

Material and Methods: Exploring Chinese Consumer Acceptance of Smart Food Packaging This ## study investigated Chinese consumer acceptance of active (AP) and intelligent (IP) food packaging through quantitative surveys conducted in Beijing. To ensure a well-founded basis for the surveys, the research team conducted a comprehensive literature review and a qualitative pre-study. This pre-study comprised 16 individual interviews with packaging experts and five focus groups (n=32) in China, exploring consumer perception and acceptance of smart food packaging. Two paper-and-pencil surveys, focusing separately on AP and IP, were administered to a convenience sample of participants aged 18 and older, living in China, and primarily responsible for household food management decisions.

Participants were recruited using an intercept method in shopping malls, convenience stores, supermarkets, and tourist sites. The surveys included three sections: demographics, packaging, and trust. The packaging section, specific to each survey type (AP or IP), examined consumer perceptions, behaviors, and attitudes towards smart food packaging. It included questions on existing food packaging practices, satisfaction levels, and willingness to consume products utilizing AP or IP. Participants also indicated their acceptance of specific product types packaged with smart technology. Trust questions addressed participants' trust in various institutions regarding food safety responsibility, including agricultural industry, food industry, science/research field, pharmaceutical industry, government agencies, and consumer organizations. Data analysis utilized SPSS software (version 25) with a chi-square ( $\chi^2$ ) test for independence to analyze the relationship between novel packaging acceptance and consumer characteristics. Post hoc testing was employed using contingency tables to identify the variable contributing to statistical significance. The results of this study shed light on the factors influencing Chinese consumer acceptance of AP and IP technologies and contribute to the understanding of consumer behavior within this emerging market.