the UK. *Cleaner and Responsible Consumption*, 10, 100133.
6. Bissmont, M. (2020). The practice of household waste minimisation. *Environmental Sociology*, 6(4), 355–363.

7. Borasino, E., & Fuhrmann, H. (2022). New kids on the recycling block: The role of supermarkets and bodegas for sustainable consumer behaviour in Lima. *Journal of Circular Economy and Sustainability*, 857–881.
8. Borges-Tiago, M., Almeida, A., Tiago, F., & Avelar, S. (2024). Bringing the innovative attitude-behaviour gap: A dual-level analysis. *Journal of Innovation and Knowledge*, 9, 100561.
9. Cavalcante-Costa, M., Silva, M., & Duarte, M. (2024). Sustainable consumption and practice theory: Connecting elements of clothing and sharing. *Brazilian Business Review*, 21(1).
10. Corsini, F., Laurenti, R., Meinherz, F., Appio, F. P., & Mora, L. (2019). The advent of practice theories in research on sustainable consumption. *Sustainability*, 11(2), 341.
11. Evans, D. (2020). After practice? Material semiotic approaches to consumption and economy. *Journal of Cultural Sociology*, 14(4), 340–356.
12. Gonzalez-Arcos, C., Joubert, A. M., Scaraboto, D., & Guesalaga, R. (2021). "How do I carry all this now?" Understanding consumer resistance to sustainability interventions. *Journal of Marketing*, 85(3), 44–61.
13. Gurova, O. (2024). Practice theory approach to Gen Z's sustainable clothing consumption in Finland. *Young Consumers*, 25(3), 289–307.
14. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
15. Korzilius, H. (2020). Internal and external determinants of consumer engagement in sustainable consumption. *Sustainability*, 12, 1346.
16. Lammi, I. J. (2026). How practices become knowable: Towards a practice hermeneutics. *Journal of Practice Theory*, 2(1), 12–29.
17. Lema-Blanco, I., & García-García, R. (2023). Understanding motivations for individual and collective sustainable food consumption. *Sustainability*, 15, 4111.
18. Munro, P., Kapitan, S., & Wooliscroft, B. (2023). The sustainable attitude-behaviour gap dynamic when shopping at the supermarket. *Journal of Cleaner Production*, 426, 139145.
19. Mushi, H. M. (2025). Moderating role of green innovation between sustainability strategies and firm performance in Tanzania. *Cogent Business & Management*, 12(1), Article 2154321.
20. Mushi, J., & Njau, F. (2024). Sustainable retail transformations in East Africa: Beyond the attitude-behaviour gap. *Journal of African Business & Sustainability*, 12(2), 115–134.
21. Naidoo, M., & Gasparatos, A. (2023). Consumer worldviews and perspectives on environmental sustainability initiatives in the South African supermarket sector. *Journal of Cleaner Production*, 413, 137496.
22. Nandonde, F. A., & Stanton, J. L. (2022). *Supermarket retailing in Africa*. Routledge.
23. Pink, S., & Fors, V. (2025). *Automated practices: How AI and sensors reshape everyday life*. Routledge.
24. Quoquab, F., & Mohammad, J. (2018). A multiple-item scale for measuring "sustainable consumption behaviour" constructs. *Asia Pacific Journal of Marketing and Logistics*, 31(4), 791–816.
25. Reckwitz, A. (2002). Towards a theory of social practices. *European Journal of Social Theory*, 5(2), 243–263.
26. Rusobya, H., Mashili, F., Ebrahim, A. A., & Kimera, Z. (2024). Evaluating compliance with local and international food labelling standards in urban Tanzania. *BMC Public Health*, 24, 1062.

27. Sattlegger, L. (2021). Making food manageable: Packaging as a code of practice for work practices at the supermarket. *Journal of Contemporary Ethnography*, 50(3), 341–367.
28. Schatzki, T. (1996). *Social practices: A Wittgensteinian approach to human activity and the social*. Cambridge University Press.
29. Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice: Everyday life and how it changes*. SAGE Publications.
30. Shove, E., & Trentmann, F. (2025). *The evolution of everyday consumption: How infrastructures shape practices*. Oxford University Press.
31. Slabbinck, H. (2021). Effectiveness of behavioural change techniques in retail. *EIT Food*.
32. Southerton, D., & Warde, A. (2023). Towards sustainable consumption. In A. Hansen & K. Bo Nielsen (Eds.), *Consumption, sustainability and everyday life* (pp. 15–34). Palgrave Macmillan.
33. Southerton, D., Rollason, T., & Shove, E. (2026). Re-viewed: Alan Warde's (2005) 'Consumption and theories of practice'. *Journal of Practice Theory*, 2(1), 1–11.
34. Sovacool, B. K., Hess, D. J., & Cantoni, R. (2021). Energy transitions from the cradle to the grave. *Energy Research & Social Science*, 75, 102027.
35. Spaargaren, G. (2003). Sustainable consumption: A theoretical and environmental policy perspective. *Society and Natural Resources*, 16(8), 687–701.
36. Spurling, N., McMeekin, A., Shove, E., Southerton, D., & Welch, D. (2013). *Interventions in practice: Re-framing policy approaches to consumer behaviour*. Sustainable Practices Research Group Report.
37. Stern, P. C. (2000). Toward a coherent theory of environmentally significant behaviour. *Journal of Social Issues*, 56(3), 407–424.
38. Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
39. Traore, L., Belinga, B., & Lescuyer, G. (2023). A systematic review of the scope and patterns of green consumption in Sub-Saharan Africa. *Sustainability*, 15, 6343.
40. Trudel, R. (2019). Sustainable consumer behaviour. *Consumer Psychology Review*, 2, 85–96.
41. Warde, A. (2005). Consumption and theories of practice. *Journal of Consumer Culture*, 5(2), 131–153.
42. Warde, A. (2022). Society and consumption. *Consumption and Society*, 1(1), 11–30.
43. Warde, A., Sasso, A., & Stevely, A. K. (2023). Situated drinking: The association between eating and alcohol consumption in Great Britain. *Nordic Studies on Alcohol and Drugs*, 40(3), 301–318.
44. Wegener, F., & Jensen, K. (2026). Situational know-how: The role of competences in sustainable retail transitions. *International Journal of Retail & Distribution Management*, 54(2), 45–63.
45. Welch, D. (2019). Behaviour changes and theories of practice: Contributions, limitations and developments. *Journal of Social Business*, 7(3–4), 241–261.
46. Welch, D., & Warde, A. (2015). Theories of practice and sustainable consumption. In L. Reisch & J. Thøgersen (Eds.), *Handbook of research on sustainable consumption* (pp. 84–100). Edward Elgar Publishing.
47. Winkler, L. L., Toft, U., Glümer, C., Bloch, P., Buch-Andersen, T., & Christensen, U. (2023). Involving supermarkets in health promotion interventions in the Danish Project SoL. *BMC Public Health*, 23, 706.
48. Zhan, M. X. (2022). Waste in zero-waste households: The power of materials and norms in everyday consumption. *Journal of Interdisciplinary Studies*, 5(1), 4.

