CONSUMER STUDIES

Acceptance and sustained use of personalized nutrition services

Personalized nutrition holds great promise to support people's health. There are a number of services already existing or under development that aim to facilitate personalized nutrition for consumers through provision of information or advice. The success of such services relies largely on consumers' willingness to provide their information and engage with these services. Within Stance4Health we conducted several studies in order to understand the factors that influence **consumers' acceptance and use** of a personalized nutrition service like the one developed in this project, namely the i-Diet app that uses microbiome data to provide personalized advice.

Uptake of personalized nutrition depends on consumer and service characteristics and type of input needed

People vary in their interest to uptake personalized nutrition. The main aspects that influence consumers' acceptance of personalized nutrition relate to individual characteristics of the consumers, characteristics of the service and type of input needed from people. **First**, those people who have an **interest in following a healthy diet** are the ones more open to using nutrition apps. Thus, solutions like i-Diet may attract consumers with a pre-existing goal of healthy eating instead of those that would benefit most from nutrition advice.

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Second, the features of the app, and **the way the personalized nutrition service is delivered**, further contribute to acceptance. People are more willing to use a personalized nutrition app when it allows **customization** and when it provides **feedback on performance** and the possibility to **choose rewards** (Stancu et al., 2022). When it comes to the delivery of the advice in a personalized nutrition service, people have a strong preference for personal interaction. However, **a combination of AI-based advice and personal interaction** is also a feasible approach for a sizable segment of consumers. This implies that providing the option of personal contact, even at extra cost, could help the success of the i-Diet app.

Third, consumers were rather unfamiliar with **the concept of the microbiome.** When the concept was explained, personalization based on microbiome was seen as acceptable by some consumers, whereas others were unwilling to uptake a service based on microbiome personalization. Clarifying the science behind the microbiome and emphasizing the benefits of the i-Diet approach is imperative in gaining acceptance as people were more likely to be open to such a service when the benefits exceeded the ones of existing solutions.

An important potential barrier are people's ethical concerns.

Main concerns relate to **data protection and storage** and people's perception that providing certain data is an intrusion on their privacy. From an ethical standpoint, most people see the microbiome data as less intrusive than other types of personal information. Furthermore, a significant segment of consumers find the disclosure of microbiome information as acceptable. These perceptions can contribute to the success of i-Diet that uses microbiome data to provide advice. Thus, there is a clear need to provide consumers with clear information and assurance around data protection and storage.

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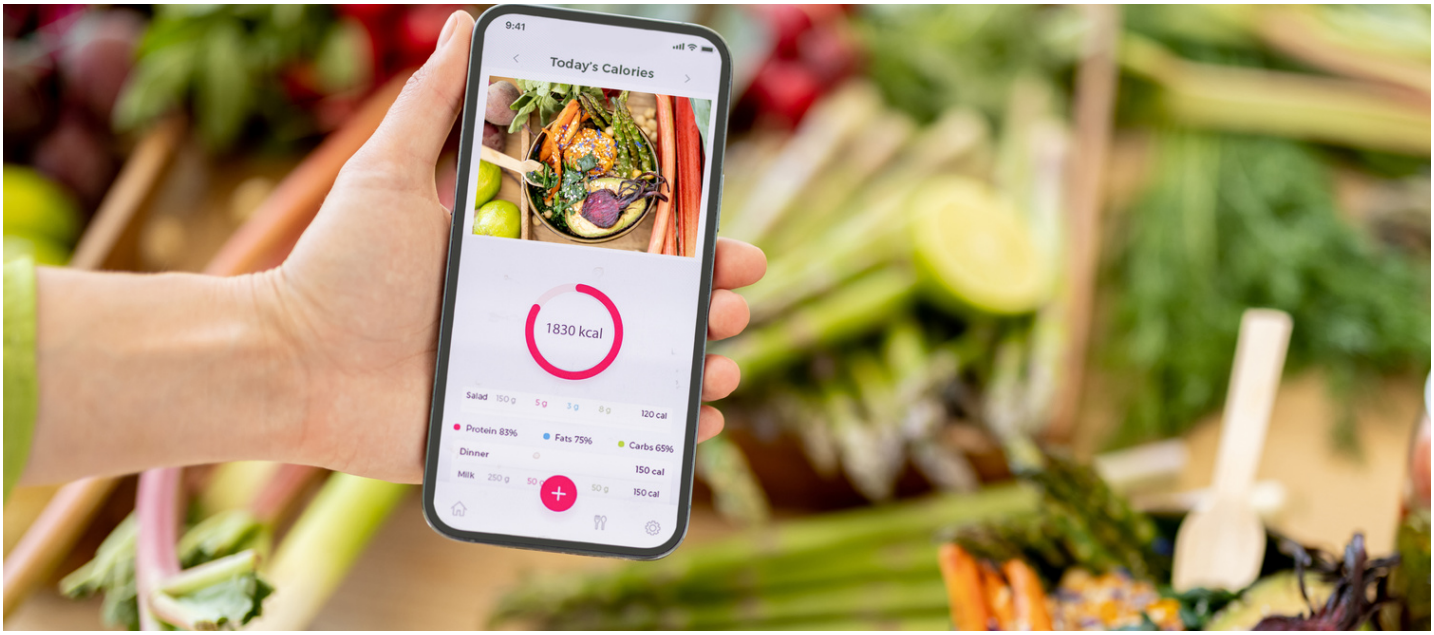
Sustained use of apps depends on their functionality and whether people are satisfied with them

In order for people to gain the potential benefits of personalized nutrition they need not only to uptake a service like i-Diet but also to continue using it. Whereas motivation plays a significant role in willingness to accept nutrition apps, the **ease of use** of such apps and the extent to which they can provide the **promised benefits** are key for sustained use. Therefore, on the longer term there needs to be a focus on the functionality of the app ensuring that people using it are satisfied with its performance.



A sizable segment of consumers is willing to use personalized nutrition and services such as the i-Diet app. Therefore, there is a **market potential** for such a personalized nutrition solution. There are though many aspects to consider in order to facilitate the success of i-Diet. In addition to knowing one's target group, there is a need to ensure the **optimal design of the app** and to emphasize the most desirable attributes of such a service, to make the scientific basis and the **benefits** of the advice clear, and not least, to provide **assurances** to consumers in terms of ethical concerns.

The information included is based on project results covered in Deliverable 4.2.

Reference

Stancu, V., Frank, D.-A., Lähteenmäki, L., & Grunert, K. G. (2022). Motivating consumers for health and fitness: The role of app features. Journal of Consumer Behaviour, 21(6), 1506– 1521. https://doi.org/10.1002/cb.2108

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