

Introduction: Exploring Consumer Acceptance of Smart Food Packaging in China Food safety is a ## global concern, with Chinese consumers exhibiting heightened anxiety. Traditional methods like preservatives and heat treatment fall short of modern consumer demands for "clean label" and "minimal processing." This necessitates alternative approaches, with food packaging playing a pivotal role. Smart packaging, encompassing both active and intelligent packaging technologies, offers innovative solutions.

Active packaging (AP) interacts with the product, package, and environment to enhance shelf life, maintain quality, and inhibit microbial growth. This is achieved through processes like oxygen absorption, moisture control, and the release of antimicrobial agents. Intelligent packaging (IP), meanwhile, utilizes sensors and indicators to monitor product status and quality. It provides information on origin, storage conditions, and microbial activity. While smart packaging holds immense potential, several barriers hinder its widespread adoption, including material compliance, environmental sustainability, and consumer perception. This study focuses on the latter, particularly in the Chinese context, where limited research exists. Previous studies, mainly conducted in Western societies, have identified factors influencing consumer acceptance of smart packaging, such as education, gender, and brand preference.

Research on food consumption behavior in Turkey has highlighted the influence of age, income, and health concerns. Studies in China have indicated that women, highly educated individuals, families with children, and the elderly have greater food safety concerns. Research on genetically modified foods suggests a positive correlation between younger age and acceptance of such innovations. Additionally, consumption behavior and trust in institutions have been shown to impact acceptance of new technology. Trust, often based on perceived accuracy, expertise, transparency, and public concern, plays a crucial role in forming consumer perceptions and trust in food products. This study, conducted in a relatively affluent area of Beijing, aims to assess Chinese consumers' attitudes toward existing food packaging and explore factors linked to their perception and acceptance of smart packaging. By understanding these dynamics, this research aims to contribute to the successful adoption of smart .packaging in China