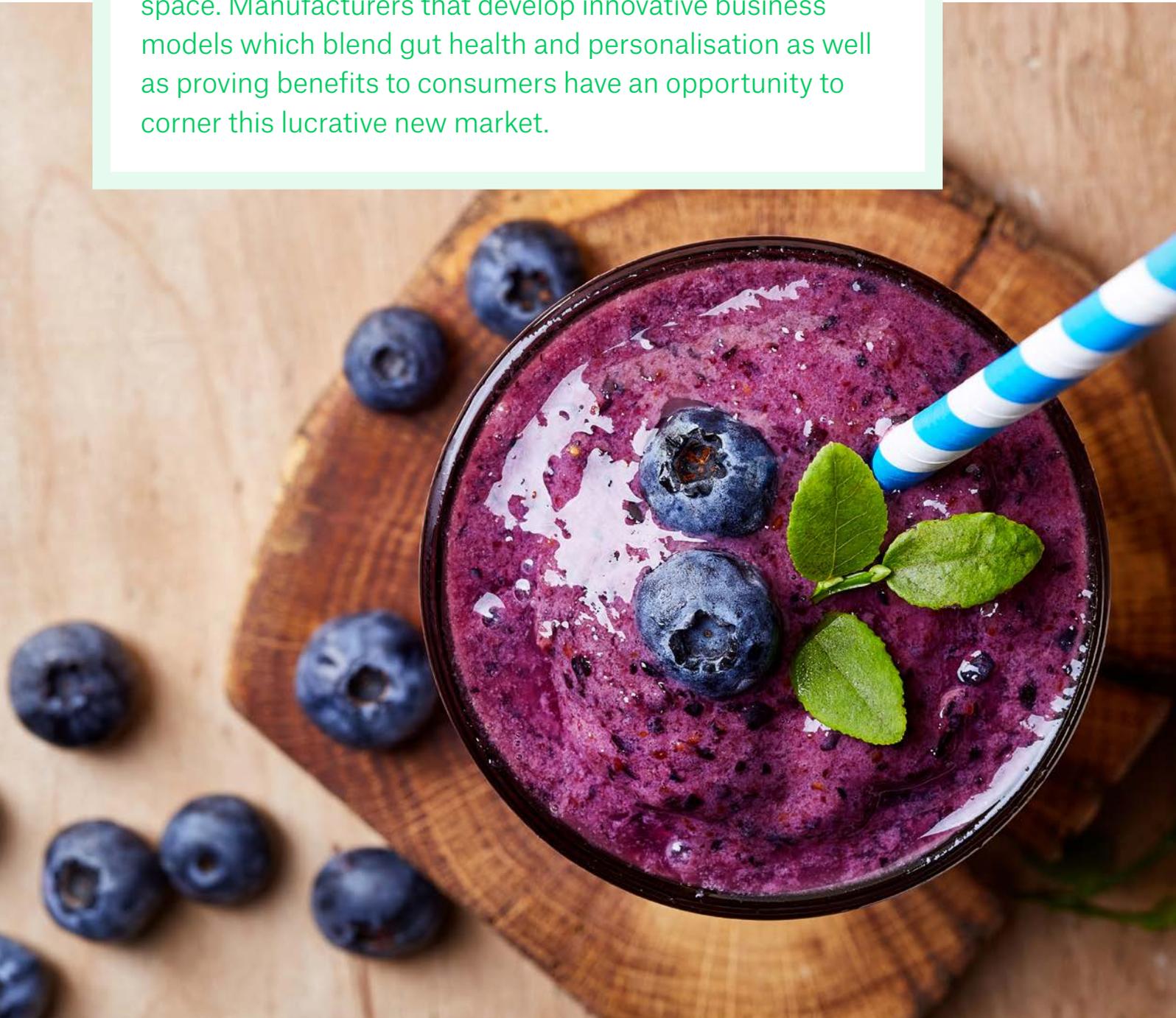


Unlocking personalised nutrition

Increased understanding of gut health presents new opportunities for personalised nutrition; but challenges surrounding delivery and the need to provide consumers with 'reasons to believe' must be resolved.



Mounting evidence surrounding the gut microbiome's role in individual health and wellness is set to be a gamechanger for personalised nutrition. However, the personalisation of food and beverage products and services at scale poses many challenges. Demonstrating and communicating the benefits of this approach to nutrition is also an emerging space. Manufacturers that develop innovative business models which blend gut health and personalisation as well as proving benefits to consumers have an opportunity to corner this lucrative new market.



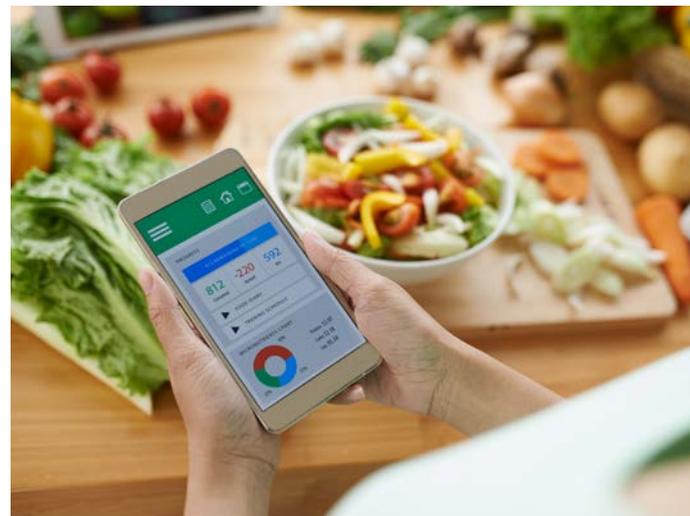
Personalised nutrition is big business

Healthy eating is becoming more sophisticated. The science behind factors such as the gut microbiome and its impact on individual wellness is evolving fast. We are developing a deeper understanding of the important but delicate relationship between diet and human health.

This is driving a surge of interest and investment in personalised nutrition. Recent reports estimate that the global market will be worth \$16.4billion by 2025¹. And a CB Insights paper looking at the transformative potential of human microbiome insights says:

“...gut-targeting custom supplements and nutrition programs have been gaining traction as more consumers look to build a holistic approach to health and wellness. A key driver here is the hyper-personalization trend that consumers have come to expect from their products and services.”²

However, while development of food and beverage products delivering tangible health benefits at the individual level is accelerating, there are challenges to be overcome. The relative lack of manufacturing technologies enabling largescale personalisation is an area of intense focus. Running parallel to this is the growing consumer demand for products that quantify and validate lifestyle choices. There is an increasing need for digital solutions that satisfy this from a nutritional perspective.

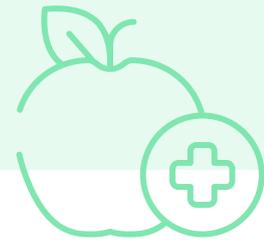


In the not too distant future, these areas will converge to form a lucrative segment of the food and beverage industry. Organisations wanting to capitalise on this and play a lead role in personalised nutrition need to work on their business roadmap now. That means looking at the bigger picture – the overall business model and go-to-market strategy – alongside product development.

In the digital economy, where empowered customers have high expectations, these areas are inextricably linked. Some people will pay more for products tailored to their own nutritional needs. But in return they will expect a sophisticated experience and evidence that the higher price tag delivers value for them personally

The key to personalised nutrition

As gut microbiome understanding improves, the food and beverage industry is working to develop tailored products with supporting health claims. There are challenges to be overcome, from production and distribution to evidencing health benefits. Nevertheless, progress is being made, for instance in harnessing and leveraging the benefits of probiotics and prebiotics.³



Commercial models

The installed manufacturing footprint of most food and beverage providers is designed to meet the needs of mass production. It delivers scale and convenience while protecting products' sensory properties and shelf-life.

This can conflict with the needs of a more personalised approach to food and beverage production. Difficulties vary between different environments and product types, so there is no single solution. For instance, the challenges associated with pre-packaged foods are quite different to those faced in the food service industry where products are prepared for immediate consumption.

Our Personalisation Strategies Framework (Figure 1) rationalises this complexity. It segments the market in terms of pre-packaged versus unpackaged foods and mass customised products versus those offering a more individually personalised experience.

The framework provides a strong foundation for new business models geared towards personalised nutrition. None of the existing approaches is perfect, but each offers a potential starting point.

At the heart of this framework is the consumer. Demonstrating and communicating the benefits of a more personalised approach to nutrition is a critical success factor. Ultimately, giving consumers 'reasons to believe' underpins loyalty, advocacy and repeat purchase.

Manufacturers need to make purposeful decisions about the most appropriate path to personalisation for their offering, then find ways to evolve and improve it. Reinforcing this with reasons to believe in the effectiveness of products will heighten competitive advantage and commercial success.



Figure 1 - Strategies towards personalization

The personalisation spectrum

As Figure 1 indicates, there are different degrees of food and beverage personalisation. Mass customised products typically give a perception of individual personalisation. However, out of necessity of scale they are designed for a specific demographic or cohort. Customers select a product that they closely identify with; or choose what they want from within a limited range of pre-defined options.

At the other end of the scale is a deeper level of personalisation which requires more focused engagement between the manufacturer or service provider and the customer. Replicating this at scale in an economically viable way is not easy.⁴

Both ends of the spectrum offer potential for nutritional personalisation. However, technologies for consumer engagement and product manufacture need refinement, as do methods for distribution and order fulfilment.

Personalisation: four ways

The 'G Fuel' approach

Products targeting specific cohorts or demographics can perform very well. The rise of energy drinks such as G Fuel for the gaming community is a case in point. This strategy could be mirrored with gut-healthy products focused on specific demographics such as new mothers, pre-school children or aging populations.

Mass customisation of pre-packaged foods for personalised nutrition can be achieved through largescale use of probiotic or prebiotic ingredients. In this way, existing products might be evolved, or entirely new product lines could be created. The beverage sector has already seen an influx of gut-healthy fermented drinks such as kombucha and kefir hitting supermarket shelves.



The challenge is to combine mass customised gut health products with a deeper personalised nutrition experience. Digital engagement can be an effective way to achieve this.

It will be interesting to see the outcome of the recent partnership between Mars Edge (a subsidiary of Mars Inc, focused on global personalised nutrition) and foodspring. As a direct-to-consumer targeted nutrition company, foodspring offers personalised fitness food and sports nutrition products. Personalisation is achieved via customer interactions with a 'coach' in the form of a recommendation engine which guides product choices.

Amway's Nutrilite brand takes personal engagement to another level with its bodykey weight loss offering. Customers provide a DNA sample for genetic analysis and the results form the basis of a tailored diet and exercise plan.

It's easy to see how approaches like these might be replicated for mass market personalised nutrition rooted in gut health. A medical test, or an online questionnaire, could trigger personal dietary advice combined with targeted product recommendations.



The 'HelloFresh' model

In the pre-packaged category, moving from mass customisation to deeper personalisation is a challenge. However, the trend for personalised meal kits could represent a way forward.

Because meals are 'assembled' by the manufacturer for final preparation and cooking in the home there is more scope for flexibility and diversity in the ingredients used. This model evokes the principle of 'delayed differentiation' outlined in an article on mass customisation in the food industry published by the International Journal of Product Research⁵:

Delayed differentiation refers to preparedness for customer orders and their switching from being speculative to commitment. It means leaving product differentiating activity as late in the manufacturing process as possible. It is a tactic which enables pseudo-responsiveness of the manufacturing system in the eyes of the customer by relying on responsiveness only of later manufacturing operations.



This has much potential for the personalised nutrition space. Individuals could plan meals incorporating probiotic or prebiotic ingredients suited to their needs.

A joined-up approach between food manufacturers and gut health specialists might be beneficial here. The partnership model adopted by personalised nutrition platform Habit and Amazon Fresh shows how it might work. Customers sign up for a personalised nutrition plan from Habit, then complete an online questionnaire and submit blood test results for LDL cholesterol, HDL cholesterol, total cholesterol and fasting triglycerides. This informs a plan incorporating a daily food guide, top-ranked foods and personalised recipes. The Amazon Fresh partnership makes it easy to source the recommended items.

The 'Five Guys' method

Mass customisation is standard fare in QSR. Typically, sector players focus on one core competency – burgers, tacos, sandwiches – and customisation is built on top of that. Because ingredients are standardised, preparation is quick and easy.

A McKinsey article⁶ published in 2013 considered how technology might enable mass customisation to evolve into mass individualisation. In food sector terms, this was likened to the difference between offering a frozen yoghurt with a custom topping choice (configured customisation) and personalised food and vitamins based on nutritional needs (individualised customisation).

Some of the recommendations in the article remain highly relevant today. The authors suggest that delivering individualised customisation in a profitable manner demands a holistic approach, drawing on different business units and supported by technology. They conclude that:

To shape this next wave of mass customization, leaders must work closely with business-unit, IT and other functional managers to create a new integrated business model that can harness the power of new technologies to cost-efficiently serve consumers on the exact needs they have.

The big question is whether mass customisation techniques that have succeeded in the QSR space to date can be adapted effectively for personalised nutrition. And will such approaches offer enough differentiation and engagement for the ultra-competitive HORECA space? Or are the scale, brand muscle and margins associated with QSR necessary to make it viable?

The 'VitaMojo' experience

Restaurants already offering highly-personalised healthy dining experiences are ripe for personalised nutrition offerings linked to gut health. Existing models that could be adapted to achieve this include those developed by Souplantation in the US and VitaMojo in the UK.

At Souplantation users engage with an interactive nutrition menu, indicating their health preferences. Based on their selections, they receive meal recommendations that suit their needs and goals. The application also offers more general 'personalised wellness choices' where users can opt for meals to help them 'fuel up' or 'energise'.

VitaMojo offers a similar service in its three London-based QSRs. Customers can personalise healthy meals to meet their own requirements using an app to change the quantities of different elements and achieve their optimal nutritional profile.

However, at heart, VitaMojo is more than a restaurant, it's also a software company. In 2019 it secured £10m funding to support the wider rollout of its innovative Restaurant Operating System which is tested and iterated in its own restaurants.

The Souplantation and VitaMojo concepts could easily accommodate the integration of functional ingredients, with specific items added to dishes in a quantity that suits the customer. Could partnerships with testing platforms also be an option, to offer a more joined-up and seamless user experience?

This niche area of FoodTech is likely to expand in the coming years. It has the potential to quickly step up to the personalised nutrition challenge, using gut health as a starting point.

We are also considering how the impact of the COVID-19 pandemic will impact on consumer demand for sustainable products. For example, will efficacy prevail over natural solutions? Given the emphasis Gen Y and Z (the key future consumer groups) place on the importance of sustainability, we do not expect sustainability to be taken off the agenda in our post COVID-19 world.

Across commerce, government and society we believe the strong intent to protect against future pandemics through hygiene and cleaning strategies will continue. Innovations based on collaborative ecosystems and open strategies are likely to be central to the development of successful innovations and we anticipate that we will continue to work with many of our clients in the quest for new innovations and successful external partnerships.

Consumer 'reasons to believe'

As we emphasised at the outset, evidencing health benefits and outcomes in a way that engages consumers is the cornerstone of a sustainable personalised nutrition offering.

Moment of truth⁷ marketing is a useful reference point here:

First moment of truth - when the customer first encounters a product.

Second moment of truth - when the customer purchases the product and uses it.

Third moment of truth - when the customer provides feedback on the product, potentially sharing this with friends, colleagues, family members and social media.

If consumers are paying a premium for a personalised nutrition solution, the second moment of truth is vital. They need proof that their lifestyle goals are being met. This is closely linked to the third moment of truth, where choices are further validated or advocated through social sharing.

So what will reasons to believe look like?
How can the benefits of personalised nutrition be measured and conveyed?

Data will be central here. Initially, data related to an individual's gut microbiome will drive recommendations which inform nutritional choices. These choices then need to be linked to measurable performance criteria.

The level of sophistication for these outcome metrics will vary depending on the business model taken and the product price point. At the deepest level, this is likely to relate to the health and diversity of the gut microbiome. Products such as the Atlas BioMed gut microbiome test kit, which advises testing at three monthly intervals, offer a detailed way to track progress and outcomes.

However, monitoring and tracking other health-related factors such as energy levels and sleep quality is likely to be more appealing, practical and affordable for many consumers. What's more, the existing installed base of wearable health and fitness trackers, such as smart watches and the FitBit, provides a readymade solution.

This is a complex area, and it will difficult for a single food or beverage product to achieve a measurable change in gut health. Rather, individuals are likely to benefit from the cumulative impact of many 'gut healthy' dietary choices over the course of weeks and months. Manufacturers will need to find ways to convey this to consumers.

Ultimately, there is likely to be a 'validation spectrum' with scientific analysis at one end, and more straightforward measures at the other. These might include social media and experiential applications where consumers can document how they are 'living their best life'. The key is to ensure desired health and wellness outcomes are properly defined and measured at the individual level.

A convergence of expertise

A global survey conducted by our sister company Leatherhead Food Research underlines the strength of consumer demand for personalised nutrition. It found that 42 percent of consumers actively incorporate specific foods into their diet based on perceived health benefits. And nearly a third (32 percent) of respondents said they would like products matching their personal dietary and nutritional needs to be more readily available³.

Gut health understanding, coupled with agile manufacturing/distribution and technologies to measure the 'digital self', brings truly personalised nutrition tantalisingly close. But there are still many challenges, from the development of effective personalisation models aligned with the product and target audience, to evidencing positive health outcomes.

These barriers are not insurmountable. But overcoming them will demand a convergence of expertise and extensive collaboration between organisations and specialists across a diverse range of fields. There is likely to be a meeting of minds between HealthTech and FoodTech companies that are blazing a trail in this exciting space. The secret is to find ways to put the pieces together before the competition.

Here at Oakland, we have the technical expertise and market experience to help manufacturers navigate this complex area with purpose and precision. We can assist with the strategic execution of ideas to ensure personalised nutrition innovation drives commercial success.



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