

SmartProtein: Automatic Protein Supplement Dispensers for Gyms Business Plan

Programme: Certificate in Higher Education Business Skills for the Workplace

Module: LCLM4006 Enterprise and Entrepreneurship

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EXECUTIVE SUMMARY

SmartProtein is a startup offering automatic protein powder vending machines in gyms and fitness centres across the UK. Users can choose their protein type, flavour, and portion size using a touchscreen or mobile app, and get fresh servings to mix with water or milk. This solves a current common problem: gym users often forget their supplements or find ready-to-drink protein drinks expensive, limited in choice, and bad for the environment. SmartProtein offers a convenient, on-demand, and eco-friendly solution.

The business targets the growing UK fitness sector, where over 11.3 million people have gym memberships. Rising health consciousness, social media influence, and the popularity of protein supplements support the market's commercial viability. SmartProtein's unique selling points of customisation, convenience, and sustainability differentiate it from traditional vending machines and other bottled drinks.

SmartProtein will be set up as a private limited company, giving the founder limited liability and making it easier to get investment. A small management team will run day-to-day operations, with marketing and finance outsourced at first. Marketing will focus on a own website, Instagram, TikTok, influencer partnerships, and in-gym promotions.

The business needs £45,000 to start, with £15,000 from the founder and £30,000 from angel investors. This funding will pay for machines, marketing, and initial stock, allowing SmartProtein™ to launch and begin generating revenue quickly.

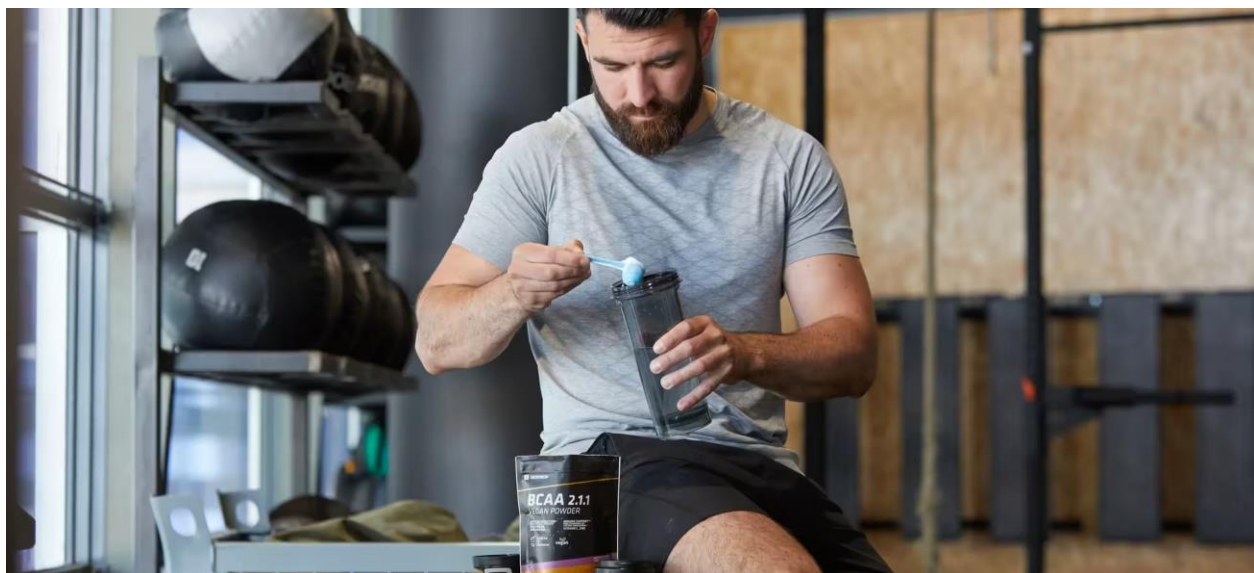
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OVERVIEW

SmartProtein is a business focused on providing automatic protein powder vending machines installed directly inside gyms and fitness centres. The machines dispense measured servings of protein powder that customers can mix with water or milk using their own shaker bottles. Users can select from different protein types, flavours, and portion sizes through a touchscreen or mobile app. This idea responds to a very relevant consumer problem: many gym users forget to bring supplements or find ready-to-drink protein products costly, environmentally unfriendly, and limited in choice. By offering a fresh, on-demand solution, SmartProtein increases convenience while reducing packaging waste.

With the increasing prevalence of chronic diseases associated with poor dietary habits, sedentary lifestyles, and mental health challenges, public awareness of the importance of healthy nutrition and physical activity has risen substantially. As a result, consumers are becoming more proactive in adopting active lifestyles and seeking functional food products that support long-term health and overall well-being (Arenas-Jal et al., 2020; Raba, 2025). According to UK government business statistics published by the Department of Business and Trade, the health and fitness sector continues to expand alongside wider wellbeing industries (Department for Business and Trade, 2024). In 2025, there were over 11.3 million gym members across the United Kingdom and more than 7,200 registered gym and fitness facilities, highlighting the scale and growth potential of the UK fitness market (Statista, 2025). In addition, powdered protein plays a crucial role in muscle repair, growth, and protein synthesis (Newar et al., 2022), for these reasons, a significant portion of gym users take these supplements (Almudaihim et al., 2024). These trends support the commercial viability of SmartProtein.



The unique selling point of SmartProtein lies in customization, convenience, and also sustainability. Unlike the traditional vending machines which sell bottled protein drinks, SmartProtein offers measured servings, reduced plastic waste, and integration with gym environments. This combination differentiates the business from competitors and positions it as an innovative, scalable solution within the sports nutrition market.

LEGAL FORMAT AND MANAGEMENT STRUCTURE

SmartProtein will be established as a private limited company (Ltd) under UK company law. A private limited company is defined as a business entity where the liability of its members is limited to the value of their shares, allowing it to have a legal personality separate from its members and ensuring clear definitions of interests and responsibilities within the firm (Merrills and Fisher, 2013). This structure has been chosen because it offers limited liability, protecting the personal assets of the founder, and is viewed as more credible by investors and commercial partners (Dignam et al., 2018). In addition, private limited companies have no minimum share capital requirement, making them more accessible and financially practical for new ventures which reduces financial pressure during the startup phase (Dignam et al., 2018). A limited company structure makes it easier to attract external funding, such as investment from business angels and venture capital firms, by allowing the business to issue shares (Bridge and O'Neill, 2017). This is especially important for SmartProtein, as the business aims to grow and relies on ongoing investment to support technological development.

As this is a startup, the management structure will initially be lean (Ballé, 2022). The company will be led by a Managing Director, who will be responsible for overall strategy, investor communication, and partnerships with the gyms. An Operations and Technology Manager will manage machine maintenance, supplier coordination, and software systems. In the early stages, marketing and finance activities will be outsourced to keep costs low. As the business grows, additional roles such as sales staff and technical support will be added. This flexible management structure helps control costs while maintaining effective day-to-day operations (Bustamante, 2019).

PESTEL AND COMPETITOR ANALYSIS

A PESTEL analysis has been considered an essential tool for startup success (Matović, 2020). Below is an assessment of the external environment affecting SmartProtein using the PESTEL framework:

1. **POLITICAL:** The UK government has policies supporting entrepreneurship and small businesses, including startup loans and innovation grants, which creates a supportive environment (Parliament UK, 2025).
2. **ECONOMIC:** While inflation has increased operational costs and reduced consumer purchase power, consumers are still spending on health and fitness (Experian, 2025). A recent UK study reports that a growing share of consumers now view gym membership as essential spending, rather than discretionary, with only 10 % considering it a luxury, and 38 % calling it essential, illustrating a shift in how fitness costs are prioritized (Consultancy UK, 2026).

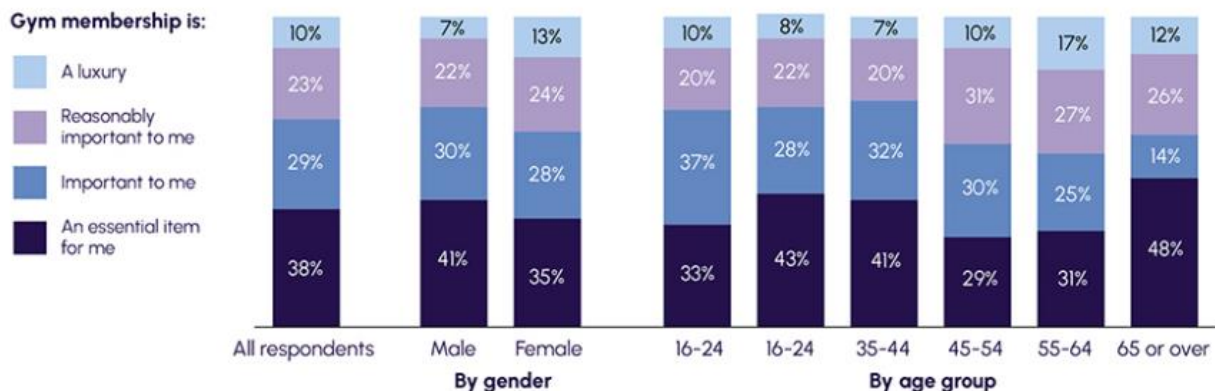


Figure 1: How consumers view gym memberships (Source: CIL Strategy Consultants, Total Fitness, 2026).

3. **SOCIAL:** UK fitness industry reports a strong societal shift towards health consciousness, fitness, and high protein diets (Campbell, 2025). In addition, social media influence and fitness culture have normalized supplement use, particularly among younger adults (Maeda, 2025).
4. **TECHNOLOGICAL:** Advances in vending technology and also consumer preference for cashless or QR-based payments benefit SmartProtein (Doziyu, 2025).

5. **ENVIRONMENTAL:** A UK consumer survey found that many consumers prefer reusable, refillable packaging and consider reducing single use plastics important, with 64% believing reusable packaging is more effective at reducing waste than recycling (Dabo, 2025). Another survey reports that consumers in many countries, including the United Kingdom, are increasingly willing to pay more for products with sustainable, environmentally friendly packaging (Nordigården et al., 2025). A YouGov survey from 2024 also found that around half of current gym users consider sustainability an important factor when selecting a gym (figure 2). This indicates that orienting themselves as sustainability-forward establishments might help gyms and fitness centres gain traction (Dsouza, 2024), making SmartProtein's low-packaging model and attractive choice for gym owners.

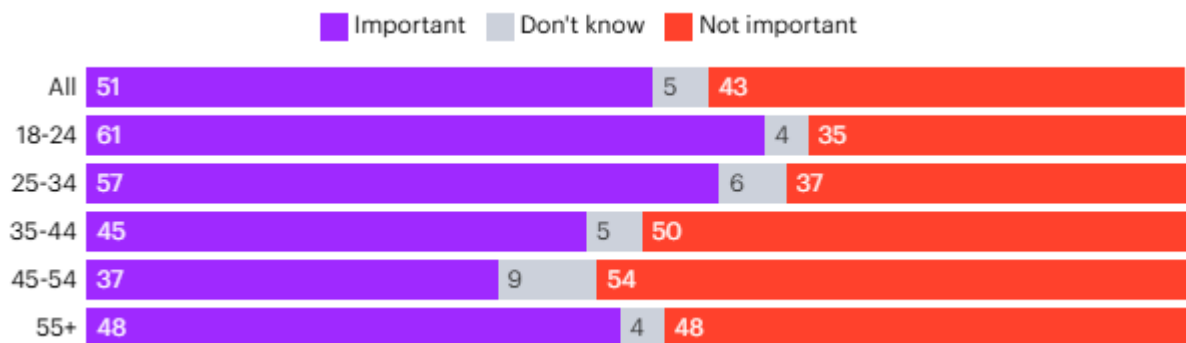


Figure 2: Gym users value for sustainability (Source: YouGov Surveys, 2024).

6. **LEGAL:** Compliance with UK food hygiene regulations, allergen labelling laws, and machine safety standards will be essential factors to consider (Food Standards Agency, 2024). These requirements may increase setup costs but also act as barriers to entry for competitors.

In terms of competition, direct competition for this business in the UK remains limited, as most gyms rely on protein shakes sold at reception or standard vending machines offering bottled drinks. However, indirect competitors include supplement retailers and ready-to-drink protein brands, but SmartProtein differentiates itself through on-site availability, customisation, and lower per-serving costs, giving it a competitive advantage over them.

MARKETING STRATEGY

SmartProtein™ will adopt both a business-to-business (B2B) and business-to-consumer (B2C) marketing approach, since the primary customers are gym operators and the end-users are gym members.



Digital marketing will play a central role in this business. A professional website will be used to showcase the product, explain benefits to gym owners, and collect potential enquiries. A recent study by Liu (2025) states that the marketing strategies in the sports industry “have shifted from traditional advertising and sponsorship models toward more interactive and personalized digital marketing approaches”, with social media marketing becoming an essential tool. Hence, social media platforms such as Instagram and TikTok will be used to reach and engage consumers, with content characteristics that directly influencing purchase intentions. In addition, SmartProtein will partner with social media influencers, since this has been proven to be an effective modern digital marketing strategy that shapes consumer attitudes and behaviours (Leung et al., 2025; El-Shihy et al., 2025).

In-gym promotion will include branded machine designs, instructional signs, and discounts for first time members. Partner gyms will also be encouraged to promote SmartProtein through their own communication channels (Dsouza, 2024).

Location strategy will also be crucial. Machines will initially be placed across gyms with high footfall in cities such as London. Within gyms, it will be important to place install machines in visible areas to maximize usage and impulse purchases.

FUNDING REQUIREMENTS

SmartProtein requires an initial investment of £45,000 to launch operations. Funding will be sought through a combination of founder equity (£15,000) and angel investment (£30,000). Angel investors are suitable since they not only supply essential early-stage funding but also offer expertise, networks and mentorship, which help startups navigate early challenges and improve their prospects (Lange et al., 2024). Below is a breakdown of the cash flow for the first month of operations:

CASH FLOW

SmartProtein Ltd	MONTH
SmartProtein Ltd	1
Loan- start up capital	£45,000
Sales (total sales of product and/or services)	£0
Other	£0
March	£45,000

Cash out-expenses	MONTH
	1
Rent or premises costs	£0
Business rates for your business premises	£0
Utilities (gas, electricity, water)	£100
Insurance	£400
Telephone and internet	£50
Marketing and advertising expenses	£10,000
Vehicle running costs	£500
Equipment purchase or leasing	£18,000
Postage, printing, stationery	£50
Transport and delivery	£500
Professional fees (legal, accounting etc.)	£400
Cost of sales (Cost of product)	£6,000
Wages your own	£0
Staff wages	£0
Any other	£0
Any other	£0
Total cash out-flows (B)	£36,000

Your net cash flow (A-B)	£9,000
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Figure 3: SmartProtein – First Month Cashflow.

In the initial phase, startups often experience expenses that exceed their revenues while they focus on developing, testing, and promoting their business concept (Garg et al., 2017). Hence, it can be seen that a high first investment in Marketing will be essential to start the business (£10,000) as well as the initial equipment investment (£18,000) and stock purchases (£6,000). Based on the above cashflow, this funding will allow the business to install its first machines, secure gym partnerships, and begin generating revenue within the first three months of operation.

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