

Researchers identify key personalised-nutrition business models and factors

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The delivery of personalised-nutrition advice – dietary recommendations which take into consideration phenotypic differences such as height, weight and blood type, in addition to genetic and dietary data – share several similarities with the mechanisms of a business model, which delivers a particular product or service. Thus far, Personalised Nutrition Offerings (PNOs) have failed to gain a commercial foothold in the marketplace. Researchers in the Food4Me project, from the [Wageningen University and Research Centre](#), Netherlands, and the company [Bio-Sense](#), in Brussels, Belgium, undertook a search and analysis of the PNOs currently available to consumers. Their results were published in the journal, [Genes and Nutrition](#).

Nutrition advice is predominately dispensed on a population-based level, which does not account for individual differences. In recent years there has been an increase in PNOs, which has been fuelled by a growing body of research into nutrigenomics – the science that underpins the relationships between our dietary intake and genetic expression. A key element of the Food4Me project has been to determine how to deliver these services to consumers more effectively, in order to encourage better and healthier dietary behaviour.

The researchers say that the development of PNOs share a number of similarities with trends in the economic market place including a move towards tailored products or services, where consumers' individual differences such as income, socio-demographic factors and preferred communication channels are considered when designing and delivering products or services.

Attempts to commercialise PNOs have had little success; however, if PNOs are to come into fruition, commercialisation is essential. The aim of the research was to determine the already existing PNOs and then to classify them according to the business models which underpinned them. An internet-based Google search was used to identify the different personalised-nutrition offerings which exist within the marketplace. Data was included if cases that related to nutrition had a personalised element to the service and provided a product or service which was based on information provided by the consumer. The initial search term "personalis/zed nutrition" yielded 25 million results from nine different countries in Africa, Europe, North America and parts of Oceania. Then, varying search terms which were classified under the categories of 'nutrition', 'personalisation', 'product' and 'consumer information', were used to optimise the results. Search terms were entered in English and also in Dutch, the native language of the researchers. This process resulted in 76 'cases' available to consumers.

In order to map these cases, the Food4Me researchers classified them according to different components of a business model, which included the value derived from the service, the activities undertaken in the delivery of the product or service, consumer relationships, communication channels and resources used. This classification process was used to reveal nine personalised nutrition model 'archetypes' which are currently available.

Over half (40) of the 76 total cases found and analysed provided advice based purely on the intake of dietary data, 27 from the combination of dietary and phenotypic data and nine provided advice based on a combination of dietary intake, phenotypic and genotypic data. Only a small number of the PNOs required genetic information, suggesting consumers are currently unwilling to provide genetic data. The majority of the identified cases were targeted towards those who wished to lose weight or pursue a healthier lifestyle. A cost analysis revealed that the majority of the services ranged between 0 – 100 Euros and services which required genotypic data and one-off visits resulted in a higher cost to the consumer.

The mapping process identified nine archetypal business models, of which 'Step in, step out' and 'Test and run to the finish' were identified as the two most popular. The former uses dietary and phenotypic based information provided by the consumer via the internet to deliver advice. The latter builds on 'Step in, step out', by providing feedback about progress towards particular phenotypic measurements, for example weight loss.

The provision of genotypic data for personalised nutrition advice is still an exception, rather than the norm and consumers may be reluctant to provide this data for privacy reasons. The researchers propose that consumers may be more willing to provide genotypic data if it was used for widespread preventative studies, rather than to obtain individual curative advice. Building a stronger relationship with consumers is a critical aspect of any business model to ensure a steady income of revenue and to provide consumers with a tailored service, instead of a one-off interactive event. Moving forward, consumer retention, which is the ability of a company to attract and sustain consumer loyalty, is key to ensuring the successful commercialisation of PNOs. This could be achieved by providing consumers with additional steps and goals to work towards, beyond the initial diagnosis, as well as products and services including journals, smartphone apps and online shops, which can all form a crucial part of the consumer relationship management model.

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For more information please see:

[Ronteltap A, van Trijp H, Berezowska A, Goossens J. \(2013\). Nutrigenomics-based personalised nutrition advice: in search of a business model? Genes and Nutrition. 8:153-163.](#)