



21-22 BUSINESS REPORT



H₂sOap

Cleaner Hands.
Cleaner World.

Country: Isle of Man

School: Ballakermeen

Mentor: Paul Wiseman



EXECUTIVE SUMMARY

MISSION STATEMENT

To reduce the amount of pollution caused by single-use plastics.

OUR BUSINESS IDEA

Our product, H2sOap, is an effervescent soap tablet that, when added to water, reacts to form a foaming hand soap. Over 1 billion single-use plastic bottles are thrown away per year. Using our product will reduce this number as neither the product nor the packaging is made with zero single-use plastic. Customers are given the option to buy a glass soap dispenser alongside the tablets. This dispenser can be continuously reused when the customer buys refills of the H2sOap tablets. Our product has been designed, produced and manufactured completely from scratch by us. As a company, we are very focussed on internal development and self-reliance. Therefore, all of our graphic designs, moulds, 3D prints, video renders and website coding have been done solely by us, with no external services used. In our efforts to remain sustainable, we have shredded our own paper to cushion our packaging, and have even printed our own braille to go on the packaging (Page 4).

OUR GOALS

We want to make a quality product that reduces the amount of CO2 and plastic pollution by eliminating unnecessary waste. Furthermore we hope to run a successful business and to build a company that has potential for expansion, producing a wider range of sustainable products, including variations of our soap and other bathroom products. Lastly, we want to make a greater proportion of sales to regions outside of the Isle of Man and get our product to larger stores

FINANCIAL SUMMARY

Income(£): 1659.43
Costs of Production(£): 624.30
Potential Gross Profit(£): 1035.13

BUSINESS PERFORMANCE

We spent the first four months making and developing H2sOap before we developed our final product. As we made it from scratch, we had to deduce the quantities/ratios of said ingredients. We ordered enough bottles for fifty bundles and within the first month of preorders, 100% of bundles were sold, along with 44% of refills. This report describes our company, product, marketing and sales in greater detail. You can also find all of our social media links on our website,

<https://atlasiom.co.uk/>

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OUR COMPANY

Our company name, “Atlas”, is derived from the statue of Atlas, the Ancient Greek titan. Our brand colours, logo and designs portray this, and by using the statue as inspiration we hope to effectively convey a unified brand identity.



atlas
/'ætlæs/

noun

1. Titan - condemned to hold up the heavens or sky for eternity after the Titanomachy.

Although our roots stem from a symbol of ancient history - consequently bringing hints of classicism - our brand vision is one of innovation, uniqueness and modernism, with a large focus on professionalism and scalability.

OUR TEAM

We came together as a group of 6 best friends, and had always planned to compete in the COYC together. With an extensive set of skills and knowledge between us, we aspired to succeed from day 1.



Josh

Head of
Finance



Cormac

Head of IT
and
Operations



Georgie

Secretary
and Head of
Photography



Deni

Head of
Design



Josh

Sales and
Managing
Director



Mika

Marketing
Managing
Director

When deciding roles, there were some slight overlaps of wants, as some people were suited to similar things - most notably that both Josh and Mika were extremely suitable for the “managing director” role. Very quickly, they came to the mutual conclusion that they would co-manage together. We found this suitable because: a second opinion is always helpful; responsibility is shared; it is better to have another, separate managerial figure in case of conflict. Mika and Josh are extremely complementary individuals, and have worked flawlessly as co-managers to this day.



To keep up with our company, follow:

-  @atlas.iom
-  @atlas.iom
-  Atlas IOM

www.atlasiom.co.uk

#ThinkGlobalThinkAtlas



**BUSINESS
REPORT**



OUR PRODUCT

As a team, we are very aware of the current climate crisis and what that means for our future. Every year, over 1 billion single use plastic soap bottles are thrown away. In an effort to reduce this number, we developed our product: H2sOap. H2sOap is an effervescent soap tablet that, when added to water, creates foaming hand soap. The tablets, in combination with a reusable glass dispenser, can be used to refill the bottle repeatedly. This reduces plastic waste by revolutionising the way people wash their hands.



HOW IS IT USED?

The tablets, in combination with our reusable glass dispenser can be used to fill the bottle repeatedly.



1.

Fill the bottle $\frac{3}{4}$ full with warm water.



2.

Drop one tablet into the water and screw on the pump



3.

Leave for approx. 15 minutes (for solution to develop) and enjoy!

We sell two variations of our product: Bundles and Refills. The bundle is compiled of: a glass bottle and dispenser, 5x tablets (individually wrapped, in refillable branded cotton bag), instruction card, including a QR code to a tutorial video as well as illustrated steps and a business card. The refills are intended for returning customers and are compiled of: 5x refills and a business card.

Bundle

£10.00



Refills

£5.00



ACCESSIBILITY

In an effort to ensure our product is safe and available to all, we have worked in collaboration with Manx Blind Welfare Society to include braille on every box and tactile hazard triangles to ensure the soap tablets aren't mistaken to be edible. This also further widens our potential market.

SCENTS

We offer a choice of four scents with a fifth "mix" option: Orange, Citrus (Orange, Lemon, Lime), Woodland (Siberian Fir, Douglas Fir), Refresh (Lavender, Melaleuca, Peppermint, Rosemary), Burst (One of each and a surprise fifth). Currently Burst is the most popular choice, making up 53.1% of orders.



WHY CHOOSE OUR PRODUCT?

- H2sOap is cheaper on average per bottle of soap: H2sOap costs £1.00 per refill, compared to the leading market competitors £1.49 per bottle.
- H2sOap is better for the environment: It uses no single-use plastic or packaging and we incentivise reusing of packaging. The leading market competitor uses 100% single use plastic.
- H2sOap is better value for money: One refill will last on average 500 pumps, compared to the 280 offered by the leading market competitor.
- H2sOap is more carbon efficient: In the same size vehicle, we can transport equivalent to 8.5x the number of hand washes than that of the leading market competitor. This paired with the low weight of our tablets, makes H2sOap vastly more carbon efficient.

CUSTOMER FOCUS

To enforce our belief in reducing waste, we reward customers who choose our product through our reward scheme - “Reduce, Refill, Reward”. Each time a customer purchases a H2sOap refill, if they bring back their branded cotton bag, they will receive an extra refill tablet for free. This will not only reduce packaging waste and consequent costs, but will also increase consumer loyalty. Details of this can be found on our website, and the scheme is advertised on the instruction cards included with every purchase.



Additionally, we will be providing a wrapping service with the aim of targeting mothers and fathers day, as well as a paid-for delivery service. This covers the cost of petrol to deliver on island sales and the shipping for external sales, allowing customers from all around the world to purchase H2sOap. We offer the option of card payments through our SumUp machine.



ANTIBACTERIAL ABILITY

In order to test the effectiveness of the antibacterial over time, we performed an Agar Jelly experiment. Swabs of bacteria on our hands were taken and placed on agar plates. We washed our hands using H2sOap and repeated the swabbing process. The plates were incubated and the results were recorded. This experiment was also done with a month-old H2sOap solution. We concluded that the tablets are successful in killing bacteria, and that the antibacterial activity does not diminish with age.



OPERATIONS

Our product has been researched, developed and manufactured entirely by us in our school science lab. We formulated our initial prototype based on extensive online-research and advice from teachers. We had 6 categories of ingredients: Surfactant (reduces surface tension), Anti-bacterial, Scent, humectants (moisturiser), Chemical preservatives (for shelf life) and solubility.



PRODUCT DEVELOPMENT

We tested our preliminary formula, and our batch encountered several problems: Too much water - sodium bicarbonate began to react prematurely; tablet was too crumbly and very difficult to pack into a mould; poor soap produced - dissolved slowly and quite scratchy; Solution was too thin, so we decided to switch to a foaming soap.

We adjusted our primary method to produce a second prototype by: purchasing our own washing components, allowing us to find a more gentle surfactant; reducing the concentration of water; crushing some of the larger, crystallised components



The tablet dissolved much quicker, but the solution was not foamy enough. Furthermore, we realised that to mass produce these tablets, a custom mould would be required. We also noticed a high concentration of water in the Cocamidopropyl Betaine (C.Betaine) solution. The team attempted to find a solid, concentrated form - yet this was expensive and difficult to source. Therefore, before purchasing it, we needed to test whether this chemical was in fact the problematic component. To do this, we conducted a fractional distillation of the Cocamidopropyl Betaine to remove the water and subsequently added this solution to our next batch - thus proving our hypothesis. We also deemed the kaolin clay unnecessary; it only diminished the scent of the final solution.

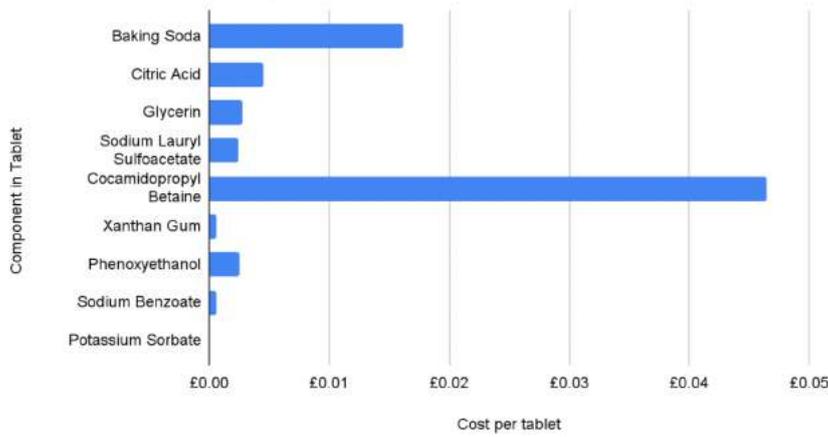


FINAL PRODUCT

The tablets did not rise as much and were easier to mould. They dissolved quicker (due to higher concentration of C.Betaine). The soap foamed better. Due to the success of the distilled C.Betaine we decided to purchase the solid version (regardless of cost and delivery time). We tested a range of scents in the tablets using doterra essential oils. A new mould was created to make smaller tablets that would fit through the neck of the bottle. The tablets were the correct size and maintained their structure. They dissolved and foamed correctly - thus this prototype became our final product.



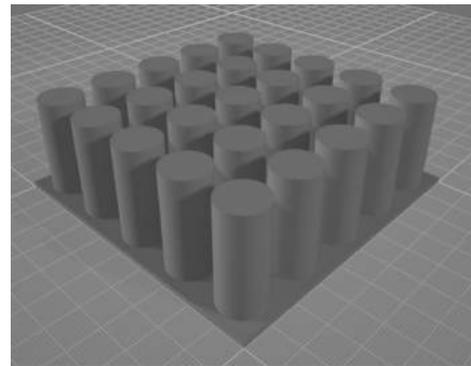
Cost per tablet vs Component in Tablet



Overall the production cost of one H₂Oap tablet is 7.6p. As shown by the graph and table, the majority of this production cost originates from the C.Betaine which is responsible for dissolving the tablet. In an effort to ensure sustainability, we try to supply our components locally where possible.

TABLET MOULDS

We had to manufacture our own moulds to ensure that the tablets remained a uniform shape. We used CAD software to design a model, which was virtually rendered then 3D printed. Silicon was then poured over it to create a reusable mould. Below is the final render of the mould that we created.



PROBLEMS WE HAVE FACED

- Over 30 separate testings had to be done until our formula was finalised
- Due to the timescale of the project and the complexity of designing a stable tablet we were unable to gain certification: Due to Brexit, the laws we need to follow are incoherent; in the future, we hope to acquire a Cosmetic Product Safety Report. To make up for this, we conducted an agar jelly experiment (page 5) and gave out some samples to science teachers and other testers (page 9). Following feedback from said testers, we instilled a stronger scent and made the instructions more coherent.
- Due to the prototyping process we waited long periods between tests as many chemicals were difficult to source. Similarly, the foaming pumps were imported from China as none were available from local suppliers.
- Our initial silicone mould was the incorrect dimensions, so we had to re-design, reprint and re-pour each mould.
- 5/6 of our team members, (in addition to our mentor), have suffered with COVID, meaning many meetings and events have had to be rescheduled/done online
- Our braille (page 4) initially wasn't legible after being tested, so we had to adapt its dimensions



SALES

OVERVIEW

We have decided to sell our product on multiple platforms in order to broaden our market. These platforms include our website (directly and via our social medias), quirky.im, and we are in discussion with multiple local retailers such as mostly manx about selling H2sOap through their stores, as well as corporate offices. A locally owned coffee shop has purchased multiple bundles, and has agreed to promote H2sOap to their customers using a poster we have designed. As an additional platform, we will be publishing a press release in collaboration with the Blind Welfare Society in an effort to promote our product to more hard to reach customers whilst also promoting Blind Welfare and the work they do as a charity.



SPONSORS

In November we volunteered at LoveTech's tech fest and worked with local companies in an effort to find sponsors and gain integral knowledge from industry-experts.



After presenting business pitches to each, Atlas has been sponsored by three companies: Tours IOM, Magpie Digital and MuchBetter. They have helped us to fund the development of our website and the research and testing stage of production.

SALES STRATEGY

We have developed a calculated sales strategy, focused on: growth goals; customer focus; competitive analysis; and product positioning. By setting growth and sales targets, we improved the raw number of sales, as well as gaining multiple international sales in Europe and Asia. This was also helped by our product positioning. By strategically promoting our advertising and marketing, (with focus on facebook and our business cards) we reached our target market, resulting in our product being viewed 1,147 times on our website and being purchased in five different countries.

Our competitive analysis has resulted in competitive prices and a high quality, eco-friendly product, capable of taking on leading brands in the market. This analysis has also led to conversation with Daphne Cain (MHK), the Chair of the Climate Change Transformation Board (Tynwald). Finally, as a result of our customer focused approach, we have received feedback from testers who used the product for two weeks before answering set questions designed to improve its quality from a customer's perspective.



MARKETING

Our product, H2sOap, has the strapline “Cleaner Hands. Cleaner World.” We picked this as our product is both cost-effective and eco-friendly. We arranged several meetings with professionals in the marketing industry, who sat down with us and gave us advice on how to go about branding in order to convey a unified brand image.

In an attempt to increase our market share, we have projected two hashtags across our social media: #ThinkGlobalThinkAtlas and #CleanerHandsCleanerWorld . We will also be targeting the gift market, including Mother’s and Father’s day gifts; we hope to offer a wrapping service for a small extra charge, in order to convey our dedication to personal customer service and to encourage the sales of our product. To increase customer loyalty, we also created our “Reduce, Refill, Reward” scheme - inspired by the popular slogan, “reduce, reuse, recycle” (Page 5).

MARKET RESEARCH

Through our first set of market research, we identified our target market as primarily Facebook users in the 30-60 age range, who would buy soap as one of their household essentials, as well as environmentally-conscious youngsters. These surveys were incentivised by Costa vouchers, which we won at the kickstarter event, and immediately reinvested into our company.

We also conducted market research through samples. We picked 6 neutral testers, who tried the product for 14 days, and then answered our feedback form, regarding: number of pumps; disconcerting bacterial growth; scent maintenance; irritation to the skin, and more. We used this to make adjustments before taking H2sOap to market, the most notable change being larger volumes of scent per bottle.

SOCIAL MEDIA



Influenced by our survey results, we created our 3 social media accounts: Tiktok, Instagram and Facebook to promote our product. We have used these to advertise fundraisers and market research and embed our brand identity into the minds of consumers. We have produced a range of posts, such as our “Behind the scenes” series. Posts like this give our followers insight into our company, and further accentuate our company’s personality and relatability. All of our social media content has been hand-drawn by our Head of Design. We also produced interactive stories to find out customer preferences. This allowed us to gain pivotal insights into consumer demand and helped to increase social media engagement

WEBSITE

Furthermore, we coded and designed our own website, in order to reach the online market. As a result of this, we have received international sales from both European and Asian countries. Our website can be found here: www.atlasiom.co.uk. Through the website, customers are able to make orders, view product videos as well as information about us as a company. We are able to advertise events, our rewards scheme and our available products, while customers have the option to sign up for our email newsletters to be notified of sales or special events.



FINANCES

In the first month of selling, we received 38 pre-orders with £613 revenue and £273.72 profit. In the next fiscal year, we aim to sell 120 more bundles and 85 more refills as a minimum. In total, we have raised £1,659.43 through shares, fundraising, sponsorship and pre-orders. Our total production costs are £624.30 leaving a potential gross profit of £1,035.13. After other expenses of £227.74 our net profit is £807.39, including pre-orders. We will pay our shareholders £350.00 and reinvest £457.39 back into the business.

Name of Company: Atlas		
PROFIT AND LOSS ACCOUNT		
For the period from 18/10/2021 to 11/02/2022		
Income	£	£
Fundraising income		696.43
Sales		613.00
Total income		1,309.43
Purchases	624.30	
Production wages (to make the stock)	0.00	
Total production costs	624.30	
Cost of leftover stock at purchase price		0.00
Total cost of sales		624.30
Gross profit		685.13
Expenses		
Bonus or commission	0.00	
Stationery	46.24	
Rent & hire	0.00	
Marketing	50.00	
Miscellaneous expenses	131.50	
Total expenses		227.74
Net Profit		457.39
BALANCE SHEET AS AT 14th February 2022		
	£	£
Assets		
Stock	0.00	
Debtors	0.00	
Cash in Hand	807.39	
TOTAL ASSETS	807.39	
Liabilities		
Loans	0.00	
Creditors	0.00	
TOTAL LIABILITIES	0.00	
BALANCE		807.39
Money Raised for selling shares		350.00
Profit and loss account		457.39
Shareholders' funds		807.39

Components: Unit Price(£):

1 Box(Refill)	0.61
5 Tablets	0.38
Tissue Paper	0.003
Shredded Paper	0.00
2 Labels	0.30
Business Card	0.06
Bag	0.15

Refill Total: 1.50

Refill:

Retail Price 5.00

Gross Profit Margin (%) 70.0

Components: Unit Price(£):

1 Box(Bundle)	0.83
5 Tablets	0.38
Tissue Paper	0.003
Shredded Paper	0.00
2 Labels	0.30
Business Card	0.06
Bag	0.15
200ml bottle	3.21
Pump	1.28

Bundle Total: 6.21

Bundle:

Retail Price 10.00

Gross Profit Margin (%) 37.9



OUR JOURNEY

We are very excited to see where we can take our company in the future. Right now, it is as important as ever that we try to reduce the amount of plastic waste. We believe that our product could be incredibly useful both now and in the future.

We have learned so much throughout our journey:

- How to work as a team and support one another
- Perseverance when facing challenges
- To listen to customer feedback, improving the product
- The importance of being well organised
- How to negotiate with suppliers and ensure a quality product
- The challenges involved in manufacturing a product and taking it to market

OUR FUTURE



We have high aspirations for our company in terms of scalability. In the future, we would like to see our products in major retailers across the UK, most notably in pharmacies. We have also developed a blueprint of a wall dispenser which is commonly found in offices and other large venues. This H2sOap product has been modified to be able to be refilled with our soap tablets and water, removing the need to replace the thick internal plastic packaging, thus reducing plastic waste, and opening our market to larger 'bulk' consumers. We also hope to expand our dehydrated/reusable product range, e.g. shower gels, and other such products.

ACKNOWLEDGEMENTS

We would like to thank Paul Wiseman, our Business Mentor for the advice and support that he has given us. He has kept us motivated and focused throughout the Company Programme.

We would like to thank Junior Achievement for giving us this amazing opportunity.

We would also like to thank quirky for allowing us to sell our product, and for her help and advice in setting up our product on her website: quirky.im.

Finally, we would like to thank our sponsors for their continued support throughout the competition:

MuchBetter
Tours Isle of Man
MagpieDigital

