



White paper

Personalized Nutrition – Future Of Nutrition Or Just Another Fad

Technology advancements, information accessibility and the increase in consumer interest towards nutrition and wellness have led to a new category of products and services in the form of “Personalized Nutrition”. Brands are investing capital and resources to develop innovative solutions to remain relevant and consistent in the ever-changing market.

This paper examines some of the solution formats in personalized nutrition, and potential approaches that food & nutrition players can take to move in this direction.

Introduction

“Personalization” is the buzzword captivating consumers as well as similar corporations across the manufacturing and service industry. Personalization and mass customization has been the drive for the consumers’ interest in the market for the past few years, and the trend is expected to further intensify this absorption. The diversion from the “one size fits all” products is partly driven by a continued rise in the number of educated consumers. As consumers across the world become more aware and engaged with what they use and consume, there is a growing need to adopt a more personalized approach to products and service offering.

Food and beverage industry is one of the early birds joining the personalization bandwagon with personalized diets and supplements available through medical practitioners. However, this access was made available to a limited sector of the population. In the contemporary society, digitization has made it possible for everyone to gain access to tailor-made nutrition solution, be it from websites offering assistance through surveys, to supplement manufacturers offering test kits to their customers.

What is Personalized Nutrition?

Personalized Nutrition or DNA based diet is a concept of making use of some degree of DNA testing to arrive at dietary recommendations specific to an individual’s genetic makeup. These tailor-made diets can be designed to resolve problems associated with gut health, food allergies and other dietary restrictions, as well as weight-loss goals.

Personalized nutrition is one of the fastest growing markets, providing solutions ranging from customizable labels to DNA-specific meal plans. Businesses of all sizes are making use of

Royal DSM acquired Misfit - one of the few companies offering end-to-end solutions in the personalized nutrition market.

Intelligent Nutrition Assistant (Mina), a prototype by Misfit is capable of analyzing a person’s genetic make-up, as well as diet, lifestyle and health goals to prepare and dispense beverages containing a customized mix of DSM’s Quali Blends.

innovative technology and strategies to create personalized experiences for their customers, and develop more meaningful connections.

Discussed below are some of the solution formats offered by personalized nutrition companies:

- **Supplement + Workout + Lifestyle recommendation**

Companies that offer this segment usually provide its customers with a test kit for sharing DNA samples, which are then analyzed in labs by the service providers along with information provided through questionnaires to draw a customized diet plan. These tests normally rely on blood, saliva and stool samples for understanding the patient’s body make-up. Most companies operating in this space offer nutrition, supplements, and lifestyle recommendations based on the individual’s genetic profile. Few companies such as Inside Tracker also make provisions for nutrition plans and solutions for groups.

▪ **Personalized/Subscription Supplements**

Companies operating under this business model don't only provide recommendations, but also provide the supplements in a subscription format. Few companies such as Care/of provide the products in single serve packages for the convenience of consumers. Majority of the companies operating in this segment also make use of questionnaires to aid assessments and recommendations. Companies like Vitamin Pack also take into consideration other medication and pharmaceutical drugs consumers use, to consider potential drug interactions.

▪ **Lab Tests + Supplements/Food**

Services available in this segment involve providing supplements as well as designing and delivering meal kits to the customers based on blood and/ or saliva samples collected through test kits. Habit, acquired by Campbell, is one of the key service providers of this segment.

Many companies such as supplement brand, Pure Encapsulation operates in this segment relying on data collected by 23andMe, which conducts the lab test while Pure Encapsulation offers supplements utilizing the analysis under its Puregenomic Program.

▪ **Wearables + Supplements**

Companies offering this nutrition program such as STYR Lab offer end to end service platforms that use wearables such as fitness tracker, wireless scale and their apps to produce custom protein and multivitamin blend kits for the customers.

Examples of the smart devices offered by these companies are smart watches, smart bottles and similar forms of fitness sensor integration.

Many companies such as Inside Tracker intend to be a part of this segment.

Currently, most companies are actively involved in the supplement recommendation space. Big players such as Campbell, DSM and Nestle have invested in technology platforms such as Habit and Misfit to foray into the personalized nutrition sector and supply the end to end tailor-made solutions to their customers.

How Effective is Personalized Nutrition?

Many of the companies in the personalized nutrition space are relying on a small number of SNPs in a limited number of genes to make assumptions about diets that can minimize risk for the occurrence of some future diseases or disorders. Most of these solutions rely on algorithms designed to scan through the repository of scientific research and studies conducted to evaluate the response of DNA to a specific type of food and develop dietary recommendations. However, in many of these studies, researchers relied on self-reported dietary information to construct this trial. In addition, large numbers of small, inconclusive and irreproducible studies are commonly ignored to develop more conclusive results. Although the existing methods used have certain limitations

and need revisiting, it also offers potential for further development.

Though the effect of DNA based diets is yet to be quantified and proven, scientists studying nutrigenetics believe that dietary recommendations based on a full or partial DNA analysis would be more efficient than that of a run-of-the-mill weight-loss program.

One of the Washington Post story revealed that 95% of weight watchers following generic weight loss programs eventually put back on any pounds they'd initially shed.

What Next?

Though athletes' form the core customer group for these products and services, gradually the market is expanding and capturing the fancy of fitness enthusiasts and dieters, especially among city dwelling population across the globe. With the emergence of major consumer trends such as healthy eating, need for customization, affordable convenience and quantified self-technology, the non-athletic users would be demanding for personalized nutrition. Customers today are flooded with affordable options to choose from, since most commercial tests available in the market range from US\$99 to US\$300. For instance, WellPath offers a one-month supply of personalized shakes and vitamin blends for \$40-\$50 based on the questionnaires filled by subscribers.

On the technical front, the next step for companies in this field would be the pairing of DNA analysis alongside lifestyle factors. Hence, this helps an individual understanding their DNA, what it says about their health, and then creating actionable recommendations for diet, exercise, and supplementation to achieve their optimal health.

CI believes that the personalized nutrition space has room to grow and accommodate many more actors to achieve its full potential. Some of the immediate opportunities for companies interested in expanding or foraying into the personalized nutrition space are:

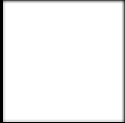
- Big companies can scout for consumer segments in search for holistic nutritional solutions and provide scale to niche and disruptive business.
- Supplement suppliers can bridge the gap between companies providing test based recommendations and consumers.
- Companies can develop new channels such as gyms, sport centers, health centers and health and wellness resorts to reach the most prospective customer base.
- Formation of disruptive business models through new partnerships with organic grocery stores and medical professionals for the purpose of bringing more holistic nutrition solutions to the marketplace.

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