



SPAC

Centre for Sustainable Livelihoods
September, 2019

Policy Brief

Part 1: Findings from ongoing EPA research project on 'Sustainable Production and Consumption (SPAC): The Influence of Social Norms'

Identification of attitude-behavioural gaps and targets for attention of policy makers and the public – to stimulate sustainable behavioural change

The SPAC Challenge

- In 2015-2016, food is in the top 3 household weekly expenditure in Ireland (14.7%).
- Food waste from households linked with unsustainable consumption behaviour.
- Household decisions and habits linked to household food waste
- Ireland recorded 580kg per capita waste - 6th largest across EU-28 in 2016.
- Ireland has the least land committed to organic farming in EU-28, 1.66% of total farm land in 2017.
- Ireland is in the bottom 5 of 2017 SDG12 score among EU-28 members (46.9/100).

Questions answered

- What environmental drivers are linked to consumer shopping, consumption and waste (SCW) behaviour and how can these be measured?
- How much impact do these environmental factors have on SCW behaviours and therefore waste?
- The value of environmental knowledge and concern to SCW behaviours.
- The environmental barriers and gaps to sustainable food consumption and waste behaviour.

THE SPAC OVERVIEW

Consumer behaviour represents acts of decisions that influences the direction of production and consumption activities. Undertaking these decisions in sustainable manner results to sustainable consumer behaviour. On daily basis, humans engage in activities that involve shopping and purchasing decisions, and the resulting act of waste disposal. Decisions emanating from consumer behaviour are reflected through several economic and household activities. These daily decisions often turn to habits and routines that drive behavioural attitude and preference, which are largely influenced by the consumers' socio-economic background, community (e.g. access to shopping facilities and infrastructure), environmental awareness, beliefs (opinion), knowledge (information gap) and concern (e.g. environmental concern and concern for local businesses). To understand consumer behaviour, qualitative and more often, empirical studies are carried out, several of which involve survey activities.

Therefore, we conducted a survey that overly aims at 'understanding the influence of social norms towards sustainable production and consumption in Ireland'. The survey involves questions that capture respondents' knowledge of sustainability; awareness to existing sustainability policies and campaigns; shopping method and food disposal habits. We present partial observations from the ongoing questionnaire distribution. For example, Figure 1 shows the percentage share of 306 responses by rank of understanding of 'organic and inorganic' and consumer decision at price discount to consider products irrespective of organic label. Figure 2 shows the link between consumer knowledge to dispose food packages in environmentally friendly ways and the habit of never separating waste before thrashing. It shows respondents with 'very poorly' knowledge have largest share of never separating waste (30%).

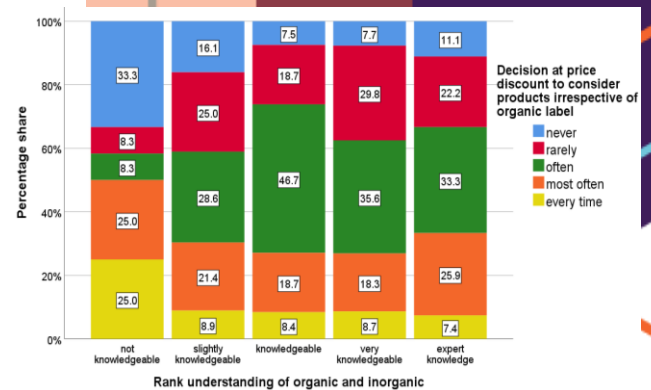


Figure 1: Understanding and shopping decision

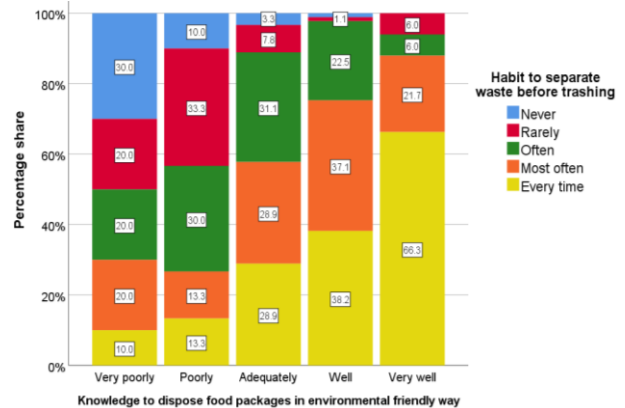


Figure 2: Disposal knowledge and waste habit

To identify more validated observations, an experimental analysis was performed on the first 306 respondents. The analysis involves the use of factor analysis (FA) to explore environmental barrier-gap to planning, consumption and waste behaviour among Irish consumers. The factor analysis is executed in two approaches (i) Exploratory factor analysis – to explore data for relevant questions and measures (ii) Confirmatory factor analysis – to develop hypotheses, model structure and determine relationships and patterns. The findings inform policy that support the transition to a more sustainable consumption and production environment, such as identifying environmental barriers and gaps in areas of waste attitude-behaviour, and ultimately informing areas to target and stimulate behavioural change.

EXPERIMENTAL OBSERVATIONS FROM SURVEY OF IRISH CONSUMERS

Environmental barrier-gap to planning, consumption and waste behaviour among Irish consumers

Based on the applied methodology and reliability tests, seven measurement metrics were extracted from the questionnaire.

Extracted measures (metrics) from questionnaire:

1. Environmental concern (attitude)
2. Environmental knowledge (information gap)
3. Concern for local business (attitude)
4. Environmental opinion (belief)



5. Environmental bargain (behaviour)
6. Planning habit (behaviour)
7. Waste habit (behaviour)

Measures 1-4 are assumed as environmental drivers of consumer behaviour, while behaviours were measured in 5-7.

Figure 3: Environmental factors relating consumer attitude

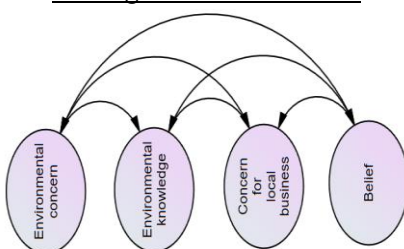
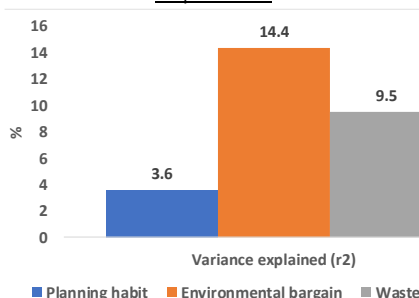


Figure 4: Behavioral effect explained



Our developed model structure is used to determine the presence and significance of these relationships.

Observations

Environmental concern has the highest relationship value with concern for local business at 0.693, followed by relationship between environmental concern and environmental knowledge at 0.492, and environmental knowledge and concern for local business at 0.416. This suggests the value of environmental knowledge and the resulting information gap as a barrier to environmental concern and concern for local business. There is a negative relationship between environmental concern and environmental bargain at -0.342, suggesting the effect of willingness to consider products on price discount irrespective of organic and eco-labels based on level of environmental concern. Environmental bargain depicting an act of consumer savings on less environmentally friendly produce has negative relationship with waste habit at -0.203. There is a significant and positive relationship between waste habit and planning habit at 0.16 estimation. We found environmental knowledge and concern, as well as concern for local business as three key determinants that explain part of variance in the consumer's planning, shopping and waste habit. The environmental drivers explained variance of 3.6% for planning habit, 14.4% for environmental bargaining behaviour and 9.5% for waste habit (see Figure 4). The result suggests the environmental bargaining act as a higher target area for policy makers.

Environmental Concern is explained by importance of 'eco-labels', 'food sustainability labelling (Origin green)' and 'production type by organically or not', in consumer's purchase decision.

Environmental Knowledge is explained by rank of consumer's understanding of 'organic and inorganic', 'eco-labels' and sustainability. Environmental opinion is explained by consumer's belief that there is unclear meaning of sustainability, recycling, rating logo; limited options on environmentally friendly products in store; and not enough information about environmentally friendly appliances.

CONCLUSION & POLICY ACTION POINTERS

Conclusion

Although Ireland has drawn up national policy to achieve SPAC, several indicators (e.g. organic farm land percentage, household waste per capita, SDG12 score) suggest a low presence of SPAC performance. The global aim of implementing the SDG12 includes reduction of food and general waste, increasing awareness on sustainable development and lifestyles. This study findings support these goals, as it establishes the negative effect of lack of environmental knowledge through information gap and environmental concern to planning and waste behaviour.

We proposed four environmental metrics (1. Environmental concern; 2. Environmental knowledge; 3. Concern for local business and 4. Environmental opinion) as driving factors for consumer shopping and waste behaviour. The level of environmental awareness and understanding influences how consumers shop and consume. Through sustainability knowledge and understanding (e.g. awareness to eco-labels, difference in organic and inorganic labels), consumers can influence the direction of production activities. The choice and decisions for environmentally friendly products can influence the direction of demand and supply in sustainable approach.

Action plan

1. Target environmental and social policy intervention to shift towards sustainable consumer and social behaviour. Specific actions include promotion of environmental educational campaigns, adverts, integration in curriculums from primary to tertiary education.
2. Increase household awareness to bridge environmental information gap:
 - (i) Target improvement of environmental knowledge to increase environmental concern.
 - (ii) Target awareness campaign that enlighten consumers on environmental and sustainability terms, labels, definition and implications.
3. Change in consumer behaviour towards planning, willingness to bargain environmental products and waste habit.

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ACKNOWLEDGEMENTS

This report is published as part of the EPA Research Programme 2014–2020. The Programme is a Government of Ireland initiative funded by the Department of Communications, Climate Action and Environment and administered by the EPA, which has the statutory function of co-ordinating and promoting environmental research.