# TPE 2023 – Case Study Part 1

## Greentree

### History

Examination November 2017. 2¾ hrs am, 2¾ hrs pm. Pass rate 83.9% - (85% first time sitters).

### Technical Content

Conforms to IAS (as taught by CA Education)

FA 2021

## Background Notes

You are Anna, a recently qualified chartered accountant working for Walker & Mason, a medium-sized accounting firm. You work in the business advisory department of the Newbury office.

It is a Tuesday morning in November Yr57 and you have a 10.15am meeting with Paul Mason, ('Paul'), the partner in charge of the business advisory department.

"Anna, please come in and sit down," says Paul. "We have a lot to discuss. Greentree Spirits Limited ('Greentree') is a small, but fast-growing distillery. They've been an accounting, tax and advisory client for quite a few years now, and the managing director, Susan Lawrence ('Susan'), has been in touch as she needs our help on a couple of matters.

"The Lawrence family have owned a potato farm for generations. The entire potato crop is now bought from the farm by Greentree and used to produce both vodka and gin. All of the key background information is in the permanent file, so I suggest you familiarise yourself with that and the recent financials before you get to work." Paul hands you the permanent file, an extract of which is in Section 1. Financial information from the accounts for the last three years is in Section 2.

"Susan wants to expand the business and has decided to capitalise on the booming craft spirit market by introducing a new product. She has provided us with some information about the various options (Section 3): a flavoured vodka, a flavoured gin liqueur and a vodka-based alcopop. She would like us to prepare a comparison between them looking at both financial and non-financial aspects and make a recommendation as to which product to introduce. I'd like you to produce a briefing paper for her which she can take to the board. To give some context to your product comparison, I would like you to prepare a brief industry analysis which should form the first section of the briefing paper. I've had my assistant do some initial research on the internet and he has printed out some articles for you to review (Section 4). Of course, you will need to ensure that the analysis is relevant to the circumstances of Greentree." Paul hands you the articles. "I'd like a first draft prepared by lunchtime as I'll need time to review it and the Greentree board papers are due to go out tomorrow."

"Is that all?" you ask. "If it is, I'd better get working right away." Paul adds, "No, Susan knows she will need to meet the bank manager shortly to renegotiate the financing of the business. She has asked that we review the financial position of Greentree from the point of view of the bank. Her mum hasn't produced the quarterly management accounts to 30 September Yr57 yet, so you'll need to base your review on the year to 30 June Yr57. Some of the key ratios are included in Section 5. This is just a preliminary memo to give Susan an idea of the sort of thing that the bank will be looking at," Paul adds.

"So, to summarise, you need to produce a first draft of the briefing paper which includes the brief industry analysis and a comparison of the new product options along with a recommendation on which to introduce. You also need to review the financial position of Greentree and produce a memo which Susan can use in preparation for a meeting with the bank. You'd better begin straight away." Paul picks up the phone and you leave the office to get started.

In preparation for answering the case study question this afternoon, you will find it useful to undertake the following tasks during the morning session:

- read all the information carefully and note down any points you feel are significant; and
- prepare the briefing paper and memo requested by Paul.

# Section 1

## Extract from the permanent file of Greentree

### *History and background information about Greentree*

Greentree is based on a potato farm in Oxfordshire. Thomas Lawrence ('Thomas') took over the family potato farm 20 years ago, but after several poor harvests and the downwards pressure on prices from the supermarkets, he decided to completely change the direction of the business and to start using the potato crop to distil vodka. Greentree was incorporated nine years ago, in Yr48, just before the first bottle of Greentree vodka was bottled and sold. Greentree purchased outbuildings from the family farm to house the distillation equipment.

It is a family-run company and the directors are:

**Thomas Lawrence (59)**

Thomas still manages the farm. He is responsible for dealing with Greentree suppliers and owns 40% of the Greentree shares.

**Marian Lawrence (49)**

Marian is Thomas' wife and she owns 20% of the shares. She manages the books for the farming business and Greentree. Her responsibilities for Greentree include dealing with the bank and preparing the quarterly management information. She also manages the payroll and VAT returns. A computerised accounting system is used to record all the financial information.

Marian splits her time between the UK and Spain, although she spends the majority of the year in the UK. She has an apartment in Costa Brava, Spain, which she inherited from her grandmother. She has a laptop computer and is able to prepare the necessary returns and run the payroll from Spain.

**Susan Lawrence (28)**

Susan is the only child of Thomas and Marian. She started working for her father as soon as she left school and helped him to set up the distillery. She was the driving force behind the change to the business as she had little interest in potato farming. Susan is the managing director of Greentree and overseas sales and marketing. She owns 40% of the shares.

**Bethany Bruce (31)**

Bethany is the chief distiller and is the civil partner of Susan. She previously worked for a small brewery, but then decided to train as a distiller.

**Edward Scott (58)**

Edward runs several local garden centres and has known the Lawrence family for years. He is a non-executive director.

## *Manufacturing and products*

The main raw materials of vodka are water and potatoes. The Lawrence farm normally produces 70% of the potatoes currently needed by Greentree. The lower fields which make up a quarter of the farmland have been badly affected by flooding over the last few years and most of the crop from those fields has been unusable. Thomas has contacts with several neighbouring farmers and sources additional potato stock from them when possible. Greentree purchases potatoes from the farm at the prevailing market rate.

The vodka produced by Greentree is considered to be premium craft vodka and has been well received by customers and critics, winning an International Spirits Challenge Bronze tasting award. It is triple-distilled vodka. In simple terms, the alcohol is obtained by fermenting potatoes and passing the resulting mixture through a still three times, to purify the product. A still is a piece of distillation equipment that heats alcohol and siphons off the concentrated alcohol vapour. The type of still that Greentree uses is a copper pot still.

Following the success of the vodka, Susan and Bethany decided to try their hand at gin, using the vodka as the base spirit. Gin is produced by adding natural plant-derived flavours, known as 'botanicals', to a base spirit. Juniper is the one botanical common to all gin. The base spirit absorbs the flavour of the botanicals. Greentree makes its gin by putting twice-distilled vodka back into the pot still with the botanicals. Greentree gin was launched in Yr51 and has been favourably received by the market with strong sales growth since launch. Greentree gin is distinctive due to its yellow colour. This is due to the use of the spice, saffron, imported from Iran as one of the botanicals.

## *Distribution and sales*

Greentree makes both wholesale and direct sales. Greentree has contracts with two distributors. Each distributer accounts for 50% of wholesale sales. Greentree delivers monthly to the distributors, who advise Susan by email if they need any items in addition to the contracted amounts. They are invoiced monthly.

Direct sales are made to local businesses and through the company website. No credit is offered on direct sales. Susan maintains a list of the sales made and passes that information to her mum at the end of each week.

The distributors are responsible for promoting the products and getting products placed with retailers. Direct sales marketing is mainly through the company website and social media outlets.

## *Bank funding*

Greentree has a £200,000 ten-year bank loan, which is due for a bullet repayment on 31 January Yr58. It also has a £100,000 overdraft facility with the bank. Greentree is required to submit quarterly accounts to the bank as part of the terms of these facilities. These should be submitted within one month of the quarter end.

The bank has imposed several covenants on Greentree. The key financial covenants are:

- interest cover must not be less than three times, based on profit before interest and tax
- gearing should be a maximum of 85% (comparing bank loan to capital employed)
- the current ratio must not be less than 1.0

### *Other relevant information*

HMRC charges excise duty on spirits at a rate of £28.74 per litre of pure alcohol (100% ABV (alcohol by volume)). Excise duty is payable by the distiller. Greentree pays excise duty per 70cl bottle as follows:

| | £ | |
|---|---|---|
| Greentree vodka (40% ABV) | 8.05 | (£28.74 x 40% x 0.7 litres) |
| Greentree gin (41% ABV) | 8.25 | (£28.74 x 41% x 0.7 litres) |

Each bottle has 14, 50ml servings. A serving contains two units of alcohol.

Walker & Mason prepares the financial statements, lodges the relevant returns with Companies House and submits the company tax return for Greentree.

In addition to the directors, who carry out all administrative work, Greentree employs ten members of staff.

There are currently three copper pot stills. The largest one cost £60,000 when purchased in Yr48. Two smaller pot stills were acquired for £40,000 each in Yr51 when gin production started. Production is almost at maximum capacity and Greentree is considering the purchase of a new large still. It is likely that Greentree will be able to obtain a grant to fund the entire purchase.

# Section 2

## Financial information for the last three years

### *Greentree Spirits Limited*

**Profit and loss accounts for the three years ended 30 June**

| | Note | Yr57<br>£'000 | Yr56<br>£'000 | Yr55<br>£'000 |
|---|---|---|---|---|
| Turnover | 1 | 1,300 | 1,147 | 1,044 |
| Cost of sales | 1 | (833) | (759) | (673) |
| Gross profit | | 467 | 388 | 371 |
| Staff costs | | (185) | (179) | (164) |
| Depreciation | | (16) | (16) | (15) |
| Selling and distribution | | (147) | (132) | (121) |
| Repairs and maintenance | | (14) | (7) | (13) |
| Administrative expenses | | (15) | (8) | (8) |
| Profit before interest and tax | | 90 | 46 | 50 |
| Finance costs | | (12) | (10) | (9) |
| Tax charge | | (15) | (6) | (8) |
| Profit for the year | | 63 | 30 | 33 |

**Note 1 – Turnover and cost of sales**

| | Yr57<br>£'000 | Yr56<br>£'000 | Yr55<br>£'000 |
|---|---|---|---|
| Turnover – wholesale | 645 | 617 | 579 |
| Cost of sales – wholesale | (519) | (497) | (441) |
| Gross profit – wholesale | 126 | 120 | 138 |
| | | | |
| Turnover – direct | 655 | 530 | 465 |
| Cost of sales – direct | (314) | (262) | (232) |
| Gross profit – direct | 341 | 268 | 233 |

**For the year ended 30 June Yr57, the cost and sales price per 70cl bottle (net of VAT) were:**

| | Vodka £ | Gin £ |
|---|---|---|
| Raw materials | 0.90 | 1.10 |
| Labour | 1.35 | 1.50 |
| Variable overhead | 0.81 | 1.56 |
| Spirit duty | 8.05 | 8.25 |
| Total production cost per unit (70cl bottle) | 11.11 | 12.41 |

| | Price per unit £ | Units sold |
|---|---|---|
| Vodka | | |
| Direct sales price | 22.50 | 13,200 |
| Wholesale price | 13.10 | 20,450 |
| Gin | | |
| Direct sales price | 26.50 | 13,500 |
| Wholesale price | 16.00 | 23,540 |

## Greentree Spirits Limited

**Balance sheets as at 30 June**

| | Note | Yr57 £'000 | Yr56 £'000 | Yr55 £'000 |
|---|---|---|---|---|
| **Non-current assets** | | | | |
| Tangible fixed assets | | | | |
| Buildings | | 247 | 251 | 255 |
| Plant & machinery | | 17 | 28 | 39 |
| Fixtures & fittings | | 5 | 3 | 4 |
| | | 269 | 282 | 298 |
| **Current assets** | | | | |
| Stock | | 43 | 20 | 9 |
| Debtors | | 129 | 73 | 53 |
| *Total current assets* | | 172 | 93 | 62 |
| **Current liabilities** | | | | |
| Bank overdraft | 2 | 99 | 56 | 32 |
| Bank loan – current | 2 | 200 | - | - |
| Trade creditors | | 28 | 15 | 13 |
| Other creditors | | 25 | 21 | 23 |
| *Total current liabilities* | | 352 | 92 | 68 |
| **Net current assets / (liabilities)** | | (180) | 1 | (6) |
| **Non-current liabilities** | | | | |
| Bank loan | 2 | - | 200 | 200 |
| Deferred tax | | 26 | 24 | 22 |
| | | 26 | 224 | 222 |
| **Net assets** | | 63 | 59 | 70 |
| **Shareholders' funds** | | | | |
| Share capital | 3 | 10 | 10 | 10 |
| Retained earnings | 4 | 53 | 49 | 60 |
| *Total shareholders' funds* | | 63 | 59 | 70 |

**Note 2 - Financing**

Greentree has a £100,000 overdraft facility and a £200,000 ten-year loan with the bank which is due for repayment on 31 January Yr58. The bank charges interest at 3.5% above base rate.

**Note 3 – Share Capital**

Share capital consists of 10,000 £1 fully paid-up shares.

**Note 4 – Retained earnings**

| | 30 June Yr57 | 30 June Yr56 | 30 June Yr55 |
|---|---|---|---|
| | £'000 | £'000 | £'000 |
| Opening retained earnings | 49 | 60 | 60 |
| Profit for the year | 63 | 30 | 33 |
| Dividends paid | (59) | (41) | (33) |
| Closing retained earnings | 53 | 49 | 60 |

## Section 3

### Information from Susan about the new product options

*Note: All figures are net of VAT unless otherwise stated.*

### *Option 1 – Apple and elderflower flavoured vodka*

This product would be made by infusing our premium vodka with apples and elderflowers for three days prior to bottling. I've got contacts with a couple of nearby orchards who could supply the apples. Elderflowers grow across the farm but have a short harvest season of late May to mid-June. These must be handpicked. Freezing or drying of fresh elderflowers diminishes the flavour and, although possible, is not recommended. I estimate that we would produce sufficient elderflowers to flavour 3,000 bottles. Apples harvested in the autumn can be stored for up to 12 months.

This product would be 37% ABV and would sell at £13.50 (wholesale) and £23.00 (direct sales). One of our distributors has expressed interest in this product and their preliminary estimate is that they would be able to take 250 bottles per month in the first year and 400 bottles per month in years 2 and 3. I'd expect direct sales to be no more than 100 bottles per month initially.

The additional costs involved per bottle in manufacturing the product are as follows:

| | £ |
|---|---|
| Additional raw materials | 0.45 |
| Additional labour | 0.25 |
| Additional overheads | 0.10 |

Once the product has been distilled, it has a shelf life of two years.

### *Option 2 – Blackberry gin liqueur*

Our current gin sells very well, so we don't want to dilute our market share. I think that a gin-based liqueur would make an excellent product as it can be drunk alone, or with a mixer, or used in a cocktail e.g. with sparkling wine.

To manufacture the liqueur, we would take half a bottle (35cl) of our current gin, add the same volume of sugar syrup (35cl) and then infuse with blackberries for seven days. It would be bottled in a 70cl bottle, with similar packaging to our current gin. The liqueur would be 20% ABV and the additional manufacturing costs involved per bottle would be:

| | £ |
|---|---|
| Additional raw materials | 2.68 |
| Additional labour | 0.15 |
| Additional overheads | 0.10 |

The wholesale sales price would be £12 per bottle with a direct sales price of £18. I've had preliminary discussions with a local distributor who supplies various racecourses and other sporting venues. He has indicated that he would be willing to enter into a contract to take 4,000 units each year.

Discussions with local bars and restaurants have been positive and I would anticipate that we could sell around 1,000 bottles each year from direct sales.

### *Option 3 – Vodka and apple alcopop*

An alcopop is a ready-mixed drink that resembles a soft drink but contains alcohol. This would be a bit of a departure from our normal premium product, but I've estimated we could produce a 275ml bottle with 4.5% ABV for £1.12 per bottle including spirit duty. As this is a new area I'm less sure about the sales price. We would be selling in cases of four and would want to sell to the distributor at a margin on sales of between 10% and 20%. I don't think we would make any direct sales, at least not initially.

My initial research suggests that a case of four own-brand supermarket alcopops retails to the consumer at £4.00 - £5.00, inclusive of VAT.

The manufacturing process would be to take twice-distilled vodka and mix it with water and carbonated apple sugar syrup. One of our distributors has said that they would take 500 cases a month for £5.30 per case, excluding VAT, for the first year, increasing to 800 cases for years 2 and 3.

# Section 4

## Press cuttings and other relevant industry information

*Demand for premium spirits continues – www.thespiritsbusiness.co.uk July Yr57*

Recent research has shown that the UK demand for premium spirits is still increasing despite stagnation in overall spirit consumption. An increasingly more health-conscious population is drinking spirits less frequently but choosing premium products when they do drink. There is heightened interest in the provenance, ingredients and stories behind products and brands.

All the large distillers report sales increases for their premium brands, whilst many of the mainstream brands are showing a fall in sales.

Premium spirits are mainly purchased from smaller, specialist retailers but some of the larger craft brands have been picked up by upmarket supermarket chains.

Vodka is the most popular spirit in Britain, with a market share of 30.1%. To put this into context, its nearest rivals are whisky at 25.2% and gin at 22.3%, according to a Yr56 report by the Wine and Spirit Trade Association.

*Minimum pricing – Centre for Retail Research, September Yr57*

Data released by the Home Office shows that irresponsible drinking costs the taxpayer in the region of £21 billion a year. There are around a million alcohol-related violent crimes and a similar number of alcohol-related hospital admissions every year.

Lobbyists had called for a minimum price of 50p per unit of alcohol to be introduced which has now been enacted in all countries in the UK with the exception of Northern Island. They argued that a minimum unit price would impact heavy drinkers and young drinkers, but would have relatively little impact on older, more moderate drinkers.

The extension of the sugar tax (implemented in year 57) to include fruit-based alcopops, will increase the price of the average 275ml bottle by approximately 7p, but this is unlikely to significantly reduce alcopop sales.

*Flooding continues to take its toll – Potato Farmer Monthly, September Yr57*

Research published by Somerset University has shown a significant deterioration in soil quality for potato growing in those areas in England which have been affected by repeated flooding over the past few years. The flooding appears to have changed the nutrient makeup of flooded soil. The result is a decrease in pH level on average of 0.8. Potatoes grow best in soil with a pH level of 5.0-5.5 and the increased acidity can have a significant impact on yield.

The team at Somerset University expects that this pH change may well be permanent and farmers may need to make significant investment in rebalancing the acidity through one of the various liming methods available to continue to use the land for arable farming.

*Craft boom continues in the UK – www.craftdistillingexpo.co.uk October Yr57*

According to data collected for the fifth annual Craft Distilling Expo set to take place in Birmingham in November, 54 craft distilleries are expected to open in the UK by the end of this year, compared to 38 last year.

The craft spirit trend shows no sign of abating as consumer demand for independent, heritage-driven products continues to grow. Gin continues to be the most popular spirit for small UK distilleries to produce, but there has also been an increase in the production of vodka and fruit spirits. Applications for UK distillery licences are projected to remain at similar levels in Yr58.

Small distilleries mainly sell wholesale through independent off-licences and through direct online sales. They can't compete with the marketing clout of the big players and mainly use social media to generate interest. Scott Farrow of Supercross Craft Distillers said, "For us it is all about farm to bottle. We have to create super premium spirits because that's where the smaller distillers can compete, you are creating unique products. When you are only producing a batch of 300 bottles at a time, costs tend to be high."

*Big distillers react to the craft spirit boom – newsblog.com, October Yr57*

The recent boom in craft spirits hasn't gone unnoticed by the big players in the spirits market and they are finally starting to react. Three major brands have all launched new UK products in the last few months aimed at the craft spirit market with new premium gin, vodka and rum brands. Reviews of these products have been mixed, but generally favourable.

Whilst the products from the big players lack the provenance and home-grown feel of true craft products, the sheer volume that the large distillers can produce is likely to have an impact on the craft market in the future. However, a number of analysts have argued that craft players are "growing their share more by expanding the category than by stealing share" and are not currently a "meaningful threat" to large distillers.

# SECTION 5

## Key ratios

| | 30 June Yr57 | 30 June Yr56 | 30 June Yr55 | Method of calculation |
|---|---|---|---|---|
| Gross profit margin | 36% | 34% | 36% | = gross profit / sales |
| Net profit margin | 7% | 4% | 5% | = profit before interest and tax / sales |
| Current ratio | 1.13 | 1.01 | 0.91 | = current assets / current liabilities (excluding bank loan) |
| Interest cover | 8 times | 5 times | 6 times | = profit before interest and tax / interest expense |
| Gearing | 76% | 77% | 74% | = bank loan/ capital employed * |

* capital employed = total equity + bank loan

**END OF PAPER**