

**FROM TECHNOLOGY TO
THE TABLE: DISCOVERING
CONSUMER ACCEPTANCE OF
SILICON VALLEY-INSPIRED
FOODS**

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SUMMARY

This study investigates consumer behavior towards Silicon Valley foods. Consumer behavior emerges as a result of psychological, cognitive, and emotional decision-making processes. This process results in purchase intent. On the other hand, Silicon Valley foods have become an important place where technology and food meet. In this context, the study has a broad research scope. Examples include 3D-printed foods, cellular agriculture, experimental gardens, mindful eating, and food delivered by drones and robots. Technology and food converge in these areas. Technological developments in the food sector are represented by foods that are designed and prepared with a focus on sustainability. The prepared foods are also influenced by factors such as efficiency, personalization, and environmental performance. Consumer experience, understanding and interpreting how consumers behave, is important for understanding these innovations. As a result of these responses, it can be determined whether the products produced are accepted in the market where they are sold.

The technology acceptance model (TAM) and the theory of planned behavior (TPB) are among the most frequently used behavioral models in social sciences. While TAM is specific to perceived behavior, the theory of planned behavior explains behavior in terms of factors such as time and skill resources. In the innovation of modern foods, technologies such as digital production technologies, IoT-based food safety systems, and the use of artificial intelligence are becoming increasingly widespread. User attitudes, social influences, and perceptions are decisive factors in the adoption of these innovations. The conceptual model has been developed to focus on three points. The

core constructs are defined as Silicon Valley product perception (SVP), attitudinal evaluation-attractiveness (ATR), and general attitude (ATT). Perceived risk will be denoted by the letter R. The model examines how consumers perceive these structures and their purchase intention (PI). The structures interact with each other; attitude, product perception, and perceived risk play a role in determining consumers' behavioral intention.

A quantitative research design was created, data was collected from 400 consumers, and these measurement data were evaluated. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to analyze the relationships in complex models and to test non-normally distributed data. The model's psychometric robustness, consistency, and predictive (convergent) validity were found to be high (.). The Fornell-Larcker criterion was calculated to determine its discriminant validity, and the Heterotrait-Monotrait Ratio (HTMT) values were examined. The data obtained were found to be consistent with the global model fit index.

Consistent and meaningful results were obtained from the structural equation model. Silicon Valley foods have been found to have a positive effect on both attractiveness and overall attitude. This indicates that they increase emotional attractiveness and evaluative attitudes towards Silicon Valley foods. The emergence of attitudinal structures has primarily shown a meaningful and positive effect on individuals' purchase intentions. In contrast, the direct effect of Silicon Valley foods on purchase intention was found to be insignificant. It shows that consumers' perceptions of the product and their purchase intentions are influenced solely through attitudes. It is understood that perceived risk has a negative effect on purchase intention and even acts as a significant barrier in this behavioral process. In other words, while perceived risk does not completely prevent adoption, it acts as an indirect barrier to the conversion of positive attitudes into purchase intention.

The determinacy of attitude has been observed to be consistent with patterns previously obtained in food research regarding technology acceptance, online food purchasing behavior, and the adoption of digital services. The centrality of perceived risk is consistent with previous studies, where familiarity with technology, security concerns, worries, and uncertainties often overshadow perceived benefits. Foods and food innovations inspired by Silicon Valley attract attention and curiosity. They also demonstrate a dual identity (innovative culinary experiences and technology).

All these findings reinforce the attitudes of industry stakeholders while also highlighting the need to reduce perceived risk. Strategies such as experiential marketing, applications that support sensory familiarity, defining the narrative within a specific framework, establishing transparent communication, and providing security assurances can be used to reduce perceived risk. The findings also emphasize the importance of managing the process correctly. They reveal that managing the process in a way that provides confidence will lead to a high level of acceptance of innovative food and beverage technologies.

Overall, this study reveals in greater depth how consumers behave cognitively and emotionally towards food technologies. It identifies and positions attitudes, risks, perceptions, and purchase intentions from the beginning to the end of the process.

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