Supplementary Information: Overview of studies on company perceptions of consumers regarding sustainable packaging and interview guideline

Company views of consumers regarding sustainable packaging

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Table S1
Studies revealing company perceptions of consumers regarding sustainable packaging

Authors	Year	Topic	Country	Industry	Empirical design	Sample	Theories used in the study	Major findings on how packaging professionals see consumers
(Bening et al., 2021)	2021	(Conflicting) views of different players in the industry regarding barriers to a circular economy for flexible packaging recycling	Various across Europe	Consumer products	• Literature Review • Semi-structured interviews • Workshop	25 representatives of industry across the value chain plus academia, NGOs and legislators / regulators of which 2 brand owners	• None	• Consumers are confused by the information they find on the packaging, especially concerning bioplastics
(Chakori et al., 2022)	2022	Drivers of food packaging use	Australia	Food	• Semi-structured expert interviews • Content analysis • Network analysis	Experts (number unclear) from across the food industry value chain plus academia, NGOs, umbrella organizations, government and retailers	• Systems theory • Network theory	• Consumer demand for convenience is a major driver of food packaging use • Drivers include purchasing ease, cooking and consumption time, cooking skills, ready-to-eat meals, attractiveness to time-pressed consumers • Consumers should be educated on options for recycling

(Gustavo et al., 2018)	2018	Drivers, opportunities and barriers for more sustainable packaging redesign at a retailer	Brazil	Food retail	• Case study approach • Qualitative interviews • Participant observation	Four senior managers from a retail company	• None	• Consumers are mainly a risk in packaging redesign • They are price-driven and do not care about sustainability • Eco-driven packaging re-design was seen as risking a loss of customers. Only re-designs that also yield a cost advantage, such as switching to bigger packages for products of which customers usually buy more than one, is seen as feasible
(Kleine Jäger and Piscicelli, 2021)	2021	Collaborations for circular food packaging	Various across Europe	Food	• Qualitative interviews • Qualitative content analysis	17 experts from companies (with 5 food producers and 3 retailers)	• Developed own theoretical framework	• Green consumers are potential drivers for reusable packaging • Consumers need to be educated
(Ma et al., 2020)	2020	Barriers and enablers from companies in the transition towards zero plastic usage	UK	Various FMCG industries (incl. food)	• Semi-structured expert interviews • Qualitative content analysis	13 experts in seven FMCG firms	• None	• Among the barriers and enablers of reducing plastic in packaging, consumers were mentioned both as enablers (19, most important enabler) and barriers (15, second most important barrier) • Consumers are portrayed as:

								- influenced by education - holding contradictory views (careless versus environmentally conscious) - convenience-oriented - of different preferences in different countries - able to be nudged by companies • Retailers are portrayed as very powerful
(Molina-Besch and Keszleri, 2023)	2023	Industry stakeholders' view on biobased plastics in food packaging	Sweden	Food	• Semi-structured interviews • Content analysis	17 experts from the packaging and food industry as well as from the retail sector	• Theory of Planned Behavior (TPB)	• Consumers do not always sort plastic waste correctly • Biodegradable plastics may be thrown into nature
(Roy et al., 2023)	2023	Industry stakeholders' view on barriers for plastic recycling, especially beliefs, attitudes and feelings towards policy implementation	UK	FMCG	• Semi-structured interviews • Semi-directed content analysis	12 experts from plastics manufacturers, government, retailers, academia and recycling companies	• COM-B framework	• Consumers are at the center of plastic waste issues • Lack of knowledge (confusion) and unwillingness to separate plastics • Consumers do not separate plastic waste appropriately

								• Need to educate all consumers, which is why social media cannot be the only communication channel
(Ryynänen and Rusko, 2015)	2015	Packaging professionals' view of consumer-packaging interaction	Finland	Food	• Unstructured theme interviews • Reconstruction of narratives	14 packaging professionals, four from packaging design agencies, no manufacturers	• None	• Consumers do not distinguish between product and packaging • Consumers interact with packaging in two distinct phases: purchasing and using; the meaning of packaging is different in the two phases • Consumers perceive packaging through visual and tactile interaction (seeing and touching) • Consumers display a contradictory attitude towards changes in packaging; they reject changes but also appreciate new packaging • Consumer packaging practices are not consistent and characterized by routines (automated, little meaning) and

								traditions (strong meaning)
(Steinhorst and Beyerl, 2021)	2021	Measures enable more sustainable plastic use / avoidance of new plastics by consumers	Germany	Food and beverages	Written semi-structured expert interviews Qualitative content analysis	28 experts from businesses, academia, politics and NGOs; two were producers and three retailers	• None	• Consumers are not the most important change agents • Lack of eco-friendly alternatives for consumers • Need to raise consumer awareness so that consumers change their behavior

Table S2
Interview guideline

Key question/stimuli/telling request		
1) Now I would be interested in your view of consumers with regard to packaging. In your view, what role does packaging play in consumers' purchasing decisions?		
Content aspects	Maintenance questions	Specific follow-up questions
• Importance of product versus packaging • Packaging characteristics (information, manageability, product protection, sustainability, etc.)	• Can you think of anything else to add? • Is there anything else you would like to add? • Can you describe it in more detail?	• For which products or in which situations do you think the packaging is particularly important for the purchase decision? • In your opinion, which characteristics of the packaging are particularly important for consumers? (If necessary, differentiate according to product groups) • How important do you think the sustainability of packaging is for consumers? • For which products or in which situations do you think the sustainability of packaging is particularly important for consumers? • For which customer segments is the sustainability of packaging particularly important in your opinion? • What role do these segments play as target groups for your products? • How do you communicate sustainability in relation to your packaging?

Key question/stimuli/telling request		
2) What do you think "sustainable packaging" is for consumers?		
Content aspects	Maintenance questions	Specific follow-up questions
• Renewable • Reusable • Recyclable • Degradable • Renewable raw materials • As little packaging as possible • … From (Herbes et al., 2018)	• Can you think of anything else to add? • Is there anything else you would like to add? • Can you describe it in more detail?	• What characteristics make packaging sustainable for consumers? • What differences do you see between different groups of consumers?
Key question/stimuli/telling request		
3) How do you think consumers recognize sustainability-related properties of packaging? We can use the properties you just mentioned as a basis again.		
Content aspects	Maintenance questions	Specific follow-up questions
• Packaging color • Quantity/scope of the packaging layers • Size and shape of the packaging • Type of material • Brand name • Information on the packaging • Labels • Pictures/visualizations • Further information/online research • Own assessment of the packaging material From (Herbes et al., 2020)	• Can you think of anything else to add? • Is there anything else you would like to add? • Can you describe it in more detail?	Where do you think consumers are particularly likely to make inaccurate assessments of the sustainability of certain packaging?

Key question/stimuli/telling request		
4) How do you rate the knowledge of consumers regarding sustainable packaging?		
Content aspects	Maintenance questions	Specific follow-up questions
• Knowledge regarding certain aspects • Gradations of knowledge • Frequent misconceptions	• Can you think of anything else to add? • Is there anything else you would like to add? • Can you describe it in more detail?	• Which aspects do you think consumers already know a lot about and which aspects do they know rather little about? • What do you consider to be frequent misconceptions? • How do you take this knowledge into account in your communication on the sustainability of packaging?
Key question/stimuli/telling request		
5) How did you gain these assessments about consumers?		
Content aspects	Maintenance questions	Specific follow-up questions
• Role of market research in comparison to other methods of gaining knowledge (sales people, own experience, ...) • Market research methods used in the company • Extent, detail and frequency of market research activities • Role in the decision-making process	• Can you think of anything else to add? • Is there anything else you would like to add? • Can you describe it in more detail?	• What role do the results of market research play in these assessments? • On which topics have you already conducted or commissioned market research in the field of packaging? • What methods were used? • What does a typical study look like? • How often do you do something like this? • What role does market research on packaging play compared to product-related market research?

		• How do the results feed into the decision-making process discussed earlier?